

CITY OF
WOLVERHAMPTON
COUNCIL

Health Scrutiny Panel

21 September 2023

Time 1.30 pm **Public Meeting?** YES **Type of meeting** Scrutiny
Venue Committee Room 3 - 3rd Floor - Civic Centre

Membership

Chair Cllr Susan Roberts MBE (Lab)
Vice-chair Cllr Paul Singh (Con)

Labour

Cllr Carol Hyatt
Cllr Jaspreet Jaspal
Cllr Milkinderpal Jaspal
Cllr Rashpal Kaur
Cllr Asha Mattu
Cllr Gillian Wildman

Conservative

Cllr Sohail Khan

Co-opted Members

Stacey Lewis (Manager of Health Watch Wolverhampton)

Quorum for this meeting is three voting members.

Information for the Public

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Agenda

Part 1 – items open to the press and public

Item No. *Title*

MEETING BUSINESS ITEMS

- 1 **Apologies**
- 2 **Declarations of Interest**
- 3 **Minutes of previous meeting** (Pages 3 - 12)
[To approve the minutes of the previous meeting as a correct record.]

DISCUSSION ITEMS

- 4 **CQC Inspection Report on the Black Country Healthcare NHS Foundation Trust Adult Acute Service** (Pages 13 - 32)
[Black Country Healthcare NHS Foundation Trust Adult Acute Service to deliver report to the Panel]
- 5 **Maternity Services RWT** (Pages 33 - 246)
[Maternity Services for Royal Wolverhampton NHS Trust to deliver a report to the Panel]
- 6 **RWT Quality Accounts** (Pages 247 - 332)
[The Royal Wolverhampton NHS Trust to present their Quality Accounts 2022 – 2023]
- 7 **Healthwatch Annual Report** (Pages 333 - 356)
[Healthwatch Wolverhampton to deliver report to Panel]
- 8 **Date of next meeting**
[The date of the next meeting is 14 December 2023]

Attendance

Members of the Health Scrutiny Panel

Cllr Carol Hyatt
Cllr Jaspreet Jaspal
Cllr Milkinderpal Jaspal
Cllr Rashpal Kaur
Cllr Sohail Khan
Stacey Lewis (Manager Healthwatch Wolverhampton)
Cllr Asha Mattu
Cllr Susan Roberts MBE (Chair)
Cllr Paul Singh (Vice-Chair)
Cllr Gillian Wildman

In Attendance

Paul Tulley (Managing Director Integrated Care Board)
Sally Sandel (Head of Primary Care and Place Commissioning Integrated Care Board)
Leslie Peplow (Service Manager for Audiology Royal Wolverhampton Trust)
Anna Butters (Involvement Specialist Wolverhampton – Black Country Integrated Care Board).
David Loughton (Group Chief Executive Royal Wolverhampton Trust)
Hina Rauf (Engagement Officer Healthwatch Wolverhampton)

Employees

Lee Booker (Scrutiny Officer)
John Denley (Director of Public Health)
Madeleine Freewood (Public Health Partnership & Governance Lead)

Part 1 – items open to the press and public

Item No. *Title*

- 1 **Apologies**
There were no apologies for absence

- 2 **Declarations of Interest**
Cllr Jaspreet Jaspal declared a pecuniary and non-pecuniary interest in agenda item 4 as she was employed as a Optometrist.

3 **Minutes of previous meeting**

Resolved: That the minutes of the meeting held on 21 March 2023 be approved as a correct record.

4 **Hearing Aids**

The Chair informed the Panel that Councillor Jaspreet Jaspal had left the room due to a pecuniary interest.

The Managing Director Wolverhampton (ICB) informed the Panel that they commissioned audiology in two ways; hearing aid fitting and hearing aid assessments were done through any qualified provider (AQP) contract; the main provider of the service in Wolverhampton for over 55's was Specsavers. This service was covered by the National Health Service financially so patients would not have to pay. For patients with hearing loss or complex ear issues under the age of 55, the service was commissioned by the Royal Wolverhampton Trust at West Park Hospital. The Managing Director Wolverhampton (ICB) informed the Panel that some patients would have a build up of ear wax which could contribute to hearing loss and also delay the inspection and installation of hearing aids. He said two principal methods were used to remove ear wax: ear irrigation and micro-suction. Previously the service was carried out almost exclusively by General Practitioners, utilising ear syringing methods; however, NICE guidance that was issued in 2018 recommended this practice no longer be used. Ear wax removal services now varied across General Practices in regard to service levels provided to patients. In Wolverhampton, 9 Practices offered the service in relation to removing ear wax to enable the provision of hearing aids. 21 General Practitioners provided the service through Penn Fields, via micro-suction, which had increased the uptake in ear wax removal since the service began in October 2020. He recognised that ear wax removal service provision varied across the Black Country and he informed the Panel the Integrated Care Board were looking to implement a more consistent approach across services.

A Panel member enquired about the listed hearing aid warranty period, which lasted 3 years. He wanted to know how a patient went about replacing their hearing aids after the warranty. He also wanted to know how many, if any others, providers for hearing services were there, aside from Royal Wolverhampton Trust and Specsavers. He also asked if they had the data showing how many people in Wolverhampton had a hearing aid.

The Service Manager for Audiology at the Royal Wolverhampton Trust stated that after 3 years, if a patient came with a faulty hearing aid, they would be re-assessed and provided with a new hearing aid. The Service Manager for Audiology at the Royal Wolverhampton Trust replied that there was around 6 providers for AQP, but it was the decision of the General Practitioners where they designated patients to. She reported issues in service pathways, with patients being unnecessarily sent to the RWT, rather than an AQP provider, which then required a discharge back to the GP to then be re-referred.

The Managing Director (ICB) told the Panel they did not have figures on how many people in the City had a hearing aid.

The Councillor replied informing the ICB team that National Statistics were available, so he could not understand why localised data was not available. The Service Manager for Audiology at the Royal Wolverhampton Trust stated that they would be able to in the future.

A Councillor stated that the pathways issues information was only anecdotal and that they would have liked quantitative data supplied for more substantial evidence and information, which could have helped them identify what is causing the pathway issues and enable rectification planning.

The Service Manager for Audiology at the Royal Wolverhampton Trust explained that it was difficult information to quantify due to the variety of reasons why patients would be moved around multiple pathways. An example was given where they referred to a patient who needed a hearing aid, but the patients ear was full of wax, meaning they could not assess and fit it until the patient had been re-referred to earwax removal services, this would be considered a wasted appointment. She stated the issues were arising due to the number of providers and no one was working together.

The Vice Chair discussed the demand on GPs and suggested the Royal Wolverhampton Trust look into utilising pharmacies to take some pressure off, he wanted to know if hearing aid checks could be done via pharmacies. He also stated that in his experience, GPs didn't ask you how your hearing was, as part of a standard routine health check, he wanted to know if this could be incorporated into standard practice for GPs.

The Service Manager for Audiology at the Royal Wolverhampton Trust stated that pharmacies would not have the equipment, training or skill level to carry out audiological tests that patients required. The Managing Director Wolverhampton ICB said that they would look into streamlining patient pathways.

The Chair stated that patients using private providers working on behalf of NHS patients were not getting the callbacks required and highlighted further that the service was not consistent due to the mixed nature of the provision. She wanted Healthwatch to try to conduct a survey and find out more about patient experiences in audiological healthcare.

The Managing Director Wolverhampton ICB replied that they had not picked up on this during their reviews with contractors but would seek to investigate it before the next review.

A Councillor highlighted that GPs and Doctors were very varied in how they delivered services in relation to hearing, due to the way they had autonomy of management. She was concerned that this lack of centralisation and consistency could lead to difficulties with new Doctors starting who may not be aware of pathways and services for hearing treatment and wanted to know how the ICB dealt with this.

The Service Manager for Audiology at the Royal Wolverhampton Trust replied that they currently were not informed how often a GP changes at a practice and if they did know this, they would be able to work out how often training and procedural reviews would need to be carried out across all practices.

The Councillor replied that she wanted them to ensure this became a routine process

and did not get forgotten about, especially if some practices had settled doctors.

The Chair stated she was concerned about those companies who fitted and provided the hearing aids, not calling patients back to check if they had any hearing aid issues or concerns either at all or within a reasonable time frame. Whilst some may call back after 12 months, the hearing aid warranty was 3 years and she wanted to know what happened once the warranty period was over in terms of patient care.

The Service Manager for Audiology at the Royal Wolverhampton said she could not speak for other qualified providers but patients being treated and serviced by the RWT had open access to call and book in an appointment to have their hearing aid checked if they had any issues. She said the RWT had backlogs and that they were doing the best they could with the resources they had.

The Chair asked how big the backlogs were.

The Service Manager for Audiology at the Royal Wolverhampton Trust stated that the worst backlogs they had were for those who required re-assessments after 3 years, which was at 24 weeks. The Service Manager for Audiology at the Royal Wolverhampton Trust said they were dealing with backlogs from Covid and that new patients were given priority as they didn't have anything, thus contributing to pushing back those current patients in need of a reassessment.

A Councillor asked if backlogs could be included in future reports as this was critical information.

A Councillor discussed the difference between public sector healthcare providers and private sector healthcare providers. He said he felt it was important the Panel remembered that the issues highlighted were with the private providers and less so the public sector providers. He stated that the communication and partnership approach needed to be improved to ensure people obtain the best healthcare, with considerations given to the two differing motives of the two sectors.

The Chair discussed further the issues facing patients who were using services which were both public and private and the communication issues and lack of oversight this combination was creating. She asked if Healthwatch would be able to do a survey of patients and service providers to gather data on this issue. She was also concerned that NICE guidance had had NHS providers stop using ear syringing but some private providers were still using this system.

Managing Director Wolverhampton (ICB) replied that he was not aware of those issues from those service providers but would look into it.

The Manager of Healthwatch Wolverhampton explained they had limited capacity with the years workplan already in motion. She stated that if the survey of the hearing service was a light touch approach, they could get something done in 2023, but anything else would require longer term planning to achieve. She wanted to know if the Chair was happy with a light touch approach.

The Panel confirmed that the request would be a light touch approach.

Resolved: That Healthwatch work with the Council's partners in the Black Country

ICB to check into the hearing aid provision and ear wax services and bring this data along side partners back to the Panel at a future date.

5 **Patient Participation Groups**

The Managing Director Wolverhampton (ICB) informed the Panel the Integrated Care Board (ICB) had contacted all Practices and Patient Participation Group (PPG) Chairs to find out what their position was in terms of PPG activity and progress getting operational again post-covid. There were a total of 37 practices, 30 reported back that their PPG had met at least once in the previous 6 months, where as the other 7 had not but had plans to re-establish their PPGs. The Managing Director Wolverhampton (ICB) informed the Panel that to support the full operational re-establishment of PPGs, they had delivered training to Practice Managers, as well as the Chairs of PPGs. They had also launched a webpage within their web domain with supporting information about PPGs which Practice Managers and PPG Chairs could access. He said the ICB was supportive and encouraging of the function of PPGs.

The Vice-Chair stated that 20 percent of the surgeries were not fulfilling their contract because their PPGs were not active and not meeting. He wanted to know what penalties could be applied to practices which were not ensuring their PPGs were active and meeting, he said he believed a meeting every 6 months was not enough and felt quarterly meetings would be appropriate to the needs of a PPG.

The Managing Director Wolverhampton (ICB) explained to the Panel that the contracts did not have stipulations wherein penalties were required. He said he felt the information previously given showed practices were moving towards re-establishing functioning PPGs.

The Vice-Chair thanked the Managing Director Wolverhampton (ICB) for explaining the contractual situation but stated that he did not understand the purpose of having contractual obligations if the practices were not going to meet them, he wanted to know how accountability could be kept if there was not any system in place to keep the practices in check in delivering PPGs.

The Managing Director Wolverhampton (ICB) answered that all active PPGs were meeting quarterly or bi-monthly.

A Councillor debated the Vice-Chair's position, stating he felt it was not possible for the Practices to get the volunteers for a PPG if members of the public did not want to engage.

The Manager of Healthwatch Wolverhampton replied to the Councillor that all evidence Healthwatch had gathered countered his claims, as it showed members of the public were invested in PPGs and that barriers to participation were the issue, with feedback participants complaining that PPGs were not being run properly. She said practices needed to do more to inform and encourage the public to join and to ensure that when members of the public did apply to join, that they were being responded to. She said a website was not enough, she said posters in the surgery,

as well as using the automated texting service could be ways forwards to addressing some of this.

A Councillor discussed the voluntary nature of the PPGs, explaining that those attending and running it were members of the public. She stated that the PPG for her local area struggled to get the Practice Manager, who was employed, to turn up to PPG meetings. She said the ICB needed to further support PPGs to ensure relevant employees of practices attended. She highlighted the money spent, in general industry, to gather data and compared this to the PPG which was cost free. She explained that there was no financial incentive for practice employees to turn up. She was of the view that some PPGs were not properly administered.

The Manager of Healthwatch Wolverhampton agreed with the Councillor that more support was needed to ensure PPGs functioned as required. She said she would like to see the training that was being delivered. She informed the Panel that a lot of feedback they had had from the public from those who did participate in PPGs was that they feared retribution from being critical towards their Practice. She wanted to know when the ICB would be checking up on the 7 practices that did not have active PPGs to see that they had begun to meet in the future. She also supported the Vice-Chairs comments about the regularity of meetings needing to be quarterly.

The Managing Director Wolverhampton (ICB) stated that he was happy to share the training materials with Healthwatch Wolverhampton. He stated that the training being provided was them trying to support the PPGs to improve their functioning. He stated that they would be following up on the 7 practices without active PPGs and would like to bring a future report back to the Panel to update them on progress on this. He informed the Panel that contractually, it was the responsibility of the practices to support and ensure the operation of PPGs.

A Councillor highlighted how busy surgery staff were and how overworked they were. She said whilst they need PPGs to work, understanding had to be given towards the members of staff. She asked if the ICB could have a conversation with the practices to see if time off could be allowed for staff to take the training for PPGs.

The Managing Director Wolverhampton (ICB) replied saying that he agreed, members of staff who take on extra responsibilities should be supported by their practices. He said they would be recording the training which will allow staff who cannot attend the training to watch after it had taken place.

A Panel member wanted to know how the PPGs with practices were contributing to equality outcomes. He also wanted to know what time frame the re-establishment of PPGs on the 7 who reported to not have active PPGs was. In the report set to comeback on these PPGs, he wanted inequalities to be taken into consideration, based upon ward area.

The Managing Director Wolverhampton (ICB) stated that they were engaging with these issues at a Primary Care Network (PCN) level and that the PCNs would complement the PPGs in this area. He stated that at a City wide level they were engaging with the creation of a People's Panel.

The Director of Public Health discussed the difficulties the National Health Service was facing and stated that extra resources and money were not available. He said

that because of this, it was important for partnership working to succeed and for the General Practices to utilise their PPGs because it would give them vital insights into what was occurring in their local communities and this could help a stretched service. He highlighted that this was the aim of One Wolverhampton.

The Managing Director Wolverhampton (ICB) agreed with the Director of Public Health that a joined up approach was necessary.

A Councillor sought clarification from Healthwatch Wolverhampton in their use of the term “retribution”, she wanted them to expand on what they meant by this and asked if they could give an example of what this retribution was. The Manager of Healthwatch Wolverhampton replied citing a number of examples where they had been told by PPG members that they were fearful of raising issues, especially ones critical of their GPs in case they would be removed from the GP list, or that it would get back to their specific doctor. She reported in one case a Doctor had raised with a patient that they had heard they had complained about them. She said they felt this inhibited the effectiveness of the PPGs.

The Councillor replied that she was not happy to hear this and felt it was bad practice which needed looking into. The Chair agreed and stated that this was why Healthwatch carried out its surveys and why it was brought to Scrutiny so that they could raise these issues.

The Managing Director Wolverhampton (ICB) replied that it was concerning to hear such reports and that this was not in the spirit of how PPGs were supposed to be ran. He stated that he hoped Healthwatch Wolverhampton would raise specific instances like this with them, so that they could investigate and speak to the Practices concerned.

A Panel member asked if the ICB was aware of what barriers there had been to the reestablishment of PPGs post-pandemic lock down.

A member of the ICB replied that barriers to re-establishing PPGs were that they needed to be larger to work better. She said that some previous members had either passed away or lost interest and re-engaging was the challenge.

Resolved: that The Black Country ICB report back to the Panel with ward based data on the activity and activeness of PPGs within practices relevant to the ward and that the ICB seek to engage members of the public at local community events advertising PPGs.

- 6 **Wolverhampton Joint Local Health and Wellbeing Strategy 2023- 2028**
The Public Health Partnership and Governance Lead gave a presentation on the Joint Health & Wellbeing Strategy 2023 – 2028 (A copy of the presentation is attached to the signed minutes). The new health and social care landscape had been shaped by the introduction and implementation of the Health and Social Care Act 2022 which had brought in a new system to govern regional and local NHS bodies. This structure was the introduction of the Integrated Care Systems (ICS), of which local Integrated Care Boards (ICB) and Integrated Care Partnership (ICP) formed two key components. The new strategy was rooted in this new structure. The Public Health Partnership and Governance Lead then listed some general feedback they had received from hosting a development session. The general message was that

the Health and Well Being Together Board needed to be more integrated into the local situation. In addition as to how complex the makeup of healthcare locally was, which meant that the Board needed to have greater clarity and focus on its priorities. Pathways could become disjointed across the city's healthcare due to the complexity. Priorities were developed through gathering data through multiple targeted surveys, as well as utilising broader City wide data and Partner consultation. An aim to reduce health inequalities for new-borns was discussed, with a 1001 first days strategy which included health support for parents. Reducing harm caused by alcohol, drug and other addictions (such as gambling) was another "high-level ambition", as well as "getting people moving more", policies to encourage physical activity by the people of Wolverhampton to improve health. Improving the City's mental health was another priority.

A Councillor asked if the terminologies used could be changed and made more simply, he cited "place based" as a term he disliked and suggested alternatives.

The Director of Public Health stated he felt people cared less about what terminologies were used and more about receiving good quality joined up healthcare when they needed it. He referenced the statistics which showed Wolverhampton's alcohol induced death statistics being higher than the national average and contrasted this with Wolverhampton's healthcare support for alcoholics which had higher success rates than the national average. He said this showed a joined up approach was required as environment played a strong role in reinforcing alcoholism which was why it was important to take up the approach set out in the Health and Well Being Strategy.

A Councillor referred to the report and said she couldn't see where the voice of a Secondary or Primary School head teacher would be heard. She enquired where their voices would come in and be heard, within the new structure.

The Public Health Partnership and Governance Lead stated that a sub board called the Children and Families Together Board had head teachers and youth representatives on it.

A Councillor referred to the report, where it discussed "the seamless transition from child to adult care services" and stated she had concerns about how this system worked during the transition of someone from 17 to 18, which could lead to them being removed off the books until a crisis occurred and they needed help, the preventative aspect was lost.

The Public Health Partnership and Governance replied that having it as part of their strategy allowed a spotlight to be shone upon those issues.

Discussion occurred between Panel members and the Director of Public Health about ward deprivation and the definition of deprivation, which the Director of Public Health explained was relative.

The Chair sought to clarify if the ward data was based on old boundaries or the newer boundaries.

The Public Health Partnership and Governance confirmed they were based on the newer boundaries.

7 **Healthwatch Urology Survey Report**

The Healthwatch Engagement Officer informed the Panel that Healthwatch had carried out a survey between the 24th and 26th May 2023 with patients at the Urology services department, specifically to capture their experiences of the service and to see if they were aware of the service merger between Wolverhampton and Walsall Urology services. 38 surveys were conducted. People aged 66 to 70 and 76 to 80 account for the highest number of patients, with more men than women using the service. With the ethnicity primarily being white British. 22 people said the service was “good”, 6 people said “very good”, 7 said “satisfactory” and 1 person said “very bad”. The “very bad” rating was due to the patient not being informed they needed to bring a urine sample prior to the appointment, causing them to have to spend a long time in the hospital drinking water. The majority of patients stated that the department was not easy to find, car was the most common form of transport used, with comments stating that parking on the sites were inadequate and very expensive. Most patients stated they would prefer to be seen at New Cross, Wolverhampton over the Manor, Walsall. All patients stated they were not aware of the service merger. Overall feedback was that the service was mostly good but improvements needed to be made on department location awareness, travel options and parking availability/cost.

The Vice-Chair stated he enjoyed the report because it was simple and to the point, with gaps spotted which provided good scrutiny. He referenced a friend of his who was black Afro-Caribbean, suffering from prostate cancer; he stated statistically this community were more likely to suffer from prostate cancer at a younger age and wanted to know if any focus in future reports could look at racial disparities/willingness to attend healthcare.

A Councillor referred to the report and a quote where wheelchair accessibility was raised. She discussed the difficulties wheelchair users had in accessibility and travel and wanted more focus on this area of improvements; for example increasing blue badge spaces at the hospital car park.

The Chair agreed with and re-emphasised the points of the Panel, and especially highlighted and focused on the car parks issue. She wanted the Royal Wolverhampton Trust to conduct a report to bring back to the Panel in the future on car park improvements.

The Chief Executive Officer of the RWT agreed with the Chair that the car parking situation was bad. He said there were no quick fixes and that it would take at least 6 months to try improve it.

The Manager for Healthwatch Wolverhampton asked if there was a role public transport could play in strategy to offer an alternative to cars, for environmental purposes.

The Chair added that perhaps the Royal Wolverhampton NHS Trust could utilise a employee specific transport program to reduce the use of cars in employees which would free up parking spaces.

The Chief Executive Officer of the RWT stated that they were currently working with

the Council to deliver a transport scheme for staff.

Resolved: That the Royal Wolverhampton Trust conduct a report to bring back to the Panel in the future on car park improvements.

Health Scrutiny Panel



Black Country Healthcare
NHS Foundation Trust

Report title	BCHFT CQC Responsive Inspection. February 2023
Report of:	Marsha Foster Chief Executive Officer. BCHFT
Portfolio	Public Health and Wellbeing

Recommendation(s) for action or decision:

The Health Scrutiny Panel is recommended to:

1. Receive the contents of the report for information purposes

1.0 Introduction

1.1 During February 2023 the Care Quality Commission (CQC) undertook a responsive inspection of one BCHFT core service: Acute wards for adults of working age and psychiatric intensive care units

A responsive visit is an unscheduled inspection of services, initiated by incident surveillance, an increase in quality or safety concerns or adverse events leading to media coverage.

The final report was published by the CQC in May 2023. The Trust has seen a deterioration in the core service rating from Good to Requires Improvement, and a rating deterioration from Good to Requires Improvement in the key questions “*Effective, Responsive and Well-Led*”.

In accordance with Regulation 17(3b) of the Health and Social Care Act 2008 (Regulated Activities) Regulations 2014, the Trust has been required to provide a written report of the actions planned to ensure compliance with the Health and Social Care Act 2008.

Details of the required actions, BCHFT response and performance governance is detailed within the accompanying presentation.

2.0 Background

During February 2023 the Care Quality Commission (CQC) undertook a responsive visit to the BCHFT core service; Acute Wards and PICU services for Adults of Working Age

A draft report was received from the CQC in April 2023, and the factual accuracy submission completed within ten working days. Of the twenty four factual submissions, the CQC accepted thirteen in full, 5 partially and declined 6. A ratings review was not requested by the trust and the final report was published in May 2023.

2.1 Changes in CQC Quality Ratings

The Trust has seen a deterioration in the core service rating from Good to Requires Improvement, and a rating deterioration from Good to Requires Improvement in the key questions “*Effective, Responsive and Well-Led*”.

Movement for each rating is set out below in table one. Each arrow denoting a movement in the indicated direction by one grading. (NB two arrows would indicate a movement of two gradings)

Table one.

Ratings	
Overall rating for this service	Requires Improvement  
Are services safe?	Requires Improvement  
Are services effective?	Requires Improvement  
Are services caring?	Good  
Are services responsive to people's needs?	Requires Improvement  
Are services well-led?	Requires Improvement  

The *safe* domains remains rated as Requires Improvement and the *Caring* domain maintains a rating of Good.

2.2 BCHFT Aggregated quality ratings.

There has been no change in the Trust aggregated ratings as a result of the core service rating changes.

The trust has maintained its rating of good in the domains of Effectiveness, Caring, Responsiveness and Leadership, and has remained rated as Requires Improvement in the Safe domain.

1.0 Summarised outcomes

Areas of good practice and areas identified for improvement have been summarised below in table two.

Table two

Core service inspection findings. Areas of Good Practice	Core service inspection findings. Areas identified for improvement
<ul style="list-style-type: none"> Staff treated patients with compassion and kindness, respected their privacy and dignity, and understood the individual needs of patients. Staff actively involved patients and families and carers in care decisions. 	<ul style="list-style-type: none"> A need to focus on the management of medication and closer working with pharmacists. Improve training rates in core skills. Consistency and quality of care-planning. Recruit to vacancies within ward based MDT's.

- | | |
|---|---|
| <ul style="list-style-type: none">• Staff assessed and managed risk well and minimised the use of restrictive practices.• The ward environments were clean.• Managers ensured that staff received supervision and appraisal.• Staff followed good practice with respect to safeguarding. | <ul style="list-style-type: none">• Continue work on the physical environment, refurbishment and removal of ligature points.• Ensure that patients receive planned 1:1's and leave.• Focus on awareness of new systems and teams within the Trust |
|---|---|

2.0 Required actions

In conjunction with the final report, the CQC also required that a number of areas be addressed to improve services

All must do and should do actions are detailed below for scrutiny panel oversight.

4.1 Must do actions

Actions the trust MUST take are necessary to comply with its legal obligation as set out within the Health and Social Care Act 2008 (Regulated Activities) Regulations 2014.

Each requirement notices is aligned to one of the Health and Social Care Act 2008 (Regulated Activities) Regulations 2014.

1. The trust must ensure that patients have an opportunity to be involved in their care plans and are offered a copy of this. (Regulation 9. Person centred care)
2. The trust must ensure that all works to the environment to reduce ligature risks are completed. (Regulation 12. Safe care and treatment)
3. The trust must ensure the seclusion room at Macarthur Centre is updated to make the environment more comfortable for patients in seclusion. (Regulation 15. Premises and Equipment)
4. The trust must ensure that sofas and flooring on Friar Ward at Hallam Street are replaced to make the environment suitable and comfortable for patients. (Regulation 15. Premises and Equipment)
5. The trust must ensure that staff complete patient's physical health observations following administration of rapid tranquilisation. (Regulation 12. Safe care and treatment)
6. The trust must ensure that all staff receive training in basic life support and those eligible in immediate life support. (Regulation 12. Safe care and treatment)

7. The trust must ensure that the rapid tranquilisation policy informs staff clearly of the maximum dose of anti-psychotic medicines to be administered and what action to take if administering medicines off the manufacturer's license. (Regulation 17. Good Governance)
8. The trust must ensure that there are systems and processes in place to manage patients' restricted items. (Regulation (17. Good Governance)
9. The trust must ensure that there are sufficient staff so that patients have their escorted leave, regular one to one sessions with their named nurse and have access to psychology during their stay in hospital. (Regulation 18. Staffing)
10. The trust must ensure that all staff are aware of the teams available within the trust and the community to facilitate safe discharge from hospital for patients. (Regulation 17. Good Governance)

4.2 Should do actions.

These are actions the trust SHOULD take because it was not doing something required by a regulation but it would be disproportionate to find a breach of the regulation overall, to prevent it failing to comply with legal requirements in future, or to improve services.

1. The trust should ensure that the environment at Ambleside ward is redecorated and comfortable for patients. (Regulation 15. Premises and Equipment)
2. The trust should consider investing in the outside spaces and gardens on all wards to enable patients to enjoy time outside of the ward. (Regulation 15. Premises and Equipment)
3. The trust should consider having photographs on patients' medicine administration records so that all staff can easily identify patients. (Regulation 12. Safe care and Treatment)
4. The trust should consider how they manage daily rotas to ensure staff get sufficient breaks each shift. (Regulation 18. Staffing)
5. The trust should ensure that all staff have an opportunity to know about learning from complaints and incidents and the trust are assured that staff understand these. (Regulation 17. Good Governance).

5.0 Thematic grouping of required actions.

5.1 Health and Social Care Act 2008 (Regulated Activities) Regulations 2014 (Part 3)

These regulations introduced the fundamental standards, which describe requirements that reflect the recommendations made by Sir Robert Francis following his inquiry into care at Mid Staffordshire NHS Foundation Trust.

The regulations enable the CQC to pinpoint more clearly the fundamental standards below which the provision of regulated activities and the care provided to people must not fall, and to take appropriate enforcement action when it find it does.

The fundamental standards are set out below.

- Regulation 8: General
- Regulation 9: Person-centred care
- Regulation 10: Dignity and respect
- Regulation 11: Need for consent
- Regulation 12: Safe care and treatment
- Regulation 13: Safeguarding service users from abuse and improper treatment
- Regulation 14: Meeting nutritional and hydration needs
- Regulation 15: Premises and equipment
- Regulation 16: Receiving and acting on complaints
- Regulation 17: Good governance
- Regulation 18: Staffing
- Regulation 19: Fit and proper persons employed
- Regulation 20: Duty of candour
- Regulation 20A: Requirement as to display of performance assessments.

To support the thematic analysis of the outcomes from the responsive inspection, the totals for each should and must do's are set out below in table three, grouped by fundamental standard.

Table three

Regulation	Must do total	Should do total	Overall Total
Regulation 12: Safe care and treatment	3	1	4
Regulation 17: Good Governance	3	1	4
Regulation 15: Premises and equipment	2	2	4
Regulation 18: Staffing	1	1	2
Regulation 9: Person-centred care	1	0	1
Total	10	5	15

6.0 Report of Actions, Oversight and Governance.

In accordance with Regulation 17(3b) of the Health and Social Care Act 2008 (Regulated Activities) Regulations 2014, the Trust is required to provide a written report of the actions planned to ensure compliance with the Health and Social Care Act 2008.

Internal reporting on progress is maintained via the established reporting cycles of the Quality and Safety Steering Group, Quality and Safety Committee and Board of Directors. External performance reporting to the CQC will be via the established provider relationship meetings which take place each quarter with the regional team and inspection manager.

7.0 Decision/Supporting Information (including options)

N/A

8.0 Implications

1. Quality and Safety of Services delivered by BCHFT

9.0 Schedule of background papers

9.1 BCHFT Quality and Safety Steering group July 2023

9.2 BCHFT Quality and Safety Committee July 2023

- 10 The background papers relating to this report can be inspected by contacting the report writer:

Elizabeth Learoyd
Chief Officer

Healthwatch Wolverhampton
Freephone: 0800 470 1944
Direct line: 01902 810183
www.healthwatchwolverhampton.co.uk

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CQC Core Service Responsive Inspection

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BCHFT Adult working age inpatient services. February 2023



Together with you to achieve **healthier, happier lives**

Context to inspection and report

- February 2023 the Care Quality Commission (CQC) undertook a responsive inspection of one BCHFT core service: Acute wards for adults of working age and psychiatric intensive care units
- The final report was published in May 2023.
- The Trust has seen a deterioration in the **core service** rating from Good to Requires Improvement, and a rating deterioration from Good to Requires Improvement in the key questions “Effective, Responsive and Well-Led”.
- The safe domains remains rated as Requires Improvement and the Caring domain maintains a rating of Good.
- There has been **no change** in the Trust aggregated ratings as a result of the core service rating changes.
- The trust has maintained its rating of good in the domains of Effectiveness, Caring, Responsiveness and Leadership, and has remained rated as Requires Improvement in the Safe domain.



Core service ratings

Ratings

Overall rating for this service

Requires Improvement ●

Are services safe?

Requires Improvement ●

Are services effective?

Requires Improvement ●

Are services caring?

Good ●

Are services responsive to people's needs?

Requires Improvement ●

Are services well-led?

Requires Improvement ●

BCHFT Trust ratings

Ratings

Overall trust quality rating

Good ●

Are services safe?

Requires Improvement ●

Are services effective?

Good ●

Are services caring?

Good ●

Are services responsive?

Good ●

Are services well-led?

Good ●

Are resources used productively?

Inspected but not rated ●

Identified Good Practice

- Staff treated patients with compassion and kindness, respected their privacy and dignity, and understood the individual needs of patients.
- Staff actively involved patients and families and carers in care decisions.
- Staff assessed and managed risk well and minimised the use of restrictive practices.
- The ward environments were clean.
- Managers ensured that staff received supervision and appraisal.
- Staff followed good practice with respect to safeguarding.



Identified areas for improvement

- A need to focus on the management of medication and closer working with pharmacists.
- Improve training rates in core skills.
- Consistency and quality of care-planning.
- Recruit to vacancies within ward based MDT's.
- Continue work on the physical environment, refurbishment and removal of ligature points.
- Ensure that patients receive planned 1:1's and leave.
- Focus on awareness of new systems and teams within the Trust

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Must and Should do Actions

Must do actions = 10

Actions the trust MUST take are necessary to comply with its legal obligation as set out within the Health and Social Care Act 2008 (Regulated Activities) Regulations 2014

Should do actions = 5

These are actions the trust SHOULD take because it was not doing something required by a regulation but it would be disproportionate to find a breach of the regulation overall, to prevent it failing to comply with legal requirements in future, or to improve services.

Page 26

Requirement notices by Regulation.

Regulation 9: Person Centered Care = 1
Regulation 12: Safe care and Treatment = 3
Regulation 15: Premises and Equipment = 2
Regulation 17: Good Governance = 3
Regulation 18: Staffing = 1

“Should do’s” by Regulation.

Regulation 12: Safe care and Treatment = 1
Regulation 15: Premises and Equipment = 2
Regulation 17: Good Governance = 1
Regulation 18: Staffing = 1

Must do Actions

Action the service **MUST** take to improve:

1. The trust must ensure that patients have an opportunity to be involved in their care plans and are offered a copy of this. (Regulation 9. Person centred care)
2. The trust must ensure that all works to the environment to reduce ligature risks are completed. (Regulation 12. Safe care and treatment)
3. The trust must ensure the seclusion room at Macarthur Centre is updated to make the environment more comfortable for patients in seclusion. (Regulation 15. Premises and Equipment)
4. The trust must ensure that sofas and flooring on Friar ward at Hallam Street are replaced to make the environment suitable and comfortable for patients. (Regulation 15. Premises and Equipment)
5. The trust must ensure that staff complete patients physical health observations following administration of rapid tranquilisation. (Regulation 12. Safe care and treatment)
6. The trust must ensure that all staff receive training in basic life support and those eligible in immediate life support. (Regulation 12. Safe care and treatment)

Must do Actions

Action the service **MUST** take to improve:

7. The trust must ensure that the rapid tranquilisation policy informs staff clearly of the maximum dose of anti-psychotic medicines to be administered and what action to take if administering medicines off the manufacturer's license. (Regulation 17. Good Governance)

8. The trust must ensure that there are systems and processes in place to manage patients' restricted items. (Regulation 17. Good Governance)

9. The trust must ensure that there are sufficient staff so that a) patients have their escorted leave, regular one to one sessions with their named nurse and b) have access to psychology during their stay in hospital. (Regulation 18. Staffing).

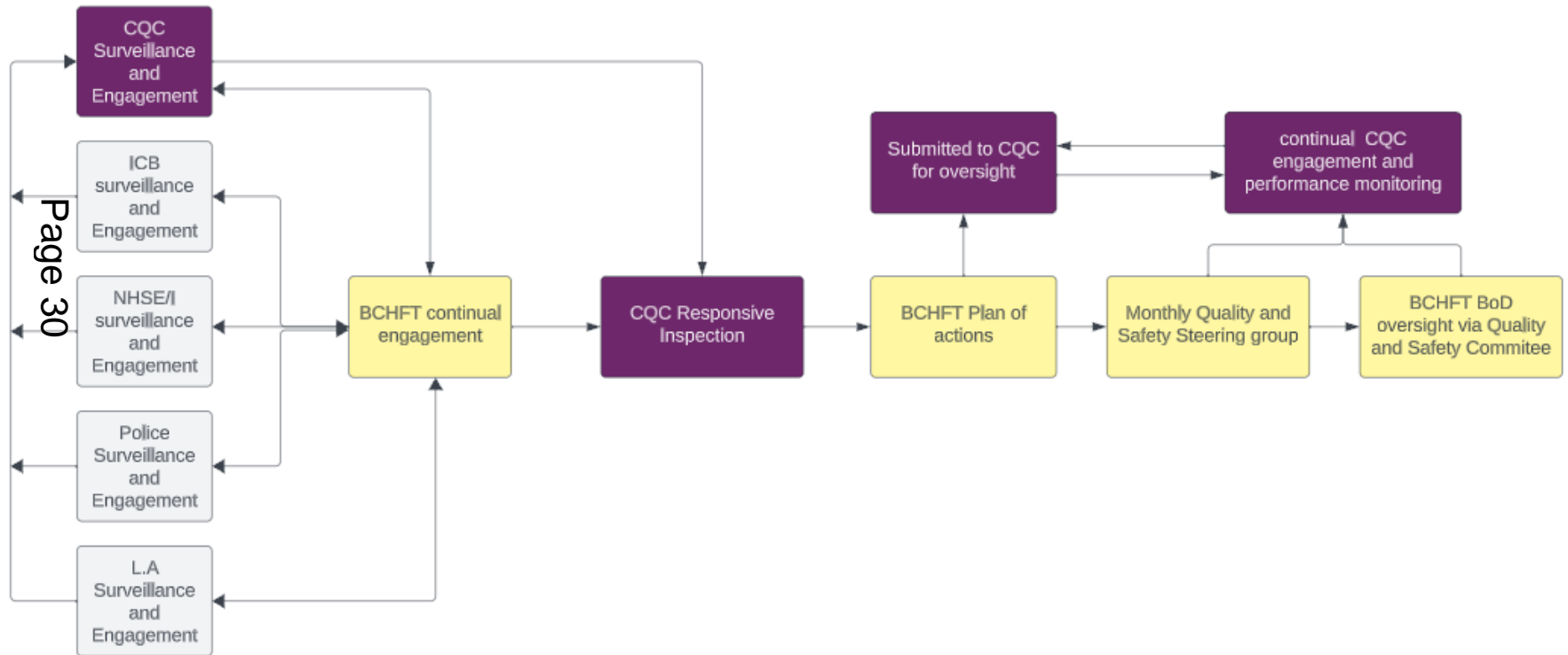
10. The trust must ensure that all staff are aware of the teams available within the trust and the community to facilitate safe discharge from hospital for patients. (Regulation 17. Good Governance)

Should do Actions

Action the service SHOULD take to improve:

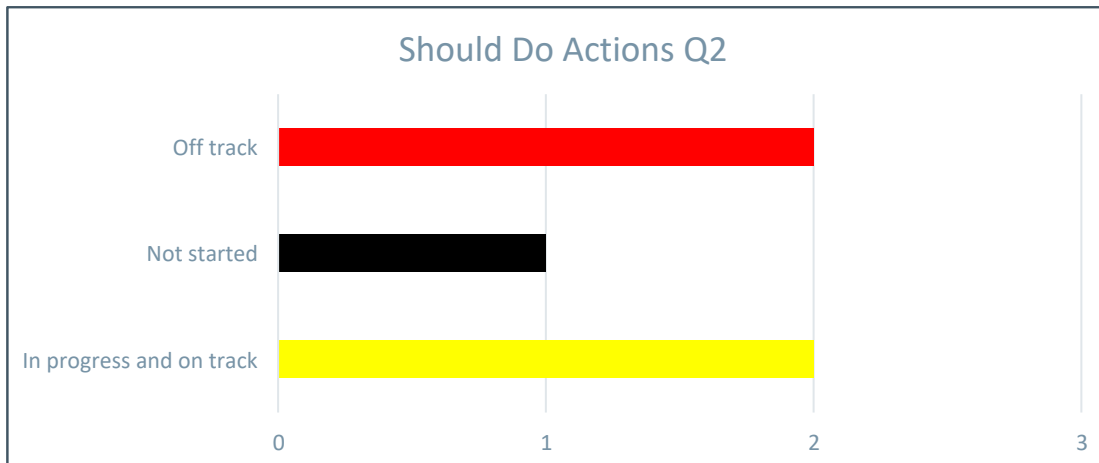
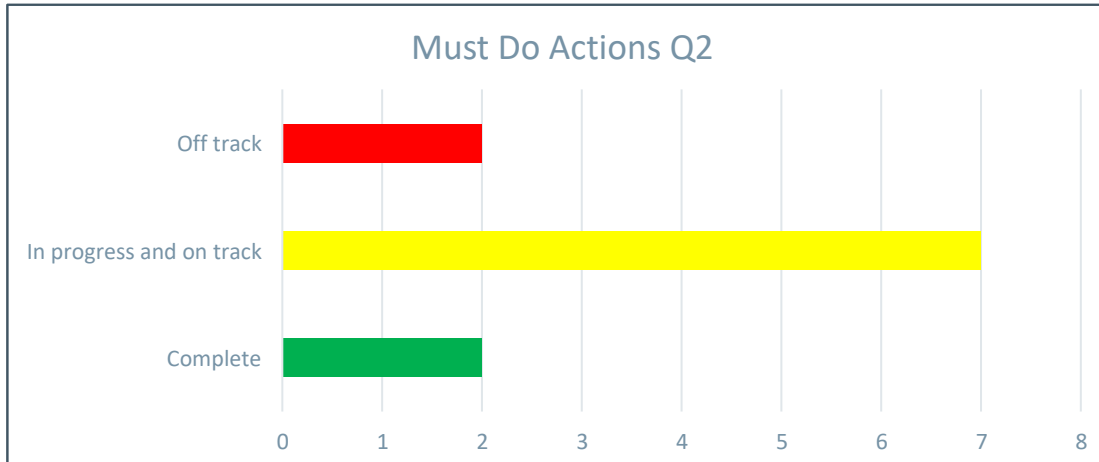
1. The trust should ensure that the environment at Ambleside ward is redecorated and comfortable for patients. (Regulation 15. Premises and Equipment)
2. The trust should consider investing in the outside spaces and gardens on all wards to enable patients to enjoy time outside of the ward. (Regulation 15. Premises and Equipment)
3. The trust should consider having photographs on patients' medicine administration records so that all staff can easily identify patients. (Regulation 12. Safe care and Treatment)
4. The trust should consider how they manage daily rotas to ensure staff get sufficient breaks each shift. (Regulation 18. Staffing)
5. The trust should ensure that all staff have an opportunity to know about learning from complaints and incidents and the trust are assured that staff understand these. (Regulation 17. Good Governance)

BCHFT Governance framework



Update on Actions. Q2 23-24

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Wolverhampton Health Scrutiny Panel

Maternity Service Report for The Royal Wolverhampton NHS Trust

Date of Report:	September 2023	Enc No:
Author:	Tracy Palmer	
Presenter/Exec Lead:	Tracy Palmer Director of Midwifery and Neonatal Services	

Action Required of the Board/Committee/Group

Decision	Approval	Discussion	Other
Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>

Recommendations:

The members are asked to note the contents of the report and receive it for approval.

Implications of the Paper:

Resource Implications:	Workforce: Funding Source: Business Case		
Report Data Caveats	This is a standard report using the previous month's data. It may be subject to cleansing and revision.		
Compliance and/or Lead Requirements	CQC	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Details
	NHSE	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Details: compliance with Ockenden 7 Immediate and Essential Actions (IEA's)
	Health & Safety	Yes <input type="checkbox"/> No <input type="checkbox"/>	Details:
	Legal	Yes <input type="checkbox"/> No <input type="checkbox"/>	Details:
	NHS Constitution	Yes <input type="checkbox"/> No <input type="checkbox"/>	Details:
	Other	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Details: Midwifery Workforce / Birth Rate Plus compliance business Case in progress.
CQC Domains	Safe: Effective: Caring: Responsive: Well-led:		

Summary of Key Issues using Assure, Advise and Alert

Assure

- The Royal Wolverhampton NHS Trust (RWT) demonstrated that all 10 safety standards set out in NHR Maternity Incentive Scheme (MIS) were achieved for year 4.
- The Maternity Service received their second Insights assessment conducted by the Local Maternity and Neonatal System (LMNS) and NHS England in June 2023. The inspection team confirmed full compliance with Ockenden 7 Immediate and Essential Actions (IEAs), with some positive high-level feedback at the end of the day.
- One to one care rates in established labour continue to be maintained at 100% for Q1.
- Following the CQC inspection in October 2022 there was a recommendation that RWT improved Midwifery staffing levels on The Maternity Triage Unit. Audits demonstrate improvements over a 3-month period.

Advise

- Following a recent recruitment event, offers made would see the Maternity service reach required establishment September/ October 2023 based on current projections. The offers made are predominantly to Student Midwives due to qualify in the Autumn.
- National Health Service Resolution Maternity Incentive Scheme: Clinical Negligence Scheme for Trusts (CNST) Year 5 has been received by Trusts. The Directorate has commenced the programme of work required to meet the 10 safety standards for year 5.
- The national Three-Year Single Delivery Plan for Maternity and Neonatal Services has been received by Trust and work is underway to benchmark and formulate a local plan.
- The report provides detail in terms of some of the work that is ongoing to tackle and improve health inequalities in the hard to reach, vulnerable and Black Asian and Ethnic Minority groups.

Alert

- The most recent national report for Perinatal Mortality Rates in Wolverhampton 2021 data is provided for information. The report concerns stillbirths and neonatal deaths among the 4,972 babies born within The Royal Wolverhampton NHS Trust (RWT) for 2021, this excludes births before 24 weeks gestational age and all terminations of pregnancy. It demonstrates a gradual improvement in extended perinatal Mortality rates in 2021.
- Smoking rates for pregnant women at booking demonstrate that Wolverhampton continues to remain higher than the national average rates of 10%. Funding has been secured from Wolverhampton public health to invest into strengthening smoking cessation services and healthy lifestyles for pregnant women to provide a limited service.
- The report provides an update on booking for maternity care by 10 weeks compliance of 62%, national average is 59%, the report details plans to improve compliance to 70% by December 2023.

Maternity Services Report

EXECUTIVE SUMMARY

The Royal Wolverhampton Midwifery Workforce Update

The report outlines the present position for Midwifery and Maternity Support Worker (MSW) deficit related to vacancy and Maternity leave.

The workforce trajectory for filling vacancy and appointing into maternity leave has been forecasted and indicates a positive picture, with newly appointed Midwives joining the service in September and October 2023. Therefore, the predicted workforce position indicates that all Midwifery vacancies will be filled by October 2023.

The report provides assurance that 1 to 1 care rates for women in established labour are being maintained at 100% in line with national recommendations.

Working towards improving Health Inequalities in Wolverhampton

- National reports (including MBBRACE 2022, Saving Babies Lives 2023) have highlighted the impact on women's health of the increasing inequalities in the UK, in terms of deprivation and disadvantage. Inequitable outcomes are associated with ethnicity and levels of deprivation.
- There remains a more than three-fold difference in maternal mortality rates among women from Black ethnic backgrounds, and an almost two-fold difference amongst women from Asian ethnic backgrounds, compared to White women.
- All the Saving Babies Lives Care Bundle version 3 elements have been reviewed to include actions to improve equity, including for babies from Black, Asian, and mixed ethnic groups and for those born to mothers living in the most deprived areas.
- Equity in maternity and neonatal care means that all mothers and babies have a fair and just opportunity to attain the best health outcomes.

Smoking rates for Pregnant women at booking in Wolverhampton.

A 16% smoking rate for pregnant women at booking demonstrate that Wolverhampton continues to remain higher than the national average rates of 10%. Funding has been secured from Wolverhampton Public Health to invest into strengthening smoking cessation services and healthy lifestyles for pregnant women and to provide a minimal service. These posts are currently being appointed into along with the newly appointed healthy living support workers.

MBRRACE-UK perinatal mortality report: 2021 births

The national Perinatal Mortality Report details numbers of stillbirths and neonatal deaths for Wolverhampton. There were 4,972 babies born within The Royal Wolverhampton NHS Trust (RWT) for 2021. The report gives the stabilised & adjusted Stillbirth and Neonatal Death Rates amongst these births. The data excludes births before 24 weeks gestational age and all terminations of pregnancy. The report demonstrates a gradual improvement in extended perinatal Mortality rates in 2021. Focused work continues to further improve perinatal mortality and morbidity as part of the national Transformation programme ambition for England.

NHSE: Insights Inspection for The Royal Wolverhampton NHS Trust Maternity Services.

The Royal Wolverhampton NHS Trust received their second insight inspection in June 2023. The purpose of the inspection was to assess progress against the 7 Immediate and Essential Actions (IEAs) recommended by Donna Ockenden following her independent review into the Maternity Services at Shrewsbury and Telford Hospitals 2020.

The inspection team were assured that all 7 IEAs had been achieved and that progress was being made to improve services further with several quality improvement projects. High level feedback at the end of the inspection was extremely positive for the Maternity Service.

Three-year Single Delivery Plan for Maternity and Neonatal Services

The plan summarises responsibilities for each part of the NHS including Trusts, Integrated Care Boards and Systems including Local Maternity and Neonatal Systems and Operational Delivery Networks, and NHS England. The RWT leadership team is working through the document to benchmark against the recommendations and also to formulate a local plan to deliver all aspects of the report. The report has recommendations for the Local maternity neonatal System also and we have as an LMNS agreed actions at system level.

NHSR Maternity Incentive Scheme CNST Year 5.

The Maternity Service achieved all 10 safety actions for MIS year 4; therefore, RWT are eligible to recover their element of contribution relating to the CNST maternity incentive funds.

NHS Resolution is now operating year five of the Clinical Negligence Scheme for Trusts (CNST) Maternity Incentive Scheme (MIS) to continue to support the delivery of safer maternity care. The Directorate has commenced delivery of the plan to work towards achieving all 10 safety actions for year 5. This is monitored within the directorate, and by the Local Maternity Neonatal System at regular touchpoints and progress updates will be provided to Wolverhampton Trust Board throughout the year.

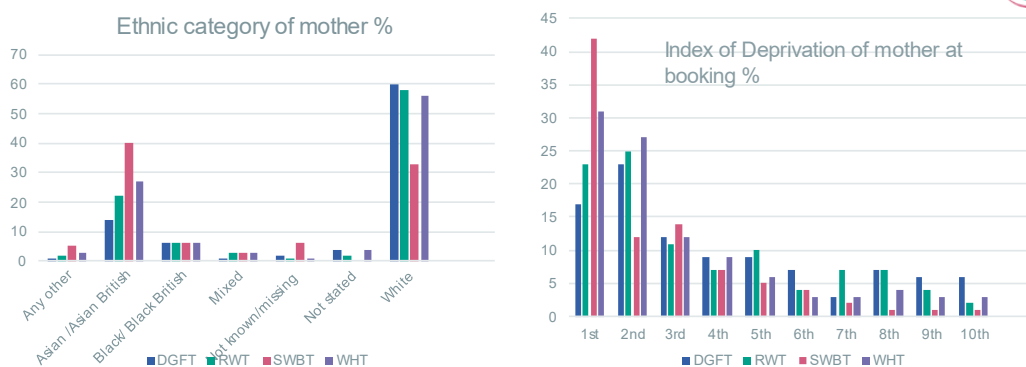
BACKGROUND INFORMATION

Working towards improving Health Inequalities in Wolverhampton

Wolverhampton has appointed a Equality Diversity and Inclusion (EDI) Lead Midwife. Working together with community Midwives, Specialist Midwives and the Maternity Voices Partnership (MVP) the EDI lead is working closely with Black Asian and Ethnic minority groups (BAME). The role focuses on reaching out to the more vulnerable and harder to reach families from BAME communities.

Graph 1: Indicates Ethnicity and Deprivation across the Black Country Local Maternity and Neonatal System (BCLMNS)

Ethnicity and deprivation



Black Country Local Maternity and Neonatal System part of the Healthier Futures Integrated Care System

4

The EDI lead is networking with EDI Midwives in the LMNS; her work includes:

The EDI Midwife takes part in a monthly TV recording on the Health Talk Show on Kanshi TV Sky channel 772, this is broadcast in 152 different countries reaching an international platform, the studio is based in Hill Top and popular amongst the local Punjabi communities in the vicinity of Wolverhampton, West Bromwich, Birmingham, Dudley, and Walsall. Punjabi is the most spoken of the top 5 non-English-speaking languages at RWT. A wide variety of topics have been covered and where possible the EDI midwife takes other health professionals with her to do joint recordings regarding public health messages and healthy lifestyles. This has included topics on Diabetes and prevalence in BAME communities, Haemoglobinopathy, Uptake of COVID vaccines, Diet in pregnancy, teenage pregnancies.

Presents to the Multi disciplinary teams the findings from significant reports and campaign groups that demonstrate the inequity within maternity systems for Black, Asian and Minority Ethnic families. (FiveXmore, Systemic racism, not broken (Birthrights) and Invisible: Maternity experiences of Muslim women from Radicalised Minority Communities.

A teaching session has been introduced onto the Midwifery Quality and Safety Maternity mandatory study day to present report findings and explore the impact of racism within the maternity system. This session has evaluated positively. The EDI lead is developing a cultural competency package for staff.

A steering group exists to monitor compliance with SBLCBv3 elements the EDI midwife is part of this group.

Works together with The Sahara Maternity Support Group. A focus group commissioned by NHSE to seek to engage with Black African and Black Caribbean communities in Wolverhampton. This group was set up in

partnership with Positive Participation who are a specialist Mental Health Service in Wolverhampton for Black, Asian, and Minority Ethnic groups.

The EDI Midwife works closely with the Refugee and Migrant Centre and has provided focused sessions explaining to families how maternity services work in Wolverhampton.

A named midwife has been assigned in Goldthorn, Connaught and The Britannia Hotels in Wolverhampton. The aim of having the named midwife is to ensure that refugee and migrant women have early access to EDI lead and community midwifery services.

The EDI Midwife is part of the Family Hubs workstream and works with Maternity and Neonatal Voices Partnership to ensure the experiences and voices of Black, Asian, and Minority Ethnic women are included in all maternity developments.

The EDI lead is working closely with fathers, grandmothers and Elders in families. For example, providing education packages on Female Genital Mutilation (FGM) and developing confidences within family networks to allow pregnant women to attend antenatal appointments without a chaperone.

The Royal Wolverhampton Midwifery Workforce Update

Table 1 indicates Vacancy rates for Midwifery and Maternity Support Worker (MSW) roles. The present position indicates that there is a deficit of 12.59 whole time equivalent (WTE) Midwifery posts and 0.73 WTE MSW posts within the Directorate. In May Maternity leave for Midwifery was 10.92 WTE and 2.03 MSW. Long term sickness within both workforces is minimum and is just over 4 WTE.

The highest deficit for Midwifery vacancy is within the Community Midwifery Service. The leadership team is monitoring activity and staffing daily following the introduction of a formal huddle each morning. This work continues throughout the day with the assistance of a duty manager who is contactable by all areas and has ability to move staff as required to ensure a safe service. This is monitored and shared with senior directorate and Trust team daily.

Table 1: Midwifery and Maternity Support Worker Workforce deficit.

Area	RM Vacancy	MSW Vacancy	RM Mat leave	MSW Mat Leave	RM LTS	MSW LTS
ANC/FAU	0	0.73	0.4	0.8	0	0
Delivery suite	0	0	6.44	0	0.96	0.64
Midwife Led Unit	2.63	0	0	0	0.96	0
Community	6.93	0	1.8	0	0	1
Maternity Wards D!0 D9	1.47	0	2.28	0.43	0	0
Sonography	1.56	0	0	0	0	0
Total	12.59	0.73	10.92	2.03	1.92	1.64

Forecasted turnover and maternity leave and recent position have been considered when appointing into Midwifery workforce vacancy.

The Birth Rate plus assessment based on birth rates and acuity demonstrated that the deficit for Midwifery workforce was 6.98 WTE split between clinical and leadership / specialist roles. This has been considered when recruitment into Midwifery posts have taken place.

One to One Care rates in Established Labour

The national ambition and recommendation in National Health Service Resolution Clinical Negligence scheme for Trust (CNST) Maternity Incentive Scheme (MIS) safety action 5: *Can you demonstrate an effective system*

of midwifery workforce planning to the required standard? Recommends that 100% of women receive 1:1 care in established labour.

Table 2

Activity	Previous Year Average	March 2023	April 2023	May 2023
1:1 Care rate in labour	99.5%	100%	100%	100%

One to One Care rates in established labour continue to be maintained at 100% for in Q1.

Maternity Triage Staffing Audit

Following the Care Quality Commission (CQC) inspection into Maternity Services at RWT in October 2022 an immediate recommendation was made to improve staffing levels on The Maternity Triage Unit (MTU). Audits are being completed to monitor staffing levels. The Audit data indicates an improvement over a 3 month period.

Table 3: Audit data staffing levels on MTU

Standard: 2 Midwives per shift	March 2023	April 2023	May 2023
2 Midwives working on MTU	90.2%	97.5%	99%

Local Maternity Dashboard – Booking and Birth rate data

Booking data

Maternity Activity	Tolerance			Feb	Mar	April	May	June
	Green	Amber	Red	23	23	22	23	23
Number of Bookings	<450	450-470	>471	483	517	461	539	464
Number of Mothers Delivered	<416	417-419	>420	369	427	380	445	452
% of deliveries on the MLU	15-17%	18-20%	<15 >20%	12.2%	14.3%	16.3%	16.6%	16.4

Maternity Services booking data indicated a rise through Q3 and into Q4. Booking rates are being monitored closely, including woman booking or transferring care from out of area and forecasts indicate that overall, the birth rate trajectory is on plan for just over 5000 births.

Booking by 10 weeks

NICE (NG202) recommends that an antenatal booking appointment is to take place by 10 weeks gestation. Later referrals > 9/40 an offer for booking should take place within 2 weeks.

The Royal Wolverhampton during Q1 and Q2 booked 62% of women by 10 weeks (national average is 59%) and 85% of women were booked by 12+6 /40 the latter figure meets the national screening Key performance indicator.

Booking women for maternity care by 10 weeks gestation ensures that complex social factors and comorbidities are recognised early and therefore risk assessed with an appropriate individualised and personalised care plan designed around the woman is in place.

Focused work is taking place by the maternity services to improve compliance for booking women by 10 weeks gestation with a target of 70% by December 2023.

Actions to improve compliance.

- The EDI lead midwife has engaged with hard-to-reach communities. She has undertaken work within the Romanian Orthodox Churches, the African Network, the Refugee and Migrant Centre and Punjabi television and has held discussions and educational sessions with women and their families about the importance of antenatal care and early booking. Some sessions were specifically targeted towards the father of the baby to discuss cultural norms within the United Kingdom, for example, the ability for women to attend appointments with a midwife alone because it is safe to do so in the UK, unlike their home country.
- Each migrant hotel has 1 named midwife – the midwife is known within the hotel to both the residents and staff and is easily accessible to pregnant women. This assists with booking process as the midwife are contacted directly when a pregnancy is diagnosed.
- Launch of self-referral – this has cut out all middle steps of the referral process. Women are booking at much earlier gestations and are being booked within 2 weeks. Self-referral was launched on 18th July. As of 31st August, 835 self-referrals have been received.
- Regular booking clinics improve compliance and give women the flexibility of attending at a weekend, outside of their work hours.
- Community Midwife team leaders have rotated into different teams which has given a ‘fresh eyes’ approach to the team. In doing so, team leaders have replicated good practice from previous teams and embedded them into their new team, for example, a booking tracker.
- Relaunch of Family Hubs, previously known as Strengthening Family Hubs, in August 2023 – 8 refurbishments have taken place and capacity for midwifery appointments has increased.

Future plans to monitor compliance.

- Review compliance monthly and directly compare the effect of launching the self-referral process.
- Liaise with Clevermed, the digital provider for our maternity and neonatal services, to request that booking data is more accessible, for example, a report highlighting the gestations at referral, the gestation at booking and the reason for late booking.
- Continue to use the Health Inequalities Dashboard to target services effectively.

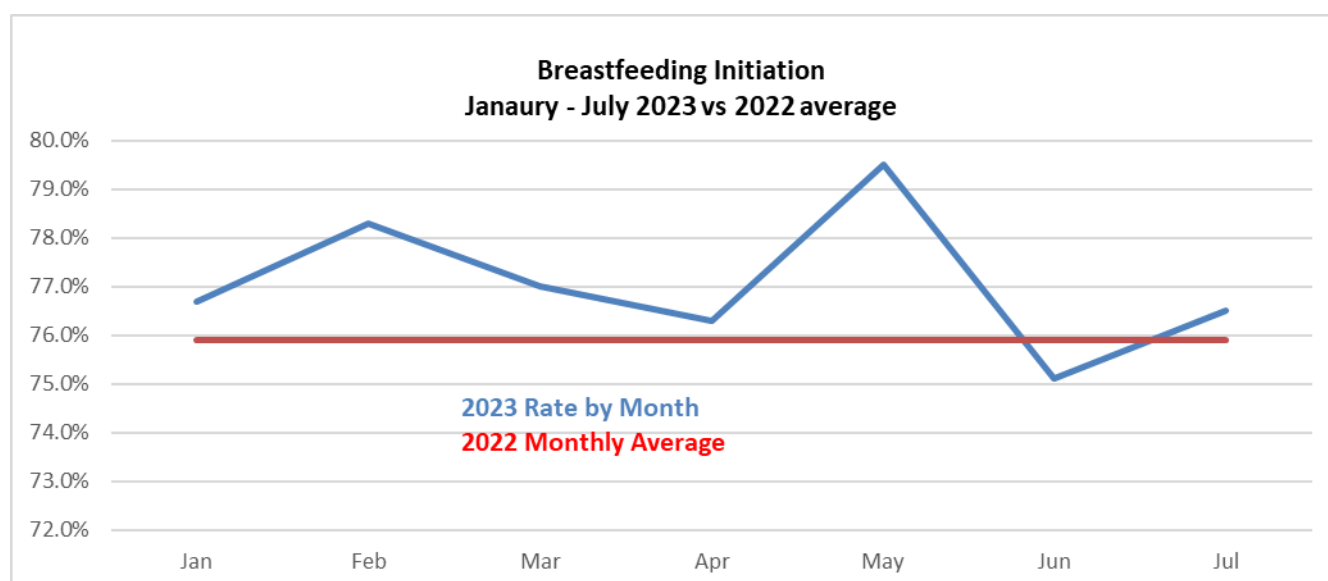
Infant Feeding

There is a recognition that Wolverhampton is one of many cities across the UK with health and economic inequalities and that Wolverhampton has one of the lowest breastfeeding initiation rates within communities that are socially deprived. Therefore, RWT maternity services has ensured that breastfeeding support groups are provided in areas with higher deprivation.

There is no evidence to suggest that in maternal health a suboptimal diet will have a detrimental impact on the production and quality of breastmilk. Breastfeeding women, like all new mums, need to eat well to meet their own energy and nutritional needs. Humans are very efficient, and body will absorb nutrients from food more efficiently and make milk to meet the needs of the baby. This ensures that enough breastmilk is still produced even if the mother’s diet is poor. However, recognising the benefits of Breast feeding from a nutritional advantage for the baby and financially for families with low-income targeted work has begun within the areas of Wolverhampton that are identified as socially deprived and with high health inequalities.

Two Healthy pregnancy advisors commenced post in June and have been networking with local groups, agencies and neighbouring Trusts and are currently carrying caseloads of pregnant women from social deprived areas, they will be introducing social support groups, advising on healthy lifestyles; diet smoking exercise and vitamin D, they will also be providing education in terms of early access to maternity services. Provide access to patient information in different languages and supporting Community Midwives and the EDI lead in tackling traditional practices in ethnic minority groups, for example bed sharing, baby swaddling and safer sleep.

Graph 3 indicates Breast feeding Initiation Rates in Wolverhampton at time of birth.



There has been a slight improvement in Breast Feeding Initiation rates for Q1 and Q2 in Wolverhampton, The newly appointed Healthy Pregnancy Team with support from the EDI and specialist Midwife in Public Health will contact 90% of all women living in areas with the highest levels of deprivation, who have a BMI >30 and or smoke or live with someone who smokes within 1 week of booking to offer behavioural change support by April 2024.

Smoking in Pregnancy

Smoking in pregnancy remains a key public health concern and is the single most modifiable risk factor for poor pregnancy and birth outcomes. 16% of pregnant women declare that they smoke at time of booking in Wolverhampton.

As part of the National Transformation Programme for Maternity Services NHSE has set the aspirational target to reduce smoking at time of birth to 6% by 2024-25. Nationally this has now been deemed as an unachievable trajectory and therefore more realistic timescales have been agreed that extends achieving the trajectory by a further 5 years.

National birth outcome data demonstrates that pregnant women who smoke are more likely to experience a premature birth, perinatal death and / or low birth weight babies.

Table 4 : Demonstrates that within Wolverhampton over a five-year period an average of 16.5% of pregnant women smoked at the time of booking
Smoking rates at booking over a 5-year period in Wolverhampton have remained consistent.

Table 4

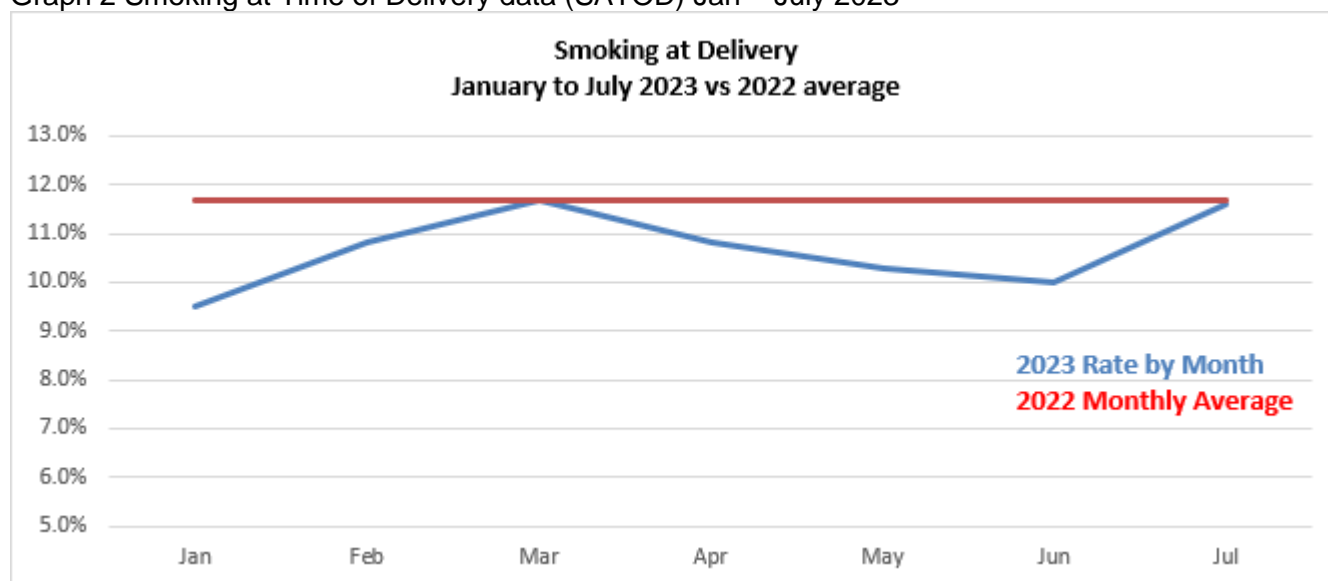
Indicators	2018 2019	2019 2020	2020 2021	2021 2022	YTD 2022-23
Total Bookings	4568	4624	4629	5113	1959
Smoking at Booking	737	715	796	803	357
% Smokers at Booking	16%	15%	17%	16%	18%
% CO Level Offered	85%	88%	13%	77%	89%
% Smokers Referral Offered & Accepted	30%	47%	48%	41%	41%
% Care Plan at Booking	99%	99%	98%	99%	98%

This data is monitored by the Black Country Tobacco Treatment Steering Group

The data demonstrates that referral to Smoking Cessation Referral Services has remained consistent over a four-year period (2019/23) since the Maternity Smoking Cessation Service was introduced permanently in 2019.

CO monitoring over the 5-year period has remained consistent with exception to year 2020/21 when CO monitoring was paused due to the COVID 19 Pandemic.

Graph 2 Smoking at Time of Delivery data (SATOD) Jan – July 2023



Smoking At Time Of delivery demonstrates a slight improvement from 2022 data, further targeted work is required to continue to improve rates in line with national trajectories.

Funding has been secured from Wolverhampton Public Health as part of the long-term plan for RWT to become a smoke free hospital/ home environment. This will include the provision of smoking cessation services to those pregnant women who smoke and book for birth at RWT.

The funding has enabled recruitment of 2 whole time equivalent (WTE) Band 4 Healthy Pregnancy Advisors and 2 WTE Band 4 Smoking Cessation support workers. These key new roles will provide advice and support to pregnant women who reside in Wolverhampton catchment areas with high deprivation. The aim is to reduce smoking at time of birth in line with national trajectories and promote healthier lifestyles to reduce obesity and improve outcomes for women and babies. This sits as part of the Trust wide vision for health inequalities and Smokefree Hospital aligning with the NHS Long Term Plan.

MBRRACE-UK perinatal mortality report: 2021 births

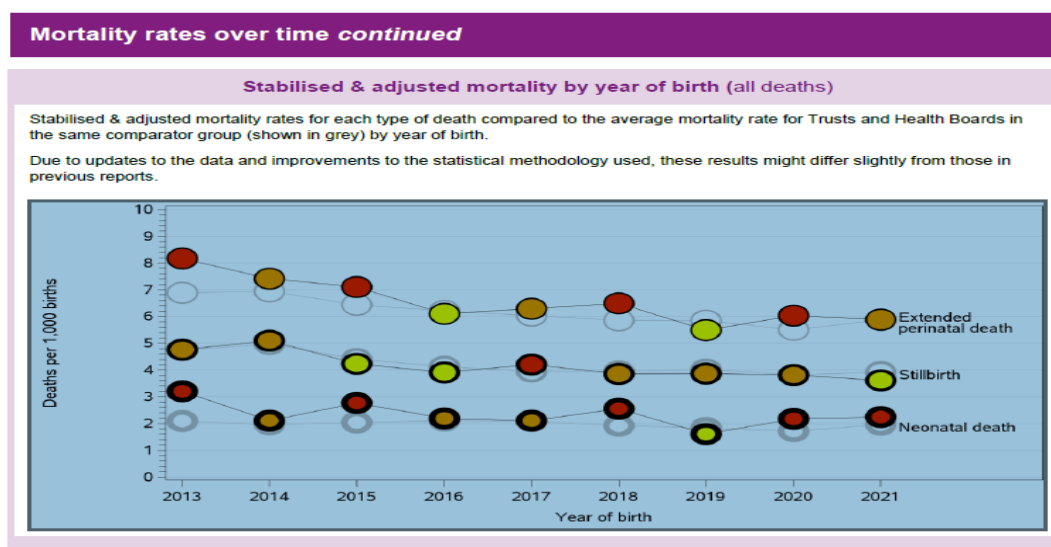
The report (Appendix 3) includes stillbirths and neonatal deaths among the 4,972 babies born within The Royal Wolverhampton NHS Trust (RWT) for 2021, this excludes births before 24 weeks gestational age and all terminations of pregnancy.

It includes details of the stillbirths and neonatal deaths for births that occurred at RWT in 2021, as well as background information on all births. Neonatal deaths are reported by place

of birth, irrespective of where the death occurred, as denominator data on the place of care is not available for all births.

Key Messages

1. RWT stabilised & adjusted stillbirth rate is 3.61 per 1,000 total births. This is lower than the average for similar Trusts & Health Boards.
2. RWT stabilised & adjusted neonatal mortality rate is 2.24 per 1,000 live births. This is more than 5% higher than the average for similar Trusts & Health Boards.
3. RWT stabilised & adjusted extended perinatal mortality rate is 5.89 per 1,000 total births. This is around the average for similar Trusts & Health Boards.



The graph demonstrates a gradual improvement in extended perinatal mortality rates for The Royal Wolverhampton NHS Trust.

Work continues to further improve mortality rates nationally and is led by NHSE's Maternity and neonatal Transformation Programme. Workstreams to deliver on the national ambition are being taken forward by the Black County Local Maternity and Neonatal System (BC LMNS).

Three-year Single Delivery Plan for Maternity and Neonatal Services

On March 30th, 2023, Three Year Single Delivery Plan (SDP) for Maternity and Neonatal Services was published by NHS England (NHSE).

The plan was developed for Trust Boards, Senior leaders, and frontline staff to focus on key themes that emerged from recent independent investigations into Maternity care at several Trusts within England.

NHSE has stated that the plan aims to deliver change rather than set out new policy. It seeks to help each part of the NHS to plan and prioritise actions by bringing together learning and action from a range of national reports and plans into this one document.

The plan summarises responsibilities for each part of the NHS including Trusts, Integrated Care Boards and Systems including Local Maternity and Neonatal Systems and Operational Delivery Networks, and NHS England

The four Key high-level themes are:

1. Listening to, and working with, women and families with compassion.

We want to ensure care is personalised and that service users have informed choice. Voices of all women including those from diverse backgrounds must be heard, and services should work closely with all service users to collaboratively plan, design, and improve care.

2. Growing, retaining, and supporting our workforce with the resources and teams they need to excel.

We want to ensure there are sufficient highly skilled staff across the whole maternity and neonatal team whilst combatting workforce inequalities. Staff should feel valued, with plentiful opportunity for skills and career development to facilitate a lifelong career in the NHS.

3. Developing and sustaining a culture of safety, learning, and support.

There should be a positive safety culture in every maternity and neonatal service, where everyone takes responsibility for safer care and learning, and leaders understand, and act based on how it feels for their teams to work at their organisation.

4. Standards and structures that underpin safer, more personalised, and more equitable care.

Best practice should be consistently implemented across the country, with timely, accurate data available to support learning and early identification of emerging safety issues. Women can access their records and interact with their plans and information to support informed decision-making.

An Improvement template has been provided from NHSE with the key recommendations for Trusts with timescales for to implementation.

Monitoring of progress with the key recommendations will be undertaken by Local Maternity and Neonatal Systems and Integrated Care Boards.

The Directorate is working through the document to benchmark where the service is presently. Action plans will be developed to ensure that the Directorate remains focused on the recommendations and ambition from the three-year Single Delivery Plan. The Single Delivery Plan will also align with the Directorates Perinatal Strategy.

Maternity Insights Inspection.

The purpose of these inspections is to provide an assurance against the 7 IEA's following Donna Ockenden's initial report published in December 2020. The initial report revealed the emerging findings and recommendations from the independent review of Maternity services at the Shrewsbury and Telford Hospital NHS Trust.

1. Enhanced Safety
2. Listening to Women & Families
3. Staff Training and Working Together
4. Managing Complex Pregnancy
5. Risk Assessment Throughout Pregnancy
6. Monitoring Fetal Well-Being
7. Informed Consent

A separate recommendation for workforce planning and guidelines was also included.

Maternity Services in England were given the recommendations from the report which were presented as 7 IEA's. Maternity services were tasked with delivering on full implementation of all 7 IEA's.

Maternity Services in England were given the recommendations from the report which were presented as 7 IEA's. Maternity services were tasked with delivering on full implementation of all 7 IEA's.

The Maternity service received their second Insights assessment conducted by the Local Maternity and Neonatal System (LMNS) and NHS England in June 2023. The inspection team confirmed full compliance with Ockenden 7 IEA's. Positive high-level feedback was given at the end of the day from the inspection team regarding The Maternity Services at RWT. The Trust is still waiting for the final report.

NHSR Maternity Incentive Scheme CNST Year 5.

NHS Resolution is operating year five of the Clinical Negligence Scheme for Trusts (CNST) Maternity Incentive Scheme (MIS) to continue to support the delivery of safer maternity care (Appendix 1).

The Directorate have commenced work with the relevant workstreams to work towards full compliance for each safety action for year 5.

Maternity Incentive Scheme CNST Year 4

The Maternity Service achieved all 10 safety actions for MIS year 4; therefore, RWT have received their element of contribution relating to the CNST maternity incentive funds.

Within the Midlands region there are 21 Trusts providing Maternity Services; 8 out of 21 Trusts achieved full compliance with all 10 safety actions for year 4 Maternity Incentive Scheme. Therefore, in addition to the incentive RWT will also receive a share of the unallocated funds from Trusts that were not fully compliant with all 10 safety standards.

RECOMMENDATIONS

That members to note the Midwifery Services Report.

Please refer to the following appendices.

Appendix 1: NHSR Maternity Incentive Scheme CNST Year 5 document.

[MIS-year-5-FINAL-31-5-23.pdf \(resolution.nhs.uk\)](#)

Appendix 2: [MBRRACE-UK Maternal MAIN Report 2022 UPDATE.pdf \(ox.ac.uk\)](#)

Appendix 3: Perinatal Mortality Report for the Royal Wolverhampton 2021.

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The Royal Wolverhampton NHS Trust

MBRRACE-UK perinatal mortality report: 2021 births

This report concerns stillbirths and neonatal deaths among the 4,972 babies born within your Trust in 2021, EXCLUDING births before 24 weeks gestational age and all terminations of pregnancy.

It includes details of the stillbirths and neonatal deaths for births that occurred in your Trust in 2021, as well as background information on all births. Neonatal deaths are reported by place of birth, irrespective of where the death occurred, as denominator data on the place of care is not available for all births.

Key messages

All deaths

1. Your stabilised & adjusted stillbirth rate is **3.61 per 1,000 total births**. This is lower than the average for similar Trusts & Health Boards.
2. Your stabilised & adjusted neonatal mortality rate is **2.24 per 1,000 live births**. This is more than 5% higher than the average for similar Trusts & Health Boards.
3. Your stabilised & adjusted extended perinatal mortality rate is **5.89 per 1,000 total births**. This is around the average for similar Trusts & Health Boards.

Excluding deaths due to congenital anomalies

1. Your stabilised & adjusted stillbirth rate excluding deaths due to congenital anomalies is **3.22 per 1,000 total births**. This is lower than the average for similar Trusts & Health Boards.
2. Your stabilised & adjusted neonatal mortality rate excluding deaths due to congenital anomalies is **1.76 per 1,000 live births**. This is more than 5% higher than the average for similar Trusts & Health Boards.
3. Your stabilised & adjusted extended perinatal mortality rate excluding deaths due to congenital anomalies is **5.02 per 1,000 total births**. This is around the average for similar Trusts & Health Boards.

Full details of your perinatal mortality rates can be found on page 2.

Recommended actions

As the neonatal mortality rate has been highlighted above, it is important to: a) review the data that was entered locally about your Trust to ensure it is accurate and complete; and b) ensure that a review using the Perinatal Mortality Review Tool (PMRT) has been carried out for all the deaths in this report to assess care, identify and implement service improvements to prevent future similar deaths.

Definitions

<i>Late fetal loss:</i>	A baby delivered between 22 ⁺⁰ and 23 ⁺⁶ weeks gestational age showing no signs of life, irrespective of when the death occurred.
<i>Stillbirth:</i>	A baby delivered at or after 24 ⁺⁰ weeks gestational age showing no signs of life, irrespective of when the death occurred.
<i>Neonatal death:</i>	A live born baby who died up to 28 completed days after birth.
<i>Extended perinatal death:</i>	A stillbirth or neonatal death.

1. Your perinatal mortality rates

The mortality rates are reported for babies born within your Trust at 24 weeks gestational age or later, excluding terminations of pregnancy. The **crude mortality rate** is the number of deaths for every 1,000 births (or 1,000 live births for neonatal mortality) and is a snapshot of mortality for your organisation for births in 2021. However, this can be misleading as a measure of the underlying (or long-term) mortality rate due to chance variation and differences between Trusts and Health Boards in the proportion of high risk pregnancies. The **stabilised & adjusted mortality rate** provides a more reliable estimate of the underlying mortality rate, accounting for mother's age, socio-economic deprivation, baby's sex and ethnicity, multiplicity, and (for neonatal deaths only) gestational age at birth. While it is not possible to adjust for all potential risk factors, these measures do provide an important insight into the perinatal mortality for births within your Trust in 2021.

To account for the wide variation in case-mix, all Trusts and Health Boards have been classified hierarchically into five comparator groups: (i) Level 3 Neonatal Intensive Care Unit (NICU) and surgical provision; (ii) Level 3 NICU; (iii) 4,000 or more births per annum at 22 weeks or later; (iv) 2,000-3,999 births per annum at 22 weeks or later; (v) under 2,000 births per annum at 22 weeks or later.

Your Trust has been included in the comparator group with a Level 3 NICU.

Perinatal mortality (all deaths)

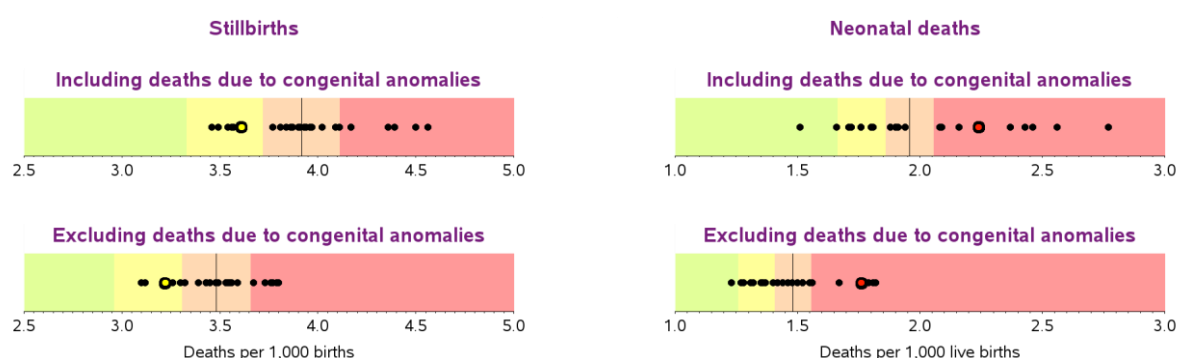
Type of death	Number	Crude rate	Stabilised & adjusted rate (95% C.I.)	Comparison to the average for similar Trusts & Health Boards
Stillbirth	16	3.22	3.61 (2.71 to 4.64)	● More than 5% and up to 15% lower
Neonatal	16	3.23	2.24 (1.55 to 3.19)	● More than 5% higher
Extended perinatal	32	6.44	5.89 (4.92 to 7.53)	● Up to 5% higher or up to 5% lower

Perinatal mortality (excluding deaths due to congenital anomalies)

Type of death	Number	Crude rate	Stabilised & adjusted rate (95% C.I.)	Comparison to the average for similar Trusts & Health Boards
Stillbirth	12	2.42	3.22 (2.49 to 4.10)	● More than 5% and up to 15% lower
Neonatal	15	3.03	1.76 (1.14 to 2.68)	● More than 5% higher
Extended perinatal	27	5.44	5.02 (4.22 to 6.51)	● Up to 5% higher or up to 5% lower

Comparisons with similar Trusts, Health Boards and the UK average

Your estimated stabilised & adjusted mortality rate for each type of death has been compared with the average mortality rate for Trusts and Health Boards in the same comparator group and is shown below as a circle:



- more than 15% lower than the average for the group
- more than 5% and up to 15% lower than the average for the group
- up to 5% higher or up to 5% lower than the average for the group
- more than 5% higher than the average for the group

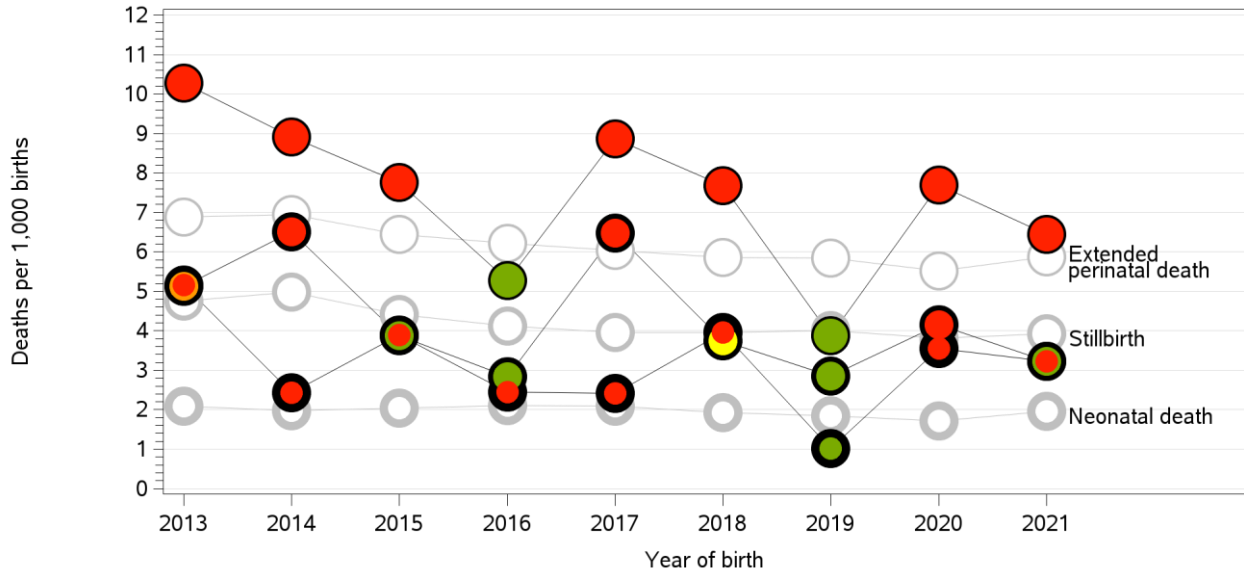
Trusts and Health Boards whose mortality rates are marked ● or ● should carry out an initial investigation of their data quality and possible contributing local factors that might explain the high rate. Irrespective of where they fall in the spectrum of national performance all Trusts and Health Boards should use the national PMRT to review all their stillbirths and neonatal deaths.

2. Mortality rates over time

Crude mortality by year of birth (all deaths)

Crude mortality rates for each type of death compared to the average mortality rate for Trusts and Health Boards in the same comparator group (shown in grey) by year of birth.

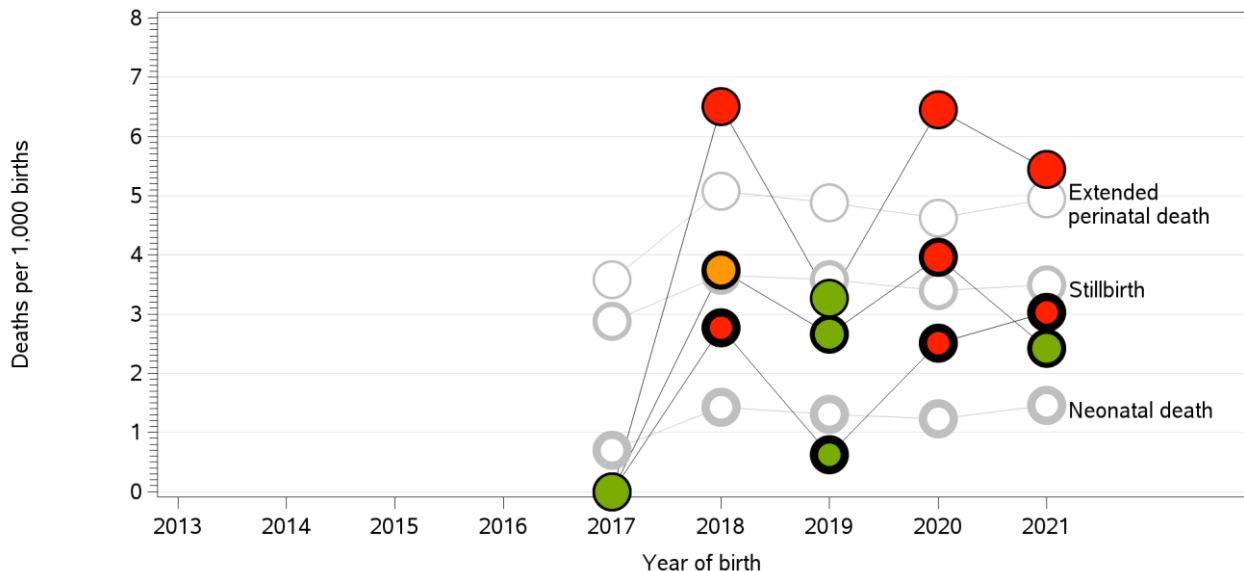
Due to updates to the data, these results might differ slightly from those in previous reports.



Crude mortality by year of birth (excluding deaths due to congenital anomalies)

Crude mortality rates for each type of death, excluding deaths due to congenital anomalies, compared to the average mortality rate for Trusts and Health Boards in the same comparator group (shown in grey) by year of birth. Rates are reported from 2017 onwards.

Due to updates to the data, these results might differ slightly from those in previous reports.

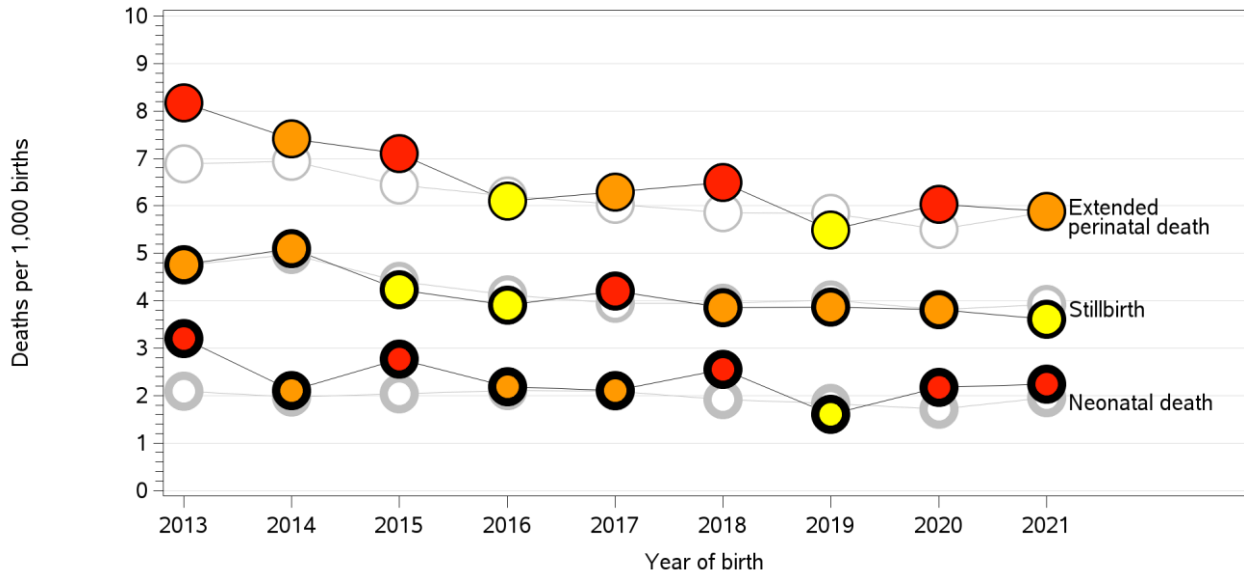


Mortality rates over time *continued*

Stabilised & adjusted mortality by year of birth (all deaths)

Stabilised & adjusted mortality rates for each type of death compared to the average mortality rate for Trusts and Health Boards in the same comparator group (shown in grey) by year of birth.

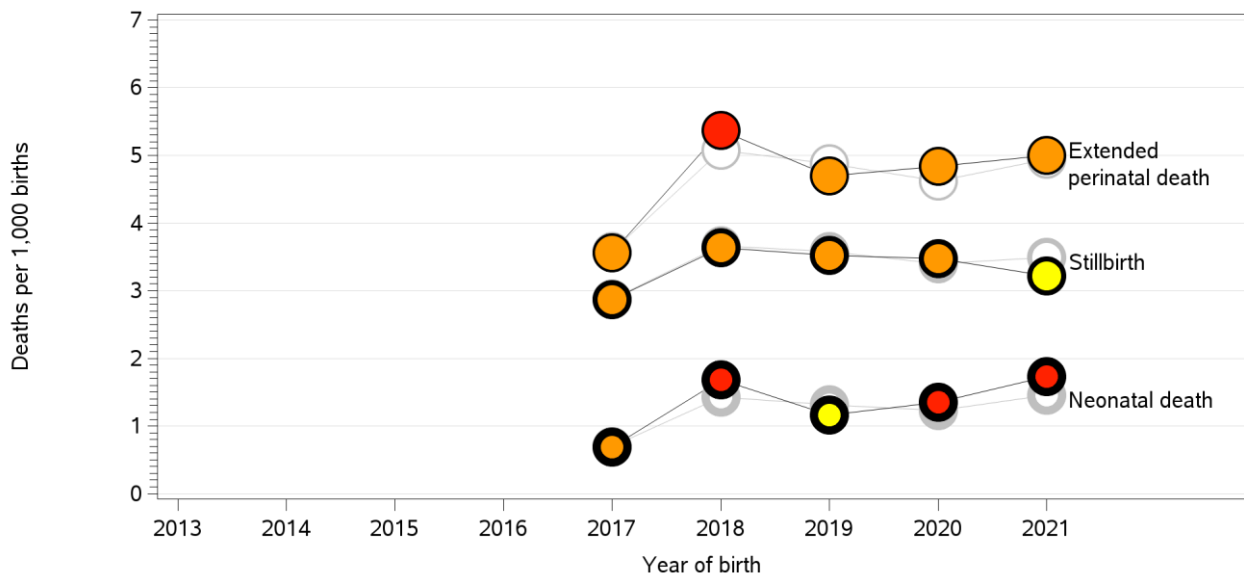
Due to updates to the data and improvements to the statistical methodology used, these results might differ slightly from those in previous reports.



Stabilised & adjusted mortality by year of birth (excluding deaths due to congenital anomalies)

Stabilised & adjusted mortality rates for each type of death, excluding deaths due to congenital anomalies, compared to the average mortality rate for Trusts and Health Boards in the same comparator group (shown in grey) by year of birth. Rates are reported from 2017 onwards.

Due to updates to the data and improvements to the statistical methodology used, these results might differ slightly from those in previous reports.



3. Your perinatal deaths

Deaths of babies born within your Trust

The crude mortality rates reported here are for babies born within your Trust, excluding births before 24 weeks gestational age and all terminations of pregnancy, together with the equivalent UK-wide rates.

These rates are subject to random variation, especially when the number of deaths is small. Stabilised & adjusted mortality rates are presented on page 2 which provide more reliable estimates of the underlying (long-term) mortality rates for your Trust.

Rates per 1,000 births		Stillbirths				Neonatal Deaths				Extended perinatal deaths			
		Antepartum		Intrapartum		Unknown		Early				Late	
Your Trust	Rate (N)	2.6	(13)	0.6	(3)	0.0	(0)	1.6	(8)	1.6	(8)	6.4	(32)
UK-wide	Rate	3.1		0.2		0.2		1.1		0.5		5.2	

The rates of extended perinatal death for your Trust, by gestational age at delivery, are shown below. Equivalent UK-wide rates are also shown for comparison.

Rates per 1,000 births		Extended perinatal deaths by gestational age									
		24 ⁺⁰ – 27 ⁺⁶		28 ⁺⁰ – 31 ⁺⁶		32 ⁺⁰ – 36 ⁺⁶		37 ⁺⁰ – 41 ⁺⁶		≥ 42 ⁺⁰	
Your Trust	Rate (N)	304.3	(14)	90.9	(5)	23.2	(8)	1.2	(5)	0.0	(0)
UK-wide	Rate	338.9		113.2		21.7		1.9		1.9	

Cause of death

The tables below describe the cause of death reported to MBRRACE-UK for stillbirths which occurred in your Trust and for neonatal deaths of babies who were born in your Trust. They are listed by the primary categories of the 'Cause Of Death & Associated Conditions' (CODAC) system of death classification.

Congenital anomaly is reported as the cause of death for all deaths where a congenital anomaly is coded as either the primary cause of death or an associated condition.

In order to ensure accurate, consistent reporting using the CODAC system of death classification, Trust and Health Board Perinatal Review groups should focus on the quality of cause of death coding.

			Infection		Neonatal		Intrapartum		Congenital anomaly		Fetal	
Stillbirths	Your Trust	% (N)	6.3%	(1)	0.0%	(0)	6.3%	(1)	25.0%	(4)	6.3%	(1)
	UK-wide	%	4.5%		1.7%		1.3%		9.3%		4.0%	
Neonatal Deaths	Your Trust	% (N)	0.0%	(0)	68.8%	(11)	6.3%	(1)	6.3%	(1)	6.3%	(1)
	UK-wide	%	7.7%		44.3%		2.2%		32.6%		3.8%	

			Cord		Placental		Maternal		Unknown		Missing	
Stillbirths	Your Trust	% (N)	6.3%	(1)	37.5%	(6)	0.0%	(0)	12.5%	(2)	0.0%	(0)
	UK-wide	%	4.7%		33.2%		3.9%		33.3%		4.2%	
Neonatal Deaths	Your Trust	% (N)	0.0%	(0)	6.3%	(1)	0.0%	(0)	6.3%	(1)	0.0%	(0)
	UK-wide	%	0.1%		3.0%		0.3%		4.5%		1.5%	

Your perinatal deaths *continued*

Place of neonatal death by gestational age

In the table below, information is shown that differentiates between the neonatal deaths of live born babies who were born and subsequently died within your Trust and those who were born within your Trust but died elsewhere. The percentage and number of babies in each group is shown by gestational age at birth.

Place of Death		Gestational group				
		24 ⁺⁰ – 27 ⁺⁶	28 ⁺⁰ – 31 ⁺⁶	32 ⁺⁰ – 36 ⁺⁶	37 ⁺⁰ – 41 ⁺⁶	≥ 42 ⁺⁰
Within your Trust	% (N)	80% (8)	100% (2)	100% (2)	100% (2)	(0)
Outside your Trust	% (N)	20% (2)	0% (0)	0% (0)	0% (0)	(0)

Post-mortem

The percentage of stillbirths and neonatal deaths for which parents were offered a post-mortem examination is given below, differentiating between those who were born and subsequently died within your Trust and those who were born within your Trust but died elsewhere.

For births within your Trust, a post-mortem was offered for 100% of stillbirths and 100% of neonatal deaths, compared with 98% and 92% UK-wide.

Place of Death		Post-mortem offered (as % of deaths)			
		Stillbirths		Neonatal Deaths	
Within your Trust	% (n/N)	100%	(16/16)	100%	(14/14)
Outside your Trust	% (n/N)			100%	(2/2)
UK-wide	%	98%		92%	

The percentage of post-mortems offered or for which consent was obtained and where the cause of death was reported to MBRRACE-UK as Unknown is shown below. You should ensure that the cause of death on the MBRRACE-UK data reporting system is updated once the post-mortem results are known.

		Post-mortem			
		Offered		Consent obtained	
Unknown cause of death	% (N)	100%	(4/4)	100%	(4/4)

Babies born at 22 to 23 weeks gestation

It is vital for MBRRACE-UK to be able to present perinatal mortality rates from 22 weeks gestational age onwards, as recommended by the World Health Organization, in order that UK rates can be compared internationally. As there is no statutory registration of late fetal losses at 22 and 23 weeks gestational age, it is vital that your Trust ensures that there is a rigorous system for reporting these deaths to MBRRACE-UK.

The number of late fetal losses at 22 and 23 weeks gestational age reported by your Trust for babies born in 2021 was 3. Please continue to review this information in order to ensure that all late fetal losses are reported to MBRRACE-UK.

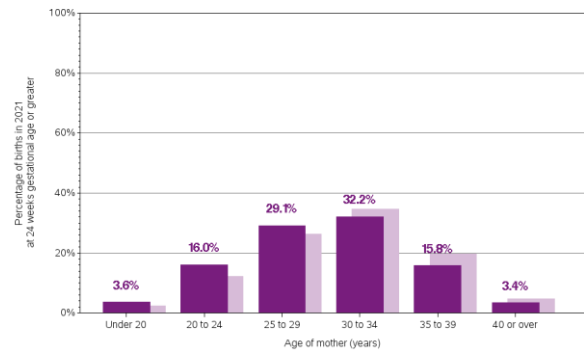
		Deaths at 22 ⁺⁰ to 23 ⁺⁶ weeks gestational age	
		Late fetal losses	Neonatal deaths
Your Trust	N	3	3

4. Your births

Age of mother

The proportion of mothers under 25 years of age was considerably higher than that of the UK as a whole: 19.6% versus 14.5%.

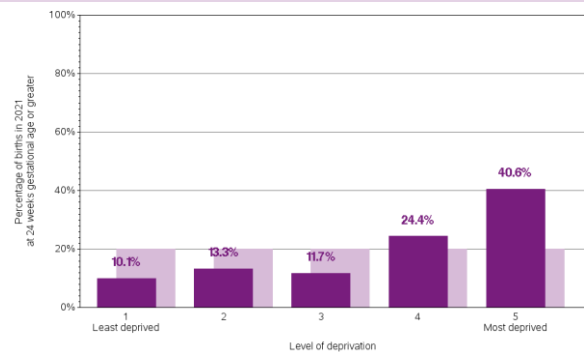
In the national MBRRACE-UK Perinatal Mortality Surveillance Report it was shown that mortality rates were higher for babies born to mothers under 25 and over 34 years of age compared to mothers aged from 25 to 34 years old.



Socio-economic deprivation

This graph shows the distribution of births by level of deprivation, based on the postcode of the mother's residence and using the [Children in Low-Income Families Local Measure](#).

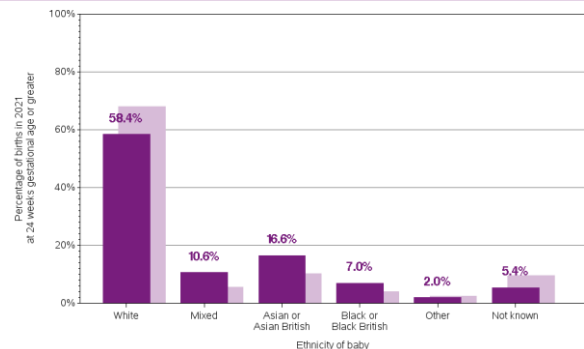
The mothers giving birth in your Trust were considerably more likely to live in areas of high deprivation than those giving birth across the UK as a whole.



Ethnicity of baby

The proportion of babies of non-White ethnicity was considerably higher than that of the UK as a whole: 36.2% versus 22.3%.

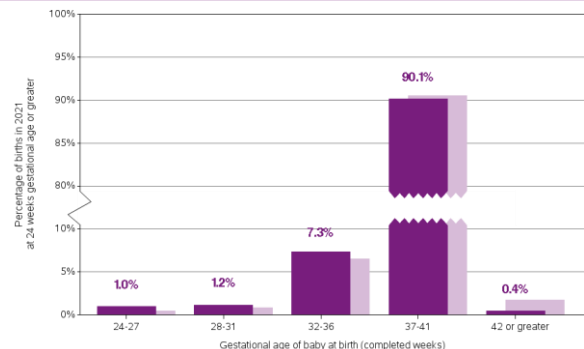
However, for 5.4% of your births the baby's ethnicity was reported as not known. This information is dependent on the accurate coding of babies' ethnicity within the routine reporting of all births.



Gestational age

In your Trust, 46 babies (1.0%) were born at 24 to 27 weeks gestational age, higher than the 0.4% seen in the UK as a whole. However, the percentage of babies born at 28 to 31 weeks was similar to the national average: 1.2% versus 0.8%.

In addition, 20 babies (0.4%) were born post-term (42 weeks or greater), a lower percentage than the UK average of 1.8%.

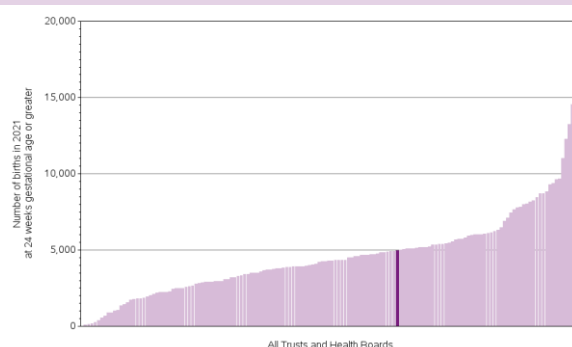


Your births *continued*

Number of births

There were 4,972 births in your Trust at 24 weeks gestational age or later, excluding terminations of pregnancy.

The purple line in the graph opposite shows that the number of births in your Trust puts you in the middle third of all Trusts and Health Boards in the UK.



Percentage of births taking place in your Trust by commissioning organisation

The table below provides the percentage and number of births in your Trust at 24 weeks gestational age or later from each of the commissioning organisations for which over 1% of their births at 24 weeks gestational age or later occurred within your Trust. These organisations are Sub-Integrated Care Boards (Sub-ICBs) in England, Health Boards in Scotland and Wales and Local Commissioning Groups (LCGs) in Northern Ireland.

In total, the births from these organisations accounted for 99.5% of your births at 24 weeks gestational age or later in 2021.

Commissioning organisation	% Births (N)	Commissioning organisation	% Births (N)
1. NHS Staffordshire and Stoke-on-Trent ICB - 04Y	55.7% (755)	2. NHS Black Country ICB - D2P2L	25.2% (3626)
3. NHS Staffordshire and Stoke-on-Trent ICB - 05Q	16.3% (350)	4. NHS Staffordshire and Stoke-on-Trent ICB - 05V	11.5% (162)
5. NHS Shropshire, Telford and Wrekin ICB - M2LOM	1.2% (53)		

5. Data reporting

Completeness of key data items for DEATHS AT YOUR TRUST

It is vital that complete, accurate data is reported to MBRRACE-UK. For births in 2021, we received over 99% of information on key data items for the deaths which occurred within your Trust.

The tables below provide details of completeness for key items in the data collection form. While the rest of this report concerns babies born within your Trust, these tables show the overall completeness of data for **deaths at your Trust no matter where they were born**. The percentage of data reported is given for each item, together with a coloured diamond denoting the level of completeness:

- ◆ less than 70.0% complete
- ◆ 70.0% to 84.9% complete
- ◆ 85.0% to 96.9% complete
- ◆ 97.0% to 99.9% complete
- ◆ 100% complete

These data items have been assessed as they are all readily available and essential to the accurate reporting of extended perinatal mortality for your Trust. The reporting from your Trust was almost complete. Achieving 100% data collection may well require collaboration with receiving and referring units.

Mother's details		Completeness	
Name		100.0%	◆
	UK-wide	100.0%	
Postcode of residence		100.0%	◆
	UK-wide	99.9%	
Ethnicity		100.0%	◆
	UK-wide	96.3%	
Age		100.0%	◆
	UK-wide	100.0%	

Birth		Completeness	
Type of onset of labour		97.1%	◆
	UK-wide	99.0%	
Actual place of birth		100.0%	◆
	UK-wide	99.4%	
Date and time of birth		100.0%	◆
	UK-wide	98.6%	
Final mode of birth		100.0%	◆
	UK-wide	99.5%	

Booking and antenatal care [†]		Completeness	
Smoking		100.0%	◆
	UK-wide	97.5%	
Body mass index		100.0%	◆
	UK-wide	100.0%	
Intended type of care at booking		97.1%	◆
	UK-wide	96.2%	
Estimated date of delivery		100.0%	◆
	UK-wide	97.0%	

Baby's outcome		Completeness	
Date death confirmed [‡]		100.0%	◆
	UK-wide	100.0%	
Whether alive at onset of care [‡]		100.0%	◆
	UK-wide	95.1%	
Whether admitted to NNU [§]		100.0%	◆
	UK-wide	99.9%	
Main cause of death		100.0%	◆
	UK-wide	96.7%	

Baby's characteristics		Completeness	
Birth weight		100.0%	◆
	UK-wide	98.6%	
Gestational age at birth		100.0%	◆
	UK-wide	98.9%	

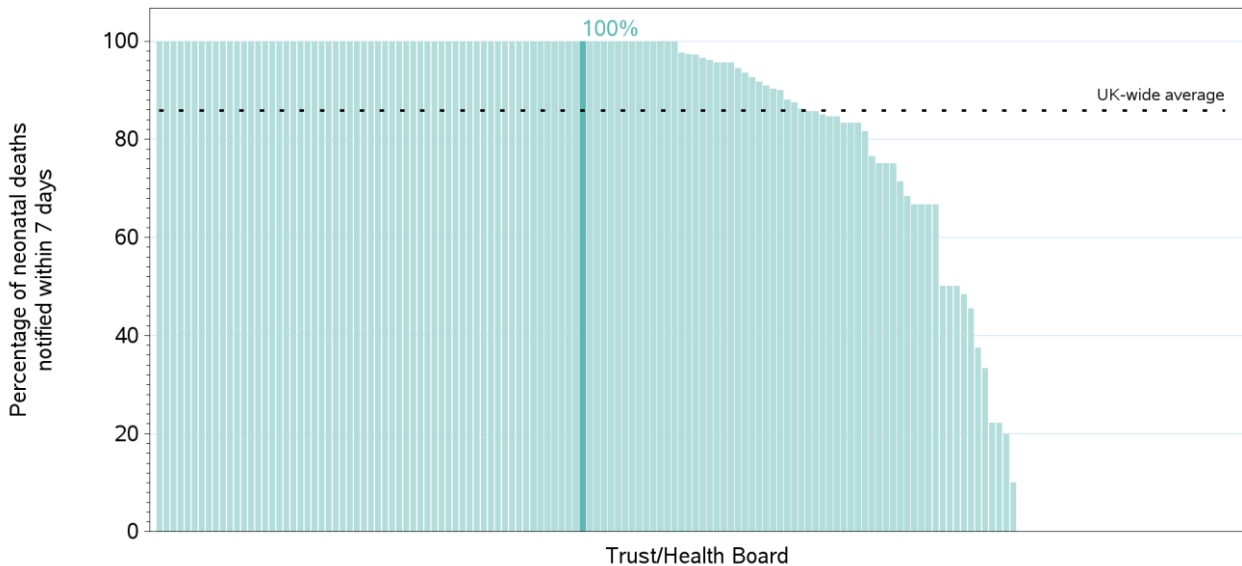
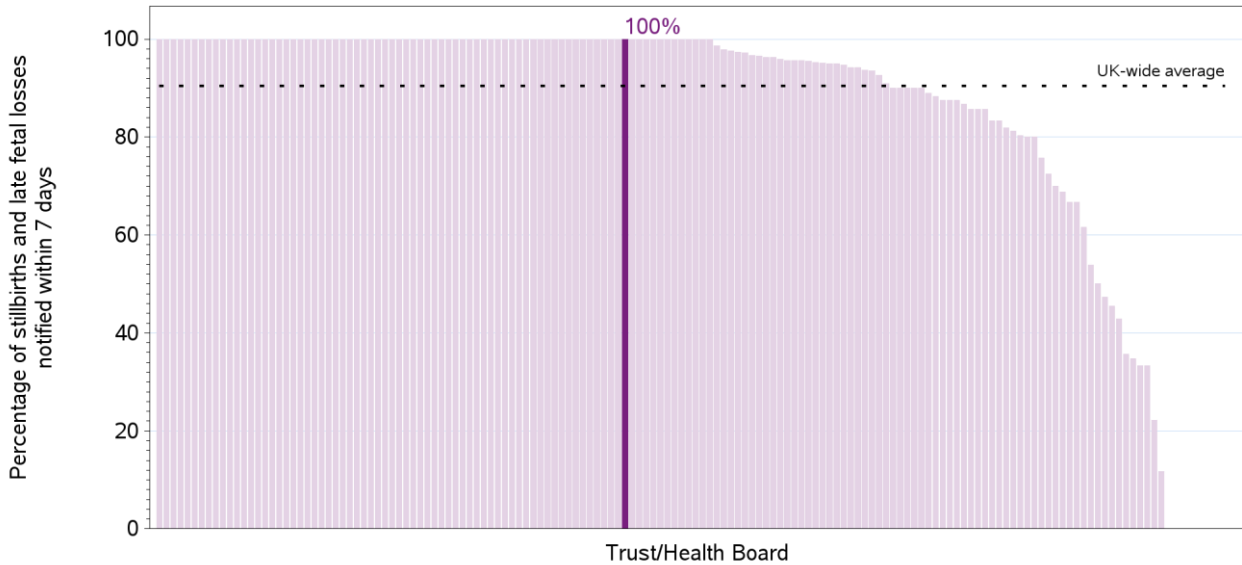
[†] excluding mothers reported as never booked; [‡] this data item is collected for stillbirths only; [§] this data item is collected for neonatal deaths only.

Percentage of deaths notified by your Trust within 7 days

The MBRRACE-UK timeliness benchmarks for the notification of deaths and completion of surveillance data are:

- 1) All deaths should be **notified** to MBRRACE-UK within 7 days of the death occurring. The full data does not have to be complete at this point.
- 2) Trusts and Health Boards should aim to **complete** data entry for each death within 90 days of the death occurring.

The graphs below show the percentage of stillbirths & late fetal losses and neonatal deaths notified by your Trust within the 7-day benchmark period.



About this report

MBRRACE-UK

This report presents one element of the work of MBRRACE-UK, a collaboration led from the National Perinatal Epidemiology Unit at the University of Oxford with members from the University of Leicester (who lead the perinatal aspects of the work), University of Birmingham, Bradford Institute for Health Research, The Newcastle upon Tyne Hospitals NHS Foundation Trust and Sands (Stillbirth and neonatal death charity).

MBRRACE-UK is commissioned by the Healthcare Quality Improvement Partnership on behalf of NHS England, NHS Wales, the Scottish Government Health and Social Care Directorate, the Northern Ireland Department of Health, Social Services and Public Safety, the States of Guernsey, the States of Jersey, and the Isle of Man Government.

Data sources

Deaths were reported to MBRRACE-UK by the Trust or Health Board where the death occurred. The information about births was obtained from routine sources – the Office for National Statistics, Personal Demographics Service, National Records of Scotland, Public Health Scotland, Northern Ireland Maternal and Child Health, States of Guernsey Health and Social Services Department, and States of Jersey Health Intelligence Unit. Home births are reported where the birth was registered via a Trust or Health Board. Births and deaths are attributed according to the configuration of Trusts and Health Boards on 1 September 2022.

Deaths from all causes except termination of pregnancy are reported, including those resulting from congenital anomalies. The information in this report may not match other local or national reported rates as births before 24 weeks gestational age have been excluded from most tables due to differences in reporting by Trusts and Health Boards. Further details on the methods we have used are included in the Technical Document available at <https://www.npeu.ox.ac.uk/mbrrace-uk/reports>.

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The Newcastle upon Tyne Hospitals
NHS Foundation Trust



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Saving Lives, Improving Mothers' Care

Lessons learned to inform maternity care from the UK
and Ireland Confidential Enquiries into Maternal Deaths
and Morbidity 2018-20

Compiled report including supplementary material



November 2022

Maternal, Newborn and Infant Clinical Outcome Review Programme



Saving Lives, Improving Mothers' Care

Core report: Lessons learned to inform maternity
care from the UK and Ireland Confidential Enquiries
into Maternal Deaths and Morbidity 2018-20

Marian Knight, Kathryn Bunch, Roshni Patel, Judy Shakespeare,
Rohit Kotnis, Sara Kenyon, Jennifer J Kurinczuk (Eds.)

November 2022

Funding

The Maternal, Newborn and Infant Clinical Outcome Review Programme, delivered by MBRRACE-UK, is commissioned by the Healthcare Quality Improvement Partnership (HQIP) as part of the National Clinical Audit and Patient Outcomes Programme (NCAPOP). HQIP is led by a consortium of the Academy of Medical Royal Colleges, the Royal College of Nursing, and National Voices. Its aim is to promote quality improvement in patient outcomes. The Clinical Outcome Review Programmes, which encompass confidential enquiries, are designed to help assess the quality of healthcare, and stimulate improvement in safety and effectiveness by systematically enabling clinicians, managers, and policy makers to learn from adverse events and other relevant data. HQIP holds the contract to commission, manage, and develop the National Clinical Audit and Patient Outcomes Programme (NCAPOP), comprising around 40 projects covering care provided to people with a wide range of medical, surgical and mental health conditions. The Maternal, Newborn and Infant Clinical Outcome Review Programme is funded by NHS England, the Welsh Government, the Health and Social Care division of the Scottish government, The Northern Ireland Department of Health, and the States of Jersey, Guernsey, and the Isle of Man. www.hqip.org.uk/national-programmes.

Design by: Sarah Chamberlain and Andy Kirk

Cover Artist: Tana West

This report should be cited as:

Knight M, Bunch K, Patel R, Shakespeare J, Kotnis R, Kenyon S, Kurinczuk JJ (Eds.) on behalf of MBRRACE-UK. Saving Lives, Improving Mothers' Care Core Report - Lessons learned to inform maternity care from the UK and Ireland Confidential Enquiries into Maternal Deaths and Morbidity 2018-20. Oxford: National Perinatal Epidemiology Unit, University of Oxford 2022.

ISBN: 978-0-9956854-2-0

Individual chapters from this report should be cited using the format of the following example for chapter 4:

Frise C, Russell S, Kelly T, Shakespeare J, Cranfield K, Mathers R, Bunch K and Knight M on behalf of the MBRRACE-UK diabetes and multimorbidity chapter-writing group. Messages on caring for women with multiple morbidities. In: Knight M, Bunch K, Patel R, Shakespeare J, Kotnis R, Kenyon S, Kurinczuk JJ (Eds.) on behalf of MBRRACE-UK. Saving Lives, Improving Mothers' Care Core Report - Lessons learned to inform maternity care from the UK and Ireland Confidential Enquiries into Maternal Deaths and Morbidity 2018-20. Oxford: National Perinatal Epidemiology Unit, University of Oxford 2022: p34-44

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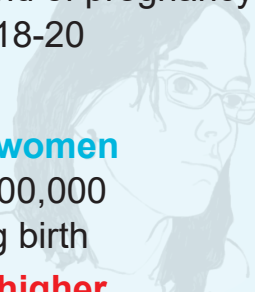
Missing Voices

Key messages from the report 2022



229 women died during or up to six weeks after the end of pregnancy in 2018-20

10.9 women per 100,000 giving birth
24% higher than 2017-19



27 of their babies died
366 motherless children remain



A further **289 women** died between six weeks and a year after the end of pregnancy in 2018-20

13.8 women per 100,000 giving birth



9 women died from covid-19



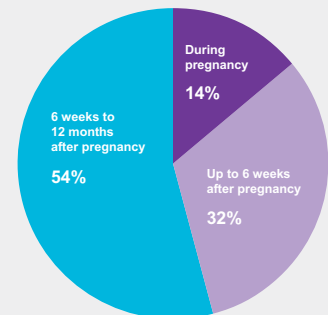
Excluding their deaths, **10.5 women** died per 100,000 giving birth

19% higher than 2017-19

1 in 9 women who died had **severe and multiple disadvantage**



Most women died in the postnatal period **86%**

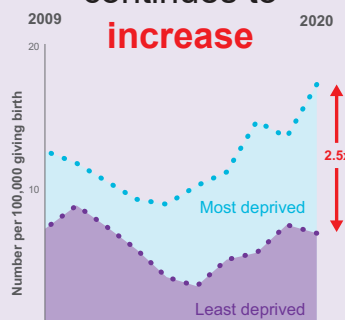


Black women were **3.7x** more likely to die than white women (**34 women** per 100,000 giving birth)

Asian women were **1.8x** more likely to die than white women (**16 women** per 100,000 giving birth)

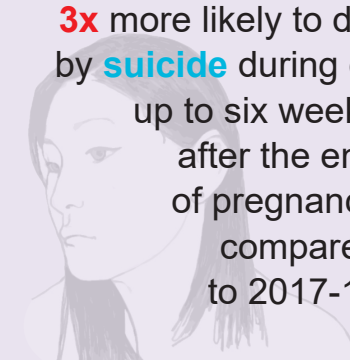


More women from **deprived areas** are dying and this continues to **increase**



In 2020, women were **3x** more likely to die by **suicide** during or up to six weeks after the end of pregnancy compared to 2017-19

1.5 women per 100,000 giving birth



Executive Summary

Introduction

This report, the ninth MBRRACE-UK annual report of the Confidential Enquiry into Maternal Deaths and Morbidity, includes surveillance data on women who died during or up to one year after pregnancy between 2018 and 2020 in the UK. In addition, it also includes Confidential Enquiries into the care of women who died between 2018 and 2020 in the UK and Ireland from cardiovascular causes, hypertensive disorders, early pregnancy disorders and accidents and the care of women who died from mental-health related causes in 2020.

The report also includes a Morbidity Confidential Enquiry into the care of women with diabetic ketoacidosis in pregnancy.

Surveillance information is included for 536 women who died during or up to one year after the end of pregnancy between 2018 and 2020. The care of 61 women with diabetic ketoacidosis in pregnancy was reviewed in depth for the Confidential Enquiry chapter.

This report can be read as a single document; each chapter is also designed to be read as a standalone report as, although the whole report is relevant to maternity staff, service providers and policy-makers, there are specific clinicians and service providers for whom only single chapters are pertinent. There are seven different chapters which may be read independently, the topics covered are: 1. Surveillance of maternal deaths 2. Mental health and multiple adversity 3. Diabetic ketoacidosis (morbidity enquiry) 4. Cardiovascular disease 5. Hypertensive disorders of pregnancy 6. Early pregnancy disorders 7. Critical care.

Methods

Maternal deaths are reported to MBRRACE-UK, NIMACH or to MDE Ireland by the staff caring for the women concerned, or through other sources including coroners, procurators fiscal and media reports. In addition, identification of deaths is cross-checked with records from the Office for National Statistics, Information Services Division Scotland and National Records of Scotland. Each woman's care is examined by between ten and fifteen multidisciplinary expert reviewers and assessed against current guidelines and standards (such as that produced by NICE or relevant Royal Colleges and other professional organisations). Subsequently the expert reviews of each woman's care are examined by a multidisciplinary writing group to enable the main themes for learning to be drawn out for the MBRRACE-UK report. These recommendations for future care are presented here, alongside a surveillance chapter reporting three years of UK statistical surveillance data.

IMPORTANT NOTE: Relevant actions are addressed to all health professionals involved in the care of women who are pregnant, have recently been pregnant or likely to become pregnant in the future as silo working leading to compromised care is a recurring theme identified in these enquiries. *The phrasing 'All Health Professionals' is used for brevity but should be taken to mean the groups noted above.* Some actions may be more pertinent to specific professional groups than others but all should nonetheless be reviewed for relevance to practice by each group.

Causes and trends

There was a statistically non-significant increase in the overall maternal death rate in the UK between 2015-17 and 2018-20. An increase occurred even when deaths due to covid were excluded which suggests that an even greater focus on implementation of the recommendations of these reports is needed to achieve a reduction in maternal deaths. **ACTION: Policy makers, service planners/commissioners, service managers, all health professionals**

There remains a more than three-fold difference in maternal mortality rates amongst women from Black ethnic backgrounds and an almost two-fold difference amongst women from Asian ethnic backgrounds compared to White women, emphasising the need for a continued focus on action to address these disparities. **ACTION: Policy makers, service planners/commissioners, service managers, all health professionals**

Psychiatric disorders and cardiovascular disorders are now responsible for the same number of maternal deaths in the UK; together these two causes represent 30% of maternal deaths. During 2020, maternal mortality directly attributable to covid-19 was at a rate comparable with that due to psychiatric and cardiovascular disorders.

There was a statistically significant increase in maternal death rates from direct causes between 2015-17 and 2018-20. Thrombosis and thromboembolism remains the leading cause of direct maternal death during or up to six weeks after the end of pregnancy.

Deaths from mental health-related causes as a whole (suicide and substance abuse) account for nearly 40% of deaths occurring within a year after the end of pregnancy with maternal suicide remaining the leading cause of direct deaths in this period. Of concern is a further rise in suicides among young women, many of whom were care leavers.

Key messages to improve care

The majority of recommendations which MBRRACE-UK assessors have identified to improve care are drawn directly from existing guidance or reports and denote areas where implementation of existing guidance needs strengthening. Actions needed for which national guidelines are not available are presented here. All recommendations based on existing guidance are presented in online supplementary material available at www.npeu.ox.ac.uk/mbrrace-uk/reports

New recommendations to improve care

For professional organisations:

1. Develop guidance for the use of Brain Natriuretic Peptide measurement in pregnancy **[ACTION: Royal Colleges of Obstetricians and Gynaecologists, Physicians]**.
2. Develop guidance on ketone testing in pregnancy and the subsequent response to an abnormal test **[ACTION: Royal Colleges of Obstetricians and Gynaecologists, Midwives, Physicians, General Practitioners]**.
3. Ensure that guidance on the management of diabetic ketoacidosis in pregnancy is included in all guidelines used outside of the maternity setting **[ACTION: Joint British Diabetes Societies for Inpatient Care]**.

For policy makers, service planners/commissioners and service managers:

4. Commissioning bodies should ensure that providers of specialist Perinatal Mental Health Teams have sufficient resource to advise, and in complex or high-risk cases, be involved, in mental health assessments when in normal working hours. **[ACTION: Service planners/commissioners, Hospitals/Trusts/Health Boards]**.
5. Consider skills and drills training on the management of diabetic ketoacidosis in pregnancy to ensure that obstetricians and midwives are aware of the symptoms and signs of diabetic ketoacidosis. **[ACTION: Hospitals/Trusts/Health Boards]**.
6. Ensure the appropriate national Maternity Early Warning Score is used to monitor a pregnant woman wherever in the hospital she receives care **[ACTION: Service Planners/Commissioners, Hospitals/Trusts/Health Boards]**.
7. Ensure that the national Patient Group Direction allowing prescription of aspirin for pregnant women at risk of pre-eclampsia by midwives and pharmacists is widely implemented **[ACTION: Service Planners/Commissioners, Hospitals/Trusts/Health Boards]**.
8. Ensure that women's electronic records can be easily accessed and shared when they receive care in different settings **[ACTION: National Digital Policy Teams, Service Planners/Commissioners, Hospitals/Trusts/Health Boards]**.
9. Be aware of how to contact the regional maternal medicine lead for urgent advice to ensure multidisciplinary senior review of women who are unwell. **[ACTION: Service Planners/Commissioners, Hospitals/Trusts/Health Boards, All Health Professionals]**.
10. Ensure maternal medicine networks and their equivalents in the devolved nations and Republic of Ireland can provide appropriate expertise and supervision for all women including those in rural/remote areas **[ACTION: Service Planners/Commissioners, Hospitals/Trusts/Health Boards, All Health Professionals]**.
11. Vulnerable and young women remain disproportionately represented amongst those who have died from ectopic pregnancy. Ensure care is personalised to provide appropriate additional safety measures **[ACTION: Service Planners/Commissioners, Hospitals/Trusts/Health Boards]**.
12. Recognise the importance of a trauma history in the assessment of risk. Involve specialist Perinatal Mental Health Teams where there is a history of significant involvement with secondary mental health services or significant risk, particularly if it is a first pregnancy **[ACTION: Service planners/commissioners, service managers, health professionals]**.
13. Allow sufficient opportunity in electronic records systems for free text comment rather than relying solely on 'tick boxes'. Where a woman has a history of mental health difficulties, make a brief (as a minimum) comment on mental health **[ACTION: Service planners/commissioners, service managers, health professionals]**.

For health professionals and those designing professional education programmes:

14. Assess women with persistent and severe insomnia carefully for signs of underlying mental illness **[ACTION: All health professionals]**.
15. Access services such as Psychiatric Liaison, Crisis and Street Triage Teams should alert specialist Perinatal Mental Health Teams to any referrals of self-harm in pregnant or postpartum women that they have received to allow triage regarding the need for specialist follow-up **[ACTION: All health professionals]**.

16. Be alert to factors, such as cultural stigma or fear of child removal, which may influence the willingness of a woman or her family to disclose symptoms of mental illness, thoughts of self-harm or substance misuse **[ACTION: All Health Professionals, Professional education programmes]**.
17. Wheeze can be due to pulmonary oedema. Consider wheeze which does not respond to standard asthma management and exertional syncope as red flag symptoms of cardiovascular disease in addition to ortho-pnoea and chest pain **[ACTION: All Health Professionals, Professional education programmes]**.
18. Be aware of the common risk factors for heart disease and venous thromboembolism, such as extreme obesity, and consider on an individual basis whether women should be made aware of the symptoms and signs of heart disease as well as those of venous thromboembolism **[ACTION: All Health Professionals, Professional education programmes]**.
19. Be aware that women using oral anticoagulation with warfarin may be more safely managed without transition to low molecular weight heparin treatment when having an early termination of pregnancy **[ACTION: All Health Professionals, Professional education programmes]**.
20. Be aware of the added risk of fetal compromise when a woman's pregnancy is complicated by both hypertension and diabetes. It is not only babies predicted to be small for gestational age who may be at risk **[ACTION: All Health Professionals, Professional education programmes]**.
21. Involve the critical care team in antenatal multidisciplinary team planning for women with serious morbidity who are anticipated to require admission to intensive care after giving birth **[ACTION: All Health Professionals]**.

Conclusions

This report includes the surveillance information for women who died during and after pregnancy for 2018-20, which includes the first year of the Covid-19 pandemic, when there were many service-related changes. The clearest impact on maternal mortality rates has been an increase in mental health-related deaths, principally women who have died by suicide. The maternal mortality rate has risen even if women who died from Covid-19 are excluded. Across all the chapters in this report, assessors identified important messages concerning the care of women with multiple adversity and multiple morbidities, who are once again over-represented. The reviews of the care of women who died from Covid-19 are not included here, but impacts of pandemic-related service changes have been noted in several chapters reporting on the care of women who died from other conditions. The majority of women who died from Covid-19 in 2020 were from ethnic minority groups, but it is encouraging that despite this the disparity in maternal mortality rates between women from Black, Asian and Mixed ethnic groups and White women has continued to decrease slightly. Nevertheless, the maternal mortality rate amongst women who live in the most deprived areas is increasing and addressing these disparities must remain an important focus.

Acknowledgements

It is with grateful thanks that the MBRRACE-UK collaboration would like to acknowledge the contribution of the many healthcare professionals and staff from the health service and other organisations who were involved in the notification of maternal deaths, the provision of data and the assessment of individual deaths in both the UK and Ireland. Without the generous contribution of their time and expertise it would not have been possible to produce this report. It is only through this collaborative effort that it has been possible to conduct this confidential enquiry and to continue the UK tradition of national self-audit to improve care for women, babies and their families in the future. We would particularly like to thank all MBRRACE-UK Lead Reporters and other staff in Trusts and Health Boards across the UK and Ireland who provided the information about women who died to enable the enquiry to be conducted.

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Glossary of terms

ACE	Angiotensin-converting enzyme	IMD	Index of Multiple Deprivation
AF	Atrial fibrillation	ITU	Intensive Therapy Unit
AFLP	Acute fatty liver disease of pregnancy	IV	Intravenous
BAP	British Association for Psychopharmacology	IVF	In vitro fertilisation
BAPM	British Association of Perinatal Medicine	JBPS-IP	Joint British Diabetes Societies for Inpatient care
BMI	Body Mass Index	LMWH	Low molecular weight heparin
BNP	Brain Natriuretic Peptide	MBRRACE-UK	Mothers and Babies: Reducing Risk through Audits and Confidential Enquiries across the UK
BP	Blood pressure	MDE	Maternal Death Enquiry
CEMD	Confidential Enquiries into Maternal Deaths	MEWS	Maternity Early Warning Score
CI	Confidence interval	MEOWS	Maternity Early Obstetric Warning System
CKS	Clinical Knowledge Summaries	MRI	Magnetic Resonance Imaging
CMACE	Centre for Maternal and Child Enquiries	NCAPOP	National Clinical Audit and Patient Outcomes Programme
COVID-19	Coronavirus disease 2019	NHS	National Health Service
CT	Computerised Tomography	NICE	National Institute for Health and Care Excellence
CTPA	Computerised Tomography Pulmonary Angiogram	NICU	Neonatal Intensive Care Unit
EACTS	European Association for Cardio-Thoracic Surgery	NIMACH	Northern Ireland Maternal and Child Health
ECG	Electrocardiogram	ONS	Office for National Statistics
ECMO	Extracorporeal Membrane Oxygenation	PPCM	Peripartum cardiomyopathy
ESC	European Society for Cardiology	RCOG	Royal College of Obstetricians and Gynaecologists
ESPEN	European Society for Clinical Nutrition and Metabolism	RCP	Royal College of Physicians
EWS	Early warning systems	RCPPath	Royal College of Pathologists
FAST	Focussed Assessment with Sonography in Trauma	RR	Rate ratio
GP	General practitioner	RRR	Ratio of relative risks
GMC	General Medical Council	SADS/MNH	Sudden arrhythmic death syndrome with a morphologically normal heart
Hb	Haemoglobin	SARS-CoV-2	Severe Acute Respiratory Syndrome Coronavirus 2
HbA1c	Glycated Haemoglobin (A1c)	SCAD	Spontaneous coronary artery dissection
hCG	Human Chorionic Gonadotrophin	SIGN	Scottish Intercollegiate Guidelines Network
HELLP	Haemolysis, elevated Liver enzymes and Low Platelet count	SSRI	Selective serotonin reuptake inhibitors
HQIP	Healthcare Quality Improvement Partnership	STEMI	ST-elevation myocardial infarction
HSE	Health Service Executive	UKOSS	UK Obstetric Surveillance System
HSIB	Health Safety Investigation Branch	VTE	Venous thromboembolism
ICD-MM	International Classification of Diseases – Maternal Mortality	WHO	World Health Organisation
ICU	Intensive Care Unit		

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1. Introduction and methods

In accordance with funder requirements, this report is has been considerably shortened and will no longer include an update on actions which have followed previous reports. Readers are referred to the 2016 report (Knight, Nair et al. 2016) for a full description of the methods of the confidential enquiry into maternal deaths, and to chapter 4 for a description of the methods for this year's confidential enquiry into maternal morbidity, which focussed on diabetes and multimorbidity.

Key to colour coding

Vignettes concerning the care of women who died are described in blue boxes

Vignettes concerning the care of women who had severe morbidity but survived are described in purple boxes with the character M in the corner M

The majority of recommendations arise from existing national guidelines or previous reports and the source of these recommendations are cited within green boxes. Example:

Existing guidance requiring improved implementation is presented in green boxes

NICE 2345

Recommendations based on improvements in care noted by MBRRACE reviewers for which there is no current national guidance and which has not been noted in previous guidance or reports are shown in purple boxes. Example:

New recommendations are presented in purple boxes with the character N in the corner. N

The recommendations identified by MBRRACE reviewers as the most frequently needed improvements are highlighted in the key messages section at the start of each chapter. The specific individuals or professional groups who need to take action are indicated alongside the key messages, where appropriate.

2. Maternal Mortality in the UK 2018-20: Surveillance and Epidemiology

Kathryn Bunch and Marian Knight

2.1 Key points

There was a statistically non-significant increase in the overall maternal death rate in the UK between 2015-17 and 2018-20. An increase occurred even when deaths due to covid were excluded which suggests that an even greater focus on implementation of the recommendations of these reports is needed to achieve a reduction in maternal deaths. **ACTION: Policy makers, service planners/commissioners, service managers, all health professionals**

There remains a more than three-fold difference in maternal mortality rates amongst women from Black ethnic backgrounds and an almost two-fold difference amongst women from Asian ethnic backgrounds compared to white women, emphasising the need for a continued focus on action to address these disparities. **ACTION: Policy makers, service planners/commissioners, service managers, all health professionals**

Eleven percent of the women who died during or up to a year after pregnancy in the UK in 2018-20 were at severe and multiple disadvantage. The main elements of multiple disadvantage were a mental health diagnosis, substance use and domestic abuse.

Psychiatric disorders and cardiovascular disorders are now responsible for the same number of maternal deaths in the UK; together these two causes represent 30% of maternal deaths. During 2020, maternal mortality directly attributable to covid-19 was at a rate comparable with that due to psychiatric and cardiovascular disorders.

There was a statistically significant increase in maternal death rates from direct causes between 2015-17 and 2018-20. Thrombosis and thromboembolism remains the leading cause of direct maternal death during or up to six weeks after the end of pregnancy.

Deaths from mental health-related causes as a whole (suicide and substance abuse) account for nearly 40% of deaths occurring within a year after the end of pregnancy with maternal suicide remaining the leading cause of direct deaths in this period.

2.2 Causes and trends

Overall, 247 women died in 2018-20 during or within 42 days of the end of pregnancy in the UK. The deaths of 18 women were classified as coincidental. Thus in this triennium 229 women died from direct and indirect causes, classified using ICD-MM (World Health Organisation 2012), among 2,101,829 maternities, a maternal death rate of 10.90 per 100,000 maternities (95% CI 9.53 – 12.40). This compares to the rate of 8.79 per 100,000 maternities (95% CI 7.58 – 10.12) in 2017-19 (rate ratio (RR) 1.24, 95% CI 1.02-1.51, $p=0.028$). Nine of the deaths which occurred between March and December 2020 were directly attributable to Covid-19 infection. If these nine deaths are excluded, the maternal mortality rate for 2018-20 would be 10.47 (95% CI 9.13 – 11.95) still higher than the rate for 2017-19 (RR 1.19 (95%CI 0.98 – 1.45), $p=0.077$) but no longer significantly so. As in previous MBRRACE-UK maternal reports, information about deaths from the Republic of Ireland is not included in this chapter and therefore rates and numbers presented here are comparable with all previous UK reports.

Table 2.1 and Figure 2.1 show rolling three-yearly maternal death rates since 2003 using ICD-MM. There remains an overall decrease in maternal death rates between 2003-05 and 2018-20 (rate ratio (RR) 0.78, 95% CI 0.65-0.93, $p=0.005$ for trend in rolling rates over time). The direct maternal death rate has decreased by 23% since 2003-05 with a RR of 0.77 (95% CI 0.59-0.99 $p=.036$) while there was a 21% decrease in the rate of indirect maternal deaths (RR 0.79, 95% CI 0.62-1.02, $p=0.059$).

The progress towards the Government ambition to reduce maternal mortality by 50% between 2010 and 2025 (Department of Health 2017) can be assessed by comparing maternal death rates between the 2010-12 and 2018-20 triennia. Over this time, maternal mortality has increased by 8%, (RR 1.08, 95% CI 0.90-1.30). Excluding 2020 maternal deaths from covid-19, maternal mortality over this period has increased by 3% (RR 1.03, 95% CI 0.86-1.27).

The rates of overall mortality and indirect maternal death in the 2018-20 triennium were not statistically significantly different from the rates in 2015-17, the immediately preceding triennium (RR for overall mortality = 1.19, 95% CI 0.98 to 1.44, $p=0.071$; RR for indirect deaths = 1.07, 95% CI 0.82 to 1.38, $p=0.613$)(excluding 9 deaths from covid-19 RR for overall mortality = 1.14, 95% CI 0.94 to 1.14, $p=0.169$; RR for indirect deaths = 0.99, 95% CI 0.76 to

1.29, p=0.922). The direct maternal death rate has however risen significantly between 2015-17 and 2018-20 (RR 1.36, 95% CI 1.02 to 1.82, p=0.033). It is concerning that maternal mortality rates, overall, direct and indirect have increased, albeit the increase is only statistically significant for direct deaths.

Triennial rates are shown in Table 2.2 and Figure 2.2, and suggest that the decrease in maternal mortality reported previously is no longer evident in the most recent triennium.

Table 2.1: Three-year rolling average direct and indirect maternal mortality rates per 100,000 maternities, deaths classified using ICD-MM; UK 2003-20

3-year period	Total UK maternities	Direct deaths			Indirect deaths			Total Direct and Indirect deaths		
		n	Rate	95% CI	n	Rate	95% CI	n	Rate	95% CI
2003-05	2 114 004	143	6.76	5.70 - 7.97	152	7.19	6.09 - 8.43	295	13.95	12.45-15.64
2004-06	2 165 909	124	5.73	4.76 - 6.83	148	6.83	5.78 - 8.03	272	12.56	11.15-14.14
2005-07	2 220 979	120	5.40	4.48 - 6.46	139	6.26	5.26 - 7.39	259	11.66	10.32-13.17
2006-08	2 291 493	120	5.24	4.34 - 6.26	141	6.15	5.18 - 7.26	261	11.39	10.09-12.86
2007-09	2 331 835	112	4.80	3.95 - 5.78	142	6.09	5.13 - 7.18	254	10.89	9.59-12.32
2008-10	2 366 082	99	4.18	3.40 - 5.09	162	6.85	5.83 - 7.99	261	11.03	9.73-12.45
2009-11	2 379 014	90	3.78	3.04 - 4.65	163	6.85	5.84 - 7.99	253	10.63	9.36-12.03
2010-12	2 401 624	89	3.71	2.98 - 4.56	154	6.41	5.44 - 7.51	243	10.12	8.89-11.47
2011-13	2 373 213	83	3.50	2.79 - 4.34	131	5.52	4.62 - 6.55	214	9.02	7.85-10.31
2012-14	2 341 745	81	3.46	2.75 - 4.30	119	5.08	4.21 - 6.08	200	8.54	7.40 - 9.81
2013-15	2 305 920	88	3.82	3.06 - 4.70	114	4.94	4.08 - 5.94	202	8.76	7.59 - 10.05
2014-16	2 301 628	98	4.26	3.46 - 5.19	127	5.52	4.60 - 6.57	225	9.78	8.54 - 11.14
2015-17	2 280 451	87	3.82	3.06 - 4.71	122	5.35	4.44 - 6.39	209	9.16	7.96 - 10.50
2016-18	2 235 159	92	4.12	3.32 - 5.05	125	5.59	4.66 - 6.66	217	9.71	8.46 - 11.09
2017-19	2 173 810	78	3.59	2.84 - 4.48	113	5.20	4.28 - 6.25	191	8.79	7.58 - 10.12
2018-20	2 101 829	109	5.19	4.26 - 6.26	120	5.71	4.73 - 6.83	229	10.90	9.53 - 12.40

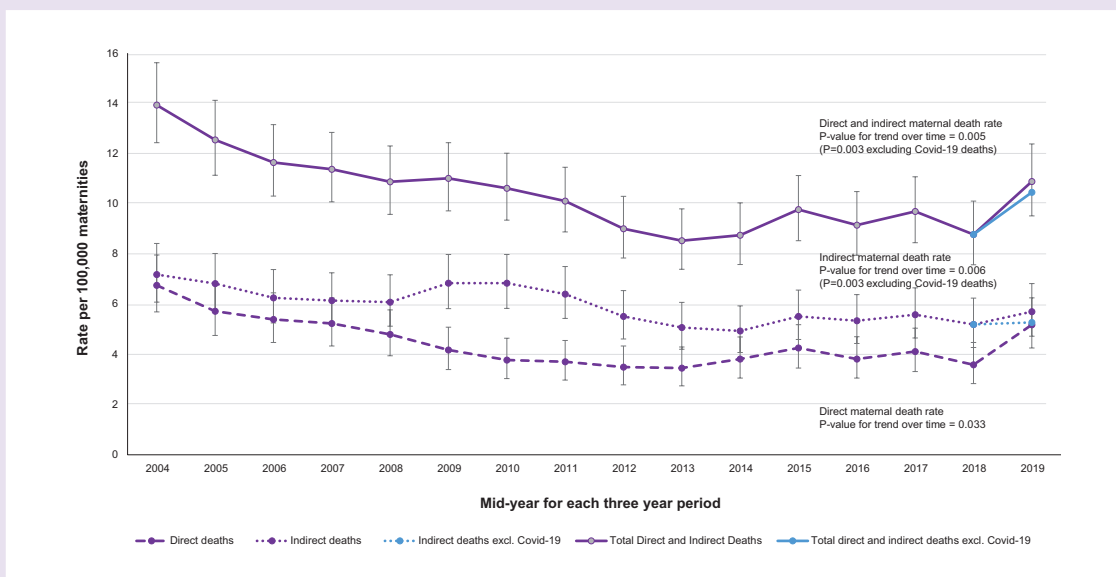
Sources: CMACE, MBRRACE-UK, Office for National Statistics, General Register Office for Scotland, Northern Ireland Statistics and Research Agency

Table 2.2: Direct and Indirect maternal deaths and mortality rates per 100,000 maternities by discrete triennia, UK using ICD-MM; UK 2003-20

Triennium	Direct deaths recorded			Indirect deaths recorded			Total Direct and Indirect deaths recorded		
	n	Rate	95% CI	n	Rate	95% CI	n	Rate	95% CI
2003-05	143	6.76	5.70 - 7.97	152	7.19	6.09 - 8.43	295	13.95	12.45-15.64
2006-08	120	5.24	4.34 - 6.26	141	6.15	5.18 - 7.26	261	11.39	10.09-12.86
2009-11	90	3.78	3.04 - 4.65	163	6.85	5.84 - 7.99	253	10.63	9.36-12.03
2012-14	81	3.46	2.75 - 4.30	119	5.08	4.21 - 6.08	200	8.54	7.40 - 9.81
2015-17	87	3.82	3.06 - 4.71	122	5.35	4.44 - 6.39	209	9.16	7.96 - 10.50
2018-20	109	5.19	4.26 - 6.26	120	5.71	4.73 - 6.83	229	10.90	9.53 - 12.40

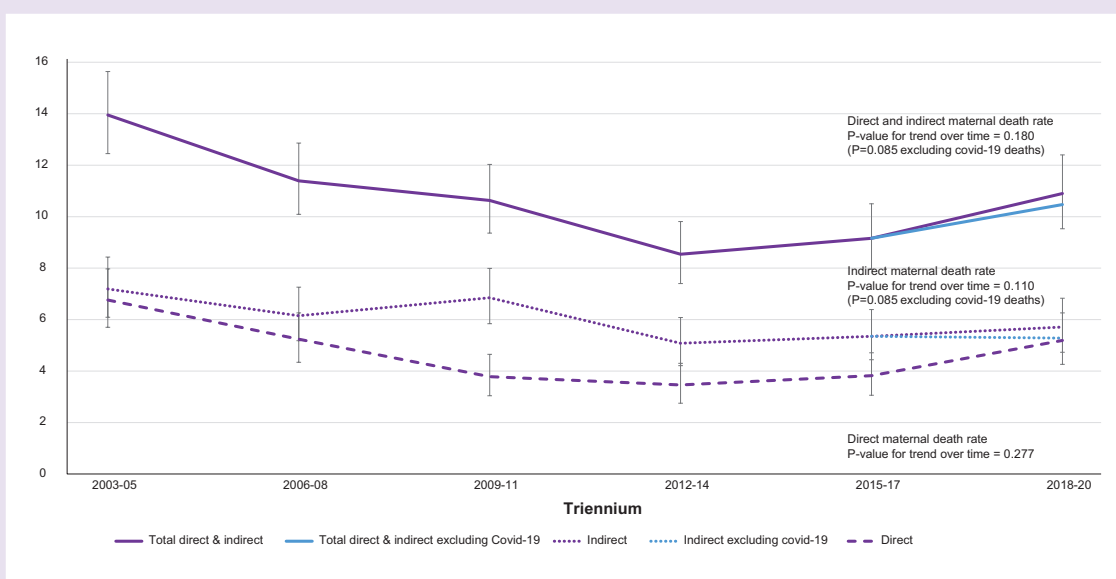
Sources: CMACE, MBRRACE-UK, Office for National Statistics, General Register Office for Scotland, Northern Ireland Statistics and Research Agency

Figure 2.1: Direct and indirect maternal mortality rates per 100,000 maternities using ICD-MM and previous UK classification systems; three-year rolling average rates 2003-2020



Sources: CMACE, MBRRACE-UK

Figure 2.2: Direct and Indirect maternal mortality rates per 100,000 maternities by discrete triennia; UK 2003-2020 (using ICD-MM)

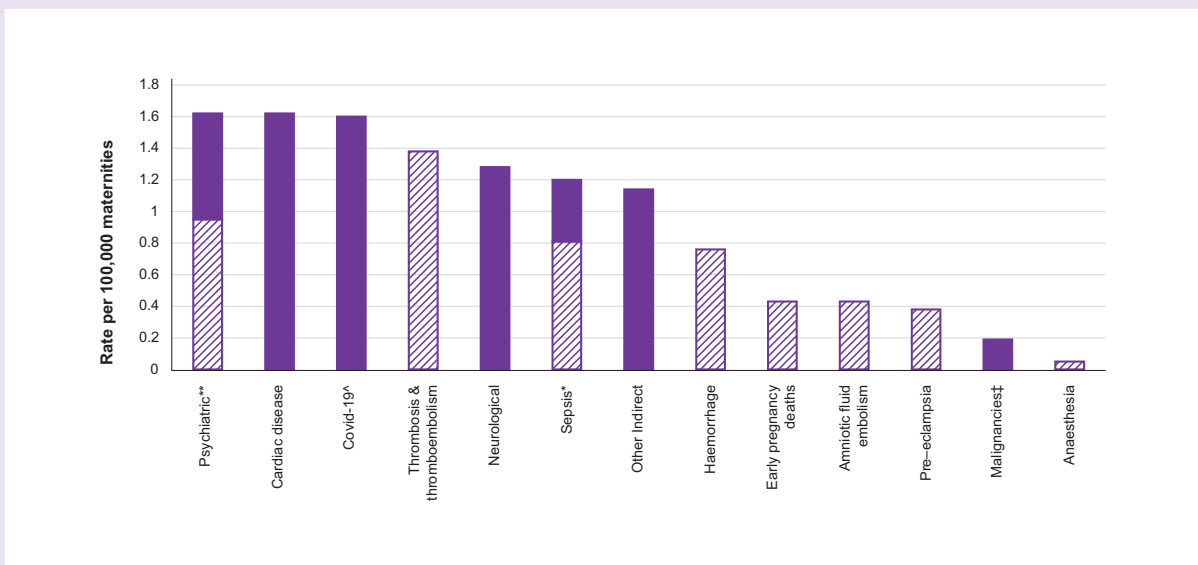


Sources: CMACE, MBRRACE-UK

Deaths due to individual causes

Maternal deaths by cause are shown in Tables 2.3 and 2.4, and Figure 2.3. Rolling three-year rates for individual causes are presented for five overlapping triennial reporting periods (2014-16, 2015-17, 2016-18, 2017-19 and 2018-20) (Table 2.3 and Figure 2.3) and for discrete, non-overlapping triennial periods between 1985-7 and 2018-20 (Table 2.4). This current report is the final report in a three-year cycle, therefore Table 2.4 has been newly updated with the latest triennial figures; deaths by suicide have been included amongst indirect deaths in Table 2.4 to allow for comparability to earlier years. Three-year rolling rates for causes of death classified according to ICD-MM sub-groups are presented in Table 2.5 and Figure 2.4.

Figure 2.3: Maternal mortality by cause 2018-20



Hatched bars show direct causes of death, solid bars indicate indirect causes of death;

*Rate for direct sepsis (genital tract sepsis and other pregnancy related infections) is shown in hatched and rate for indirect sepsis (influenza, pneumonia, others) in solid bar;

**Rate for suicides (direct) is shown in hatched and rate for indirect psychiatric causes (drugs/alcohol) in solid bar;

‡Rate for indirect malignancies (breast/ovary/cervix);

^Rate for Covid-19 deaths calculated using maternities March to December 2020 as denominator.

Source: MBRRACE-UK

Table 2.3: Maternal mortality rates per 100,000 maternities, by cause, by overlapping triennia, 2014 to 2020

	2014-16			2015-17			2016-18			2017-19			2018-20		
	n	Rate	95% CI	n	Rate	95% CI	n	Rate	95% CI	n	Rate	95% CI	n	Rate	95% CI
All Direct and Indirect deaths	225	9.78	8.54 - 11.14	209	9.16	7.96 - 10.50	217	9.71	8.46 - 11.09	191	8.79	7.58 - 10.12	229	10.90	9.53 - 12.40
Direct deaths															
Pregnancy related infections - Sepsis*	11	0.48	0.24 - 0.86	10	0.44	0.21 - 0.81	12	0.54	0.28 - 0.94	13	0.60	0.32 - 1.02	17	0.81	0.47 - 1.29
Pre-eclampsia and eclampsia	6	0.26	0.10 - 0.57	5	0.22	0.07 - 0.51	4	0.18	0.05 - 0.46	6	0.28	0.10 - 0.60	8	0.38	0.16 - 0.75
Thrombosis and thromboembolism	32	1.39	0.95 - 1.96	34	1.49	1.03 - 2.08	33	1.48	1.02 - 2.07	20	0.92	0.56 - 1.42	29	1.38	0.92 - 1.98
Amniotic fluid embolism	9	0.39	0.18 - 0.74	6	0.26	0.10 - 0.57	6	0.27	0.10 - 0.58	7	0.32	0.13 - 0.66	9	0.43	0.20 - 0.81
Early pregnancy deaths	3	0.13	0.03 - 0.38	4	0.18	0.05 - 0.45	7	0.31	0.13 - 0.65	7	0.32	0.13 - 0.66	9	0.43	0.20 - 0.81
Haemorrhage	18	0.78	0.46 - 1.24	11	0.48	0.24 - 0.86	14	0.63	0.34 - 1.05	14	0.64	0.35 - 1.08	16	0.76	0.44 - 1.24
Anaesthesia	1	0.04	0.001 - 0.24	1	0.04	0.001 - 0.24	1	0.05	0.001 - 0.25	1	0.05	0.001 - 0.26	1	0.05	0.001 - 0.27
Psychiatric causes - Suicides	16	0.70	0.40 - 1.13	13	0.57	0.30 - 0.98	14	0.63	0.34 - 1.05	10	0.46	0.22 - 0.85	20	0.95	0.58 - 1.47
Malignancy - direct	1	0.04	0.001 - 0.24	1	0.04	0.001 - 0.24	-	-	-	-	-	-	-	-	-
Unascertained - direct	1	0.04	0.001 - 0.24	2	0.09	0.01 - 0.32	1	0.05	0.001 - 0.25	-	-	-	-	-	-
All Direct	98	4.26	3.46 - 5.19	87	3.82	3.06 - 4.71	92	4.12	3.32 - 5.05	78	3.59	2.84 - 4.48	109	5.19	4.26 - 6.26
Indirect															
Cardiac disease	55	2.39	1.80 - 3.11	48	2.10	1.55 - 2.79	50	2.24	1.66 - 2.95	36	1.66	1.16 - 2.29	34	1.62	1.12 - 2.26
Indirect Sepsis - Influenza	2	0.09	0.01 - 0.31	1	0.04	0.001 - 0.24	2	0.09	0.01 - 0.32	2	0.09	0.01 - 0.33	2	0.10	0.01 - 0.34
Indirect Sepsis - Pneumonia/ others	6	0.26	0.10 - 0.57	9	0.39	0.18 - 0.75	9	0.40	0.18 - 0.76	8	0.37	0.16 - 0.73	6	0.29	0.11 - 0.62
Indirect sepsis - Covid-19													9	1.60	0.73 - 3.04
Other Indirect causes	26	1.13	0.74 - 1.66	23	1.01	0.64 - 1.51	15	0.67	0.38 - 1.11	19	0.87	0.53 - 1.36	24	1.14	0.73 - 1.70
Indirect neurological conditions	24	1.04	0.67 - 1.55	27	1.18	0.78 - 1.72	29	1.30	0.87 - 1.86	33	1.52	1.04 - 2.13	27	1.28	0.85 - 1.87
Psychiatric causes: Drugs/alcohol/others	6	0.26	0.10 - 0.57	7	0.31	0.12 - 0.63	14	0.63	0.34 - 1.05	10	0.46	0.22 - 0.85	14	0.67	0.36 - 1.12
Indirect malignancies	8	0.35	0.15 - 0.69	7	0.31	0.12 - 0.63	6	0.27	0.10 - 0.58	5	0.23	0.07 - 0.54	4	0.19	0.05 - 0.49
All Indirect	127	5.52	4.60 - 6.57	122	5.35	4.44 - 6.39	125	5.59	4.66 - 6.66	113	5.20	4.28 - 6.25	120	5.71	4.73 - 6.83
Coincidental															
Homicide	10	0.43	0.21 - 0.80	7	0.31	0.12 - 0.63	5	0.22	0.07 - 0.52	4	0.18	0.05 - 0.47	4	0.19	0.05 - 0.49
Other coincidental	24	1.04	0.67 - 1.55	20	0.88	0.54 - 1.35	20	0.90	0.55 - 1.38	16	0.74	0.42 - 1.20	14	0.67	0.36 - 1.12
All coincidental	34	1.48	1.02 - 2.06	27	1.18	0.78 - 1.72	25	1.12	0.72 - 1.65	20	0.92	0.56 - 1.42	18	0.86	0.51 - 1.35
Late deaths	286	12.43	11.03 - 13.95	313	13.73	12.25 - 15.33	305	13.65	12.16 - 15.27	284	13.06	11.59 - 14.68	289	13.75	12.21 - 15.43

*Genital/ urinary tract sepsis deaths, including early pregnancy deaths as a result of genital/urinary tract sepsis. Other deaths from infectious causes are classified under indirect causes. Source: MBRRACE-UK, Office for National Statistics, National Records Scotland, Northern Ireland Statistics and Research Agency.

Table 2.4: UK Maternal deaths and mortality rates per 100,000 maternities by cause, by discrete triennia, 1985-2020 (Maternal deaths by suicide classified as indirect for comparability)

Cause of death	Numbers												Rates per 100,000 maternities												
	1985-87	1988-90	1991-93	1994-96	1997-99	2000-02	2003-05	2006-08	2009-11	2012-14	2015-17	2018-20	1985-87	1988-90	1991-93	1994-96	1997-99	2000-02	2003-05	2006-08	2009-11	2012-14	2015-17	2018-20	
All Direct and Indirect deaths	223	238	228	268	242	261	295	261	253	200	209	229	9.83	10.08	9.85	12.19	11.4	13.07	13.95	11.39	10.63	8.54	9.16	10.90	
Direct deaths																									
Sepsis*	9	17	15	16	18	13	18	18	26	16	7	10	17	0.40	0.72	0.65	0.73	0.85	0.65	0.85	1.13	0.63	0.29	0.44	0.81
Pre-eclampsia and eclampsia	27	27	20	20	16	14	18	19	19	10	2	5	8	1.19	1.14	0.86	0.91	0.75	0.70	0.85	0.83	0.42	0.08	0.22	0.38
Thrombosis and thromboembolism	32	33	35	48	35	30	41	18	18	30	20	34	29	1.41	1.40	1.51	2.18	1.65	1.50	1.94	0.79	1.26	0.85	1.49	1.38
Amniotic fluid embolism	9	11	10	17	8	5	17	13	7	7	16	6	9	0.40	0.47	0.43	0.77	0.38	0.25	0.80	0.57	0.29	0.68	0.26	0.43
Early pregnancy deaths	16	24	17	15	17	15	14	11	4	4	7	4	9	0.71	1.02	0.73	0.68	0.80	0.75	0.66	0.48	0.17	0.29	0.18	0.43
Haemorrhage	10	22	15	12	7	17	14	9	14	14	13	11	16	0.44	0.93	0.65	0.55	0.33	0.85	0.66	0.39	0.59	0.56	0.48	0.76
Anaesthesia	6	4	8	1	3	6	6	7	3	3	2	1	1	0.26	0.17	0.35	0.05	0.14	0.30	0.28	0.31	0.12	0.09	0.04	0.05
Other Direct†	27	17	14	7	7	8	4	4	0	0	0	3	0	1.19	0.72	0.60	0.32	0.33	0.40	0.19	0.17	-	-	0.13	-
All direct	139	145	128	134	106	106	132	107	82	67	74	89	6.13	6.14	5.53	6.10	4.99	5.31	6.24	4.67	3.49	2.84	3.24	4.23	
Indirect deaths																									
Cardiac disease	23	18	37	39	35	44	48	53	51	51	48	34	34	1.01	0.76	1.60	1.77	1.65	2.20	2.27	2.31	2.14	2.18	2.10	1.62
Other Indirect causes	43	45	38	39	41	50	50	49	72	38	33	41	1.90	1.91	1.64	1.77	1.93	2.50	2.37	2.14	3.03	1.62	1.45	1.95	
Indirect neurological conditions	19	30	25	47	34	40	37	36	30	22	27	27	27	0.84	1.27	1.08	2.14	1.60	2.00	1.75	1.57	1.26	0.94	1.18	1.28
Psychiatric causes	†	†	†	9	15	16	18	13	13	18	20	34	†	†	†	†	0.41	0.71	0.80	0.85	0.57	0.55	0.77	0.88	1.62
Indirect malignancies	†	†	†	†	11	5	10	3	4	4	7	4	†	†	†	†	0.52	0.25	0.47	0.13	0.17	0.17	0.31	0.19	
All Indirect	84	93	100	134	136	155	163	154	170	133	135	140	3.70	3.94	4.32	6.10	6.40	7.76	7.71	6.59	7.15	5.68	5.92	6.66	
Coincidental	26	39	46	36	29	36	55	50	22	41	27	18	1.15	1.65	1.99	1.64	1.37	1.80	2.60	2.18	0.98	1.75	1.18	0.86	

*Including early pregnancy deaths as a result of sepsis

†Acute fatty liver and genital tract trauma; included with pre-eclampsia and eclampsia and haemorrhage respectively from 2009 onwards

†Deaths from these causes not included in reports from earlier years

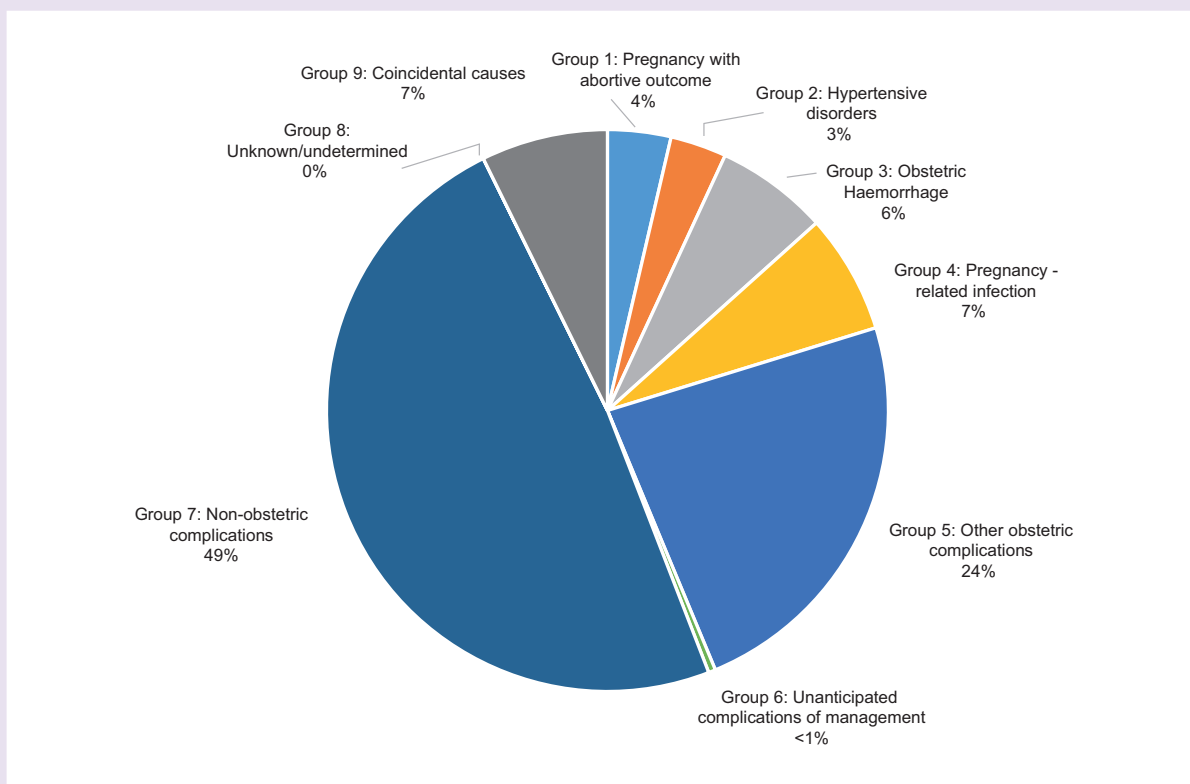
Sources: CMACE, MBRRACE-UK

Table 2.5: Maternal mortality rates per 100,000 maternities, by cause, by overlapping triennia, using ICD-MM classification, 2014 to 2020

Cause of death	2014-16			2015-17			2016-18			2017-19			2018-20		
	n	Rate	95% CI	n	Rate	95% CI	n	Rate	95% CI	n	Rate	95% CI	n	Rate	95% CI
Direct causes															
Group 1: Pregnancy with abortive outcome	3	0.13	0.03 – 0.38	4	0.18	0.05 – 4.49	7	0.31	0.13 – 0.65	7	0.32	0.13 – 0.66	9	0.43	0.20 – 0.81
Group 2: Hypertensive disorders	6	0.26	0.10 – 0.57	5	0.22	0.07 – 0.51	4	0.18	0.05 – 0.46	6	0.28	0.10 – 0.60	8	0.38	0.16 – 0.75
Group 3: Obstetric Haemorrhage	18	0.78	0.46 – 1.24	11	0.48	0.24 – 0.86	14	0.63	0.34 – 1.05	14	0.64	0.35 – 1.08	16	0.76	0.44 – 1.24
Group 4: Pregnancy-related infection	11	0.48	0.24 – 0.86	10	0.44	0.21 – 0.81	12	0.54	0.28 – 0.94	13	0.60	0.32 – 1.02	17	0.81	0.47 – 1.29
Group 5: Other obstetric complications	59	2.56	1.95 – 3.31	56	2.46	1.85 – 3.19	54	2.42	1.81 – 3.15	37	1.70	1.20 – 2.35	58	2.76	2.10 – 3.57
Group 6: Unanticipated complications of management	1	0.04	0.001 – 0.24	1	0.04	0.001 – 0.24	1	0.05	0.001 – 0.25	1	0.05	0.001 – 0.30	1	0.05	0.001 – 0.27
Indirect causes															
Group 7: Non-obstetric complications	127	5.52	4.60 – 6.57	122	5.35	4.44 – 6.39	125	5.59	4.66 to 6.66	113	5.20	4.28 – 6.25	120	5.71	4.73 – 6.83
Group 8: Unknown/undetermined	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-
Coincidental causes															
Group 9: Coincidental causes	34	1.48	1.02 – 2.06	27	1.18	0.78 – 1.72	25	1.12	0.72 – 1.65	20	0.92	0.56 – 1.42	18	0.86	0.51 – 1.35

Source: MBRRACE-UK, Office for National Statistics, National Records Scotland, Northern Ireland Statistics and Research Agency.

Figure 2.4: Maternal mortality proportions by ICD-MM classification 2018-20



Direct deaths

Thrombosis and thromboembolism (VTE) continues to be the leading cause of direct deaths occurring within 42 days of the end of pregnancy (Figure 2.3). The maternal mortality rate from VTE remains at a similar rate to 2015-17, suggesting that several of these deaths could be prevented with improvements to care.

Deaths due to suicide, sepsis and obstetric haemorrhage are the next most frequent direct causes of maternal death. There has been a statistically significant increase in the rate of suicide during pregnancy and up to six weeks after pregnancy in the UK, comparing 2017-19 with 2020. 10 women died out of 2,173,810 women giving birth in 2017-19 (0.46 per 100,000) compared with 10 out of 674,377 in 2020 (1.48 per 100,000) (RR 3.22, 95% CI 1.20-8.63, $p=0.012$), thus review of suicide deaths for 2020 has been expedited and messages for care are described in Chapter 3. Note, as described in Chapter 3, that the majority of maternal suicide deaths occur between six weeks and a year after pregnancy. The rate of maternal mortality from haemorrhage remains little changed from last year. The mortality rate for pregnancy related sepsis has continued to increase steadily, and is now statistically significantly higher than at its nadir in 2012-14, emphasising the messages from the 2021 rapid report which highlighted the importance of 'thinking sepsis, and not just COVID-19'. The maternal death rate from pre-eclampsia and eclampsia continues to be low but remains more than four times higher than the lowest observed rate, in 2012-14. Mortality rates from amniotic fluid embolism and anaesthesia remain essentially unchanged with continuing extremely low rates due to anaesthetic causes.

Indirect deaths

Deaths due to indirect causes comprise just over half (52%) of direct and indirect maternal deaths in the UK. As in previous reports, cardiac disease remains the largest single cause of indirect maternal deaths (Figure 2.3). There has been a decrease in the maternal mortality rate from cardiac disease since enhanced case ascertainment was introduced, but this is not statistically significant (RR 0.71, 95% CI 0.45-1.13 when comparing 2018-20 with 2003-05). Across the 2018-20 triennium as a whole, neurological causes are the second most common indirect cause of maternal death, with a statistically non-significant decrease in mortality rate. Mortality rates from other indirect causes have increased slightly although non significantly since 2015-17 (RR 1.13, 95% CI 0.61-2.10). Between March and December 2020, 9 deaths of women who were either pregnant or within six weeks of the end of pregnancy were directly attributable to Covid-19. Based on the number of maternities for the same period, this represents a maternal mortality rate of 1.60 per 100,000 maternities (95% CI 0.73-3.04). There is little doubt that changes to and pressures on maternity services as a result of the Covid-19 pandemic also contributed to some of the other maternal deaths during this same period; relevant messages for care are highlighted in specific chapters and in the previously-released rapid reports (Knight, Bunch et al. 2020, Knight, Bunch et al. 2021a).

International comparison

For international comparison, data are presented in Table 2.6 to highlight the maternal mortality ratios estimated for the UK using routinely reported data. The rate estimate from routine sources of data is much lower (just over half) than the actual rates as identified through the UK CEMD, which uses multiple sources of death identification. This emphasises the importance of the additional case identification and checking undertaken by the MBRRACE-UK team to give an accurate maternal mortality estimate.

Table 2.6: Maternal mortality ratios* per 100,000 live births calculated based on deaths identified from routine sources of data, UK: 1985-2020

Triennium	No. of deaths identified through death certificates	Maternal mortality ratio	95% CI	Denominator number of live births
1985-87	174	7.67	6.61-8.90	2,268,766
1988-90	171	7.24	6.24-8.42	2,360,309
1991-93	150	6.48	5.52-7.60	2,315,204
1994-96	158	7.19	6.15-8.40	2,197,640
1997-99	128	6.03	5.70-7.17	2,123,614
2000-02	136	6.81	5.76-8.05	1,997,472
2003-05	149	7.05	6.00-8.27	2,114,004
2006-08	155	6.76	5.78-7.92	2,291,493
2009-11	134	5.57	4.67-6.60	2,405,251
2012-14	110	4.65	3.82-5.60	2,368,125
2015-17	95	4.10	3.32-5.01	2,317,363
2018-20	129	6.04	5.04-7.18	2,136,242

Source: Office for National Statistics, General Register Office for Scotland, Northern Ireland Statistics and Research Agency

*Note that, for the purposes of international comparison, this table reports the Maternal Mortality Ratio and not the rate as elsewhere in the report.

Women who died between six weeks and one year after the end of pregnancy

In the triennium 2018-20, 289 women died between six weeks and one year after the end of pregnancy, representing a mortality rate of 13.7 per 100,000 maternities (95% CI 12.2 – 15.4). There has been no change in the rate of late pregnancy-related deaths since the first MBRRACE-UK confidential enquiry report. Rolling rates of late deaths are shown in Figure 2.5 and causes of late death in Figure 2.6. Maternal suicides continue to be the leading cause of direct deaths occurring between six weeks and one year after the end of pregnancy and deaths from psychiatric causes as a whole account for 38% of maternal deaths during this period.

Figure 2.5: Pregnancy-associated maternal mortality rates six weeks to one year after the end of pregnancy, UK, 2009-2020

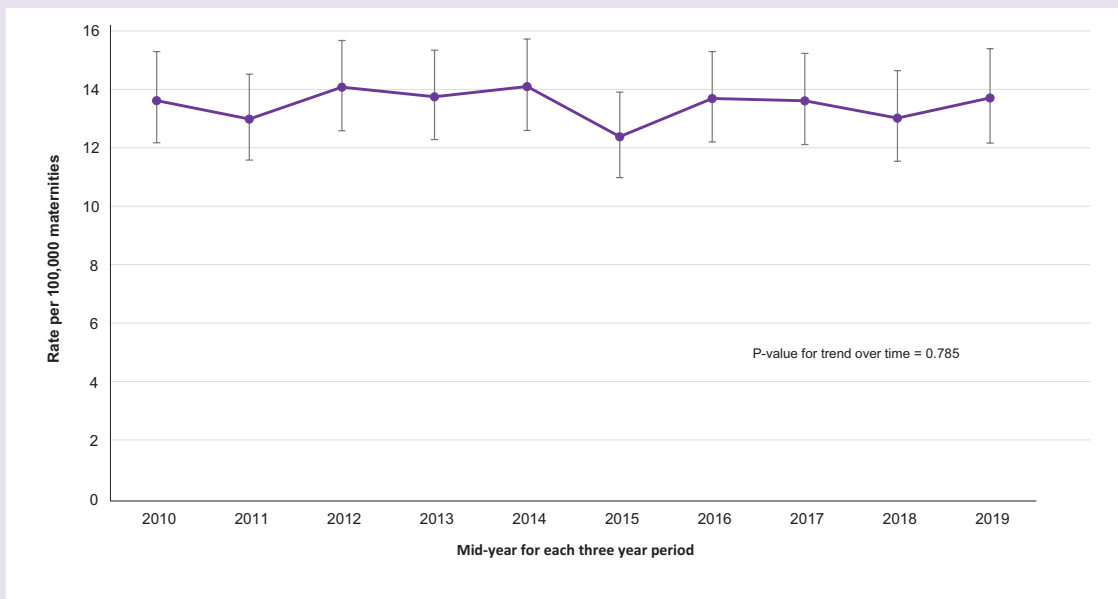
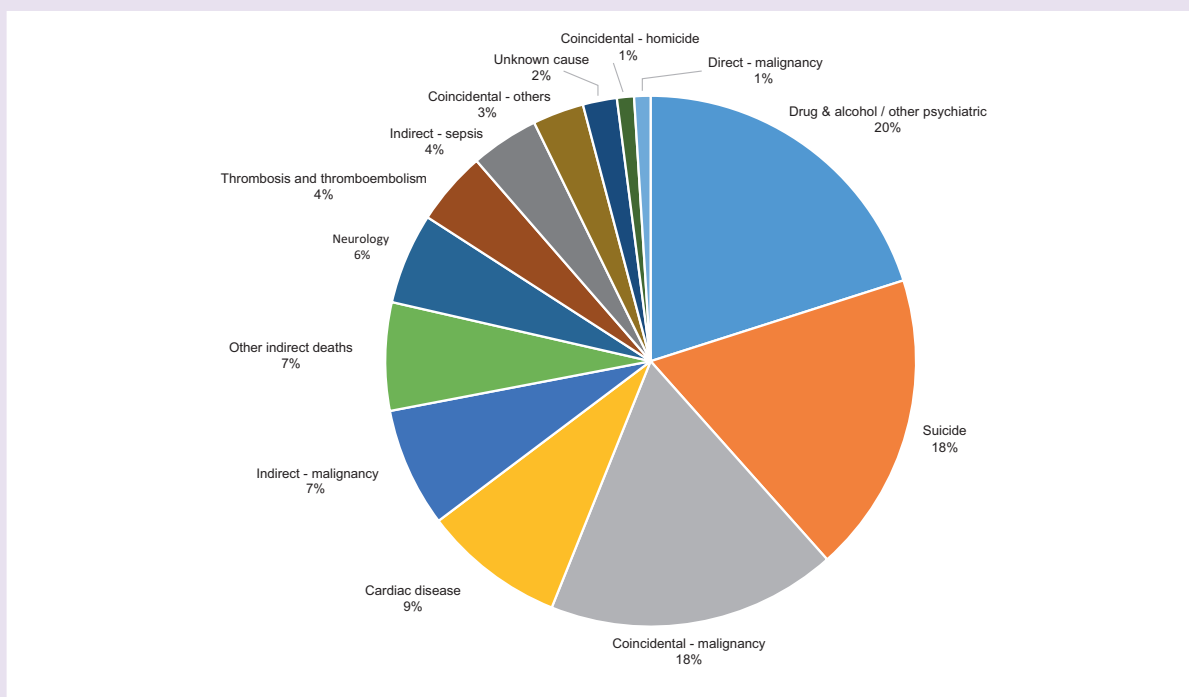


Figure 2.6: Causes of death amongst women who died between six weeks and one year after the end of pregnancy, UK 2018-20



2.3 The characteristics of women who died 2018-20

The women and babies

Of the 229 women who died from direct and indirect causes during or up to 42 days after the end of their pregnancy in 2018-20, 28% (64 women) were still pregnant at the time of their death and of these women 64% were ≤ 20 weeks' gestation (Table 2.7). Twenty three (10%) women had a pregnancy loss at ≤ 20 weeks' gestation. The remaining 142 women gave birth to a total of 142 infants, 115 (81%) survived, 27 died (24 babies were stillborn and 3 died in the neonatal period). The 229 women who died left behind a further 251 children, thus a total of 366 motherless children remain. The majority of the 142 women who gave birth did so in hospital (85%); 12% of women gave birth in an emergency department or an ambulance, and 4% at home (Table 2.8). In this triennium 91 (64%) of the women who died had a caesarean birth, 11% of these were perimortem as part of attempted resuscitation of the woman. A total of 10 babies were born by perimortem caesarean section of which 5 (50%) were born after 32 weeks of gestation. Two out of the 5 babies born after 32 weeks' gestation survived (2 were stillborn and 1 died in the neonatal period); all 5 babies delivered at 32 weeks or less were stillborn. Thus 2 (20%) of the total of 10 babies born by perimortem caesarean section survived, 7 (70%) were stillborn and 1 (10%) died in the neonatal period.

Table 2.7: Timing of maternal deaths in relation to pregnancy 2018-20

Time period of deaths in the pregnancy care pathway	Direct (n=109) Frequency (%)	Indirect (n=120) Frequency (%)	Total (n=229) Frequency (%)
Antenatal period			
≤ 20 weeks	19 (17)	22 (18)	41 (18)
> 20 weeks	7 (6)	16 (13)	23 (10)
Postnatal on day of delivery	22 (20)	20 (17)	42 (18)
Postnatal 1-41 days after delivery	61 (56)	62 (52)	123 (54)

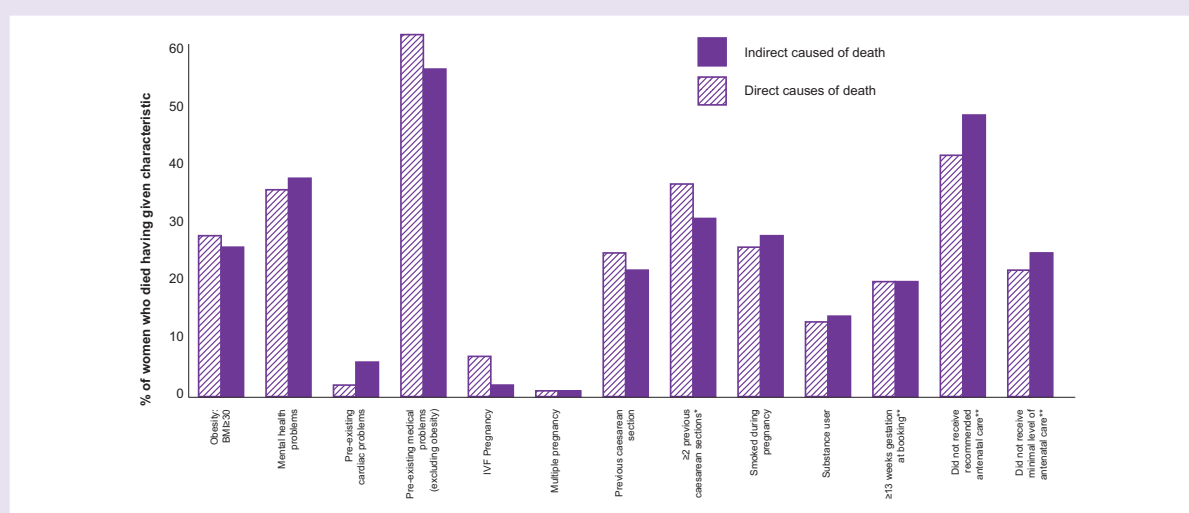
Table 2.8: Place of childbirth amongst women > 20 weeks' gestation who died after giving birth 2018-20

	Direct (n=71) Frequency (%)	Indirect (n=71) Frequency (%)	Total (n=142) Frequency (%)
Home	1 (1)	4 (6)	5 (4)
Hospital (except A&E)	65 (92)	55 (77)	120 (85)
Emergency Department or ambulance	5 (7)	12 (17)	17 (12)

Socio-demographic characteristics

The socio-demographic characteristics of women who died in 2018-20 are shown in Table 2.9 and Figure 2.7. Around a third of the women's records (28%) did not have information on whether they were subject to domestic abuse before or during pregnancy, this is similar to the proportion noted in last year's report but an improvement on the 53% reported in 2019. Nevertheless this remains a substantial proportion of women who were not asked about domestic abuse despite guidance that it is important to enquire about this at booking and throughout pregnancy.

Figure 2.7: Selected characteristics of women who died from direct or indirect causes 2018-20



*Amongst women who had a previous caesarean birth

**NICE recommended antenatal care: booked at 10 weeks or less and no antenatal visits missed. Minimum level of care: booked at less than 13 weeks and 3 or fewer antenatal visits missed.

Table 2.9: The socio-demographic characteristics of women who died 2018-20

Characteristics	Direct (n=109) Frequency (%)	Indirect (n=120) Frequency (%)	Total (n=229) Frequency (%)
Socio-demographic			
Age (years)			
<20	8 (7)	1 (1)	9 (4)
20 – 24	11 (10)	13 (11)	24 (10)
25 – 29	20 (18)	30 (25)	50 (22)
30 – 34	32 (29)	37 (31)	69 (30)
35 – 39	26 (24)	27 (23)	53 (23)
≥ 40	12 (11)	12 (10)	24 (10)
Parity			
0	43 (39)	49 (41)	92 (40)
1 to 2	46 (42)	52 (43)	98 (43)
≥3	19 (17)	18 (15)	37 (16)
Missing	1 (1)	1 (1)	2 (1)
UK citizen			
Yes	88 (81)	101 (84)	189 (83)
No	9 (8)	5 (4)	14 (6)
Missing	12 (11)	14 (12)	26 (11)
Ethnicity			
White European	73 (67)	79 (66)	152 (66)
Indian	7 (6)	6 (5)	13 (6)
Pakistani	0 (0)	7 (6)	7 (3)
Bangladeshi	3 (3)	5 (4)	8 (3)
Other Asian	4 (4)	2 (2)	6 (3)
Black Caribbean	3 (3)	6 (5)	9 (4)
Black African	5 (5)	8 (7)	13 (6)
Others/ Mixed	9 (8)	6 (5)	15 (7)
Missing	5 (5)	1 (1)	6 (3)
Woman's region of birth			
United Kingdom	68 (62)	86 (72)	154 (67)
Eastern Europe	4 (4)	3 (3)	7 (3)
Western Europe	3 (3)	1 (1)	4 (2)
Asia	12 (11)	13 (11)	25 (11)
Africa	6 (6)	10 (8)	16 (7)
Australia and North America	1 (1)	0 (0)	1 (<1)
Central & South America & Caribbean	2 (2)	0 (0)	2 (1)
Missing	13 (12)	7 (6)	20 (9)
Socioeconomic status (Index of Multiple Deprivation (IMD) of postcode of residence)			
First quintile (Least deprived)	9 (8)	10 (8)	19 (8)
Second quintile	13 (12)	11 (9)	24 (10)
Third quintile	16 (15)	12 (10)	28 (12)
Fourth quintile	21 (19)	24 (20)	45 (20)
Fifth quintile (Most deprived)	39 (36)	51 (43)	90 (39)
Missing	11 (10)	12 (10)	23 (10)
Socioeconomic status (Occupational classification)			
Employed (Either woman or partner)	75 (69)	79 (66)	154 (67)
Unemployed (Both)	19 (17)	17 (14)	36 (16)
Missing	15 (14)	24 (20)	39 (17)
Able to speak/understand English			
Yes	97 (89)	112 (93)	209 (91)
No	8 (7)	6 (5)	14 (6)
Missing	4 (4)	2 (2)	6 (3)
Living arrangements			
With partner	79 (72)	81 (68)	160 (70)
Living alone	9 (8)	14 (12)	23 (10)
With parents/extended family	10 (9)	11 (9)	21 (9)
Others	5 (5)	7 (6)	12 (5)
Missing	6 (6)	7 (6)	13 (6)
Domestic abuse (prior to pregnancy/ during pregnancy)			
Yes	12 (11)	15 (13)	27 (12)
No	66 (61)	73 (61)	139 (61)
Missing	31 (28)	32 (27)	63 (28)
History of abuse as a child			
Yes	10 (9)	4 (3)	14 (6)
No	53 (49)	64 (53)	117 (51)
Missing	46 (42)	52 (43)	98 (43)
Known to social services			
Yes	21 (19)	25 (21)	46 (20)
No	76 (70)	81 (68)	157 (69)
Missing	12 (11)	14 (12)	26 (11)

The rates of maternal mortality varied by age, socioeconomic status and ethnic background of the women, factors which are known to be independently associated with an increased risk of maternal death in the UK (Nair, Kurinczuk et al. 2015, Nair, Knight et al. 2016). Maternal mortality rates are higher amongst older women and those under 20, those living in the most deprived areas and amongst women from particular ethnic minority groups (Table 2.10). Women living in the most deprived areas continue to have the highest maternal mortality rates (Figure 2.8).

As noted in the 2016 report, we are no longer able to obtain denominator figures for specific ethnic groups, instead aggregate rates using larger ethnicity groupings are presented in Tables 2.10 and 2.11. The risk of maternal death in 2018-20 was statistically significantly over three and a half times higher among women from Black ethnic minority backgrounds compared with White women (RR 3.68; 95% CI 2.32 to 5.65); this is lower than the figure reported in the 2021 report and represents a non-significant reduction from the five-fold difference reported for 2015-17 (Figure 2.9). Women from Asian backgrounds also continued to be at higher risk than White women (RR 1.75, 95% CI 1.13 to 2.62), as were, to a lesser extent, women from mixed ethnic backgrounds (RR 1.32, 95% CI 0.35-3.47). Of note, of the 9 women who died from Covid-19, 5 were Asian and 3 were Black. In the comparison of relative risks between 2015-17 and 2018-20 the estimated ratios of relative risk (RRR) of maternal death in the different age, socioeconomic and ethnic groups did not show any statistically significant differences (Table 2.11).

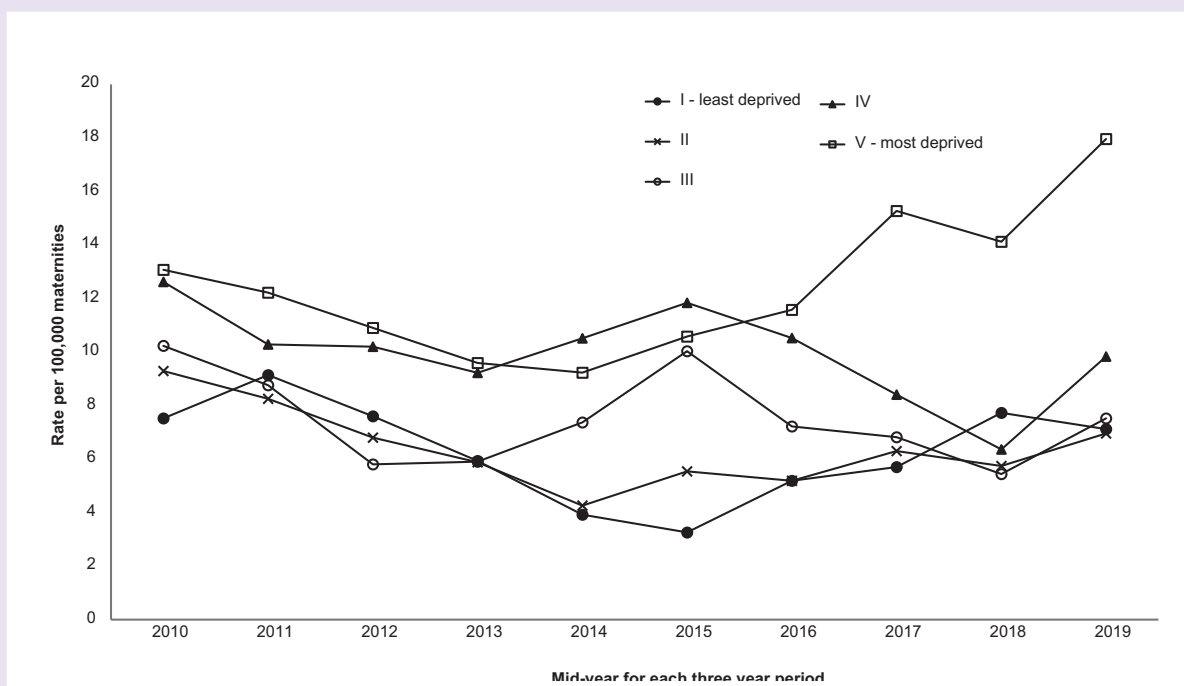
Table 2.10: Maternal mortality rates amongst different population groups 2018-20 (illustrated in figures 2.7 and 2.8)

	Total maternities 2018-20	Total deaths	Rate per 100,000 maternities	95% CI	Relative risk (RR)	95% CI
Age (years)						
<20	58,627	9	15.35	7.02 to 29.14	1.82	0.74 to 4.05
20-24	284,079	24	8.45	5.41 to 12.57	1 (Ref)	-
25-29	571,632	50	8.75	6.49 to 11.53	1.04	0.62 to 1.76
30-34	692,078	69	9.97	7.76 to 12.62	1.18	0.73 to 1.96
35-39	400,386	53	13.24	9.92 to 17.31	1.57	0.95 to 2.65
≥ 40	94,860	24	25.30	16.21 to 37.64	2.99	1.63 to 5.51
IMD Quintiles (England only)						
I (Least deprived/ highest 20%)	252,869	18	7.12	4.22 to 11.25	1 (Ref)	-
II	287,258	20	6.96	4.25 to 10.75	0.98	0.49 to 1.96
III	319,035	24	7.52	4.82 to 11.19	1.06	0.55 to 2.07
IV	376,393	37	9.83	6.92 to 13.55	1.38	0.77 to 2.58
V (Most deprived/ lowest 20%)	445,465	80	17.96	14.24 to 22.35	2.52	1.50 to 4.47
Ethnic group (England only)						
White (inc. not known)	1,386,873	128	9.23	7.70 to 10.97	1 (Ref)	-
Asian	186,086	30	16.12	10.88 to 23.01	1.75	1.13 to 2.62
Black	76,487	26	33.99	22.21 to 49.80	3.68	2.32 to 5.65
Chinese/ others	73,025	6	8.22	3.02 to 17.88	0.89	0.32 to 1.99
Mixed	32,782	4	12.20	3.32 to 31.24	1.32	0.35 to 3.47

Table 2.11: Comparison of the relative risk of maternal death among different population groups between 2015-17 and 2018-20 (illustrated in figures 2.8 and 2.9)

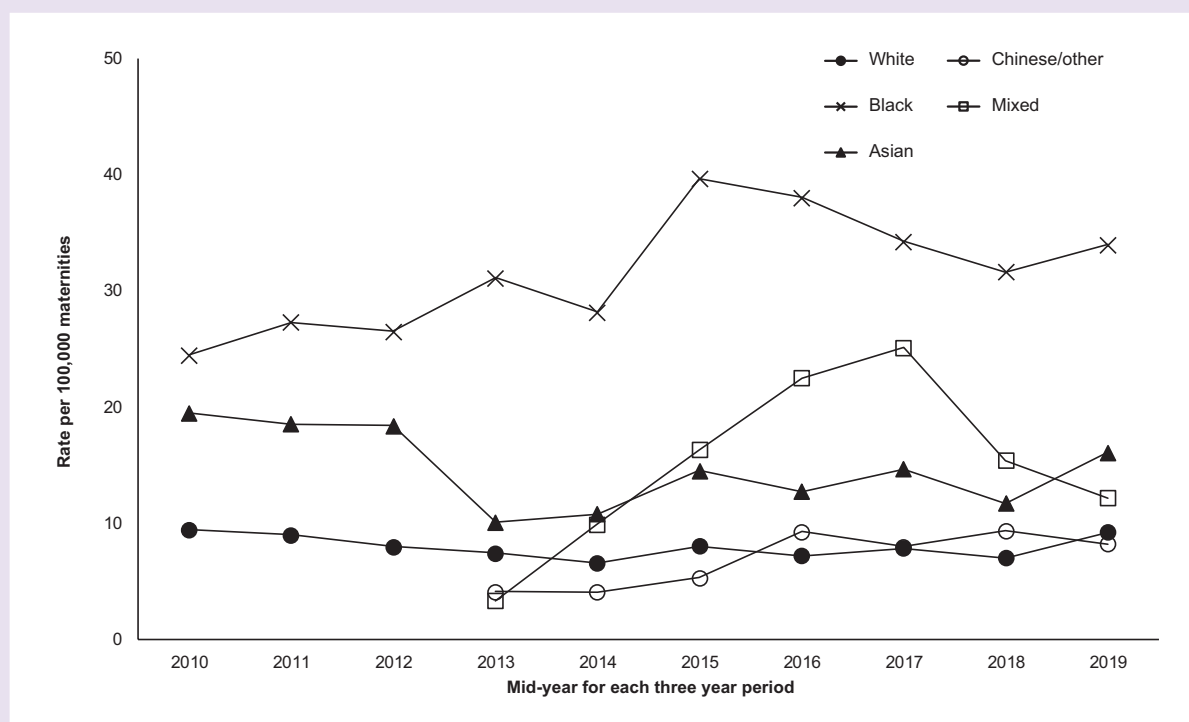
	2015-17		2018-20		Ratio of the relative risks (RRR) (comparing 2018-20 with 2015-17)	95% CI	P-value
	Relative risk (RR)	95% CI	Relative risk (RR)	95% C			
Age (years)							
<20	2.16	0.86 to 5.00	1.82	0.74 to 4.05	0.84	0.25 to 2.86	0.784
20–24	1 (Ref)	-	1 (Ref)	-	-	-	-
25–29	1.53	0.90 to 2.74	1.04	0.62 to 1.76	0.70	0.32 to 1.46	0.322
30–34	1.27	0.74 to 2.27	1.18	0.73 to 1.96	0.93	0.44 to 1.96	0.848
35–39	2.30	1.33 to 4.11	1.57	0.95 to 2.65	0.68	0.32 to 1.46	0.327
≥ 40	4.34	2.26 to 8.43	2.99	1.63 to 5.51	0.69	0.28 to 1.69	0.416
IMD Quintiles (England only)							
I (Least deprived/ highest 20%)	1 (Ref)	-	1 (Ref)	-	-	-	-
II	1.00	0.46 to 2.22	0.98	0.49 to 1.96	0.98	0.34 to 2.80	0.970
III	1.39	0.70 to 2.90	1.06	0.55 to 2.07	0.76	0.29 to 2.02	0.585
IV	2.03	1.09 to 4.01	1.38	0.77 to 2.58	0.68	0.28 to 1.65	0.395
V (Most deprived/ lowest 20%)	2.23	1.23 to 4.33	2.52	1.50 to 4.47	1.13	0.49 to 2.60	0.774
Ethnic group (England only)							
White (inc. not known)	1 (Ref)	-	1 (Ref)	-	-	-	-
Asian	1.77	1.10 to 2.74	1.75	1.13 to 2.62	0.99	0.53 to 1.84	0.972
Black	5.27	3.44 to 7.87	3.68	2.32 to 5.65	0.70	0.38 to 1.28	0.247
Chinese/ others	1.29	0.50 to 2.74	0.89	0.32 to 1.99	0.69	0.20 to 2.40	0.561
Mixed	3.12	1.22 to 6.64	1.32	0.35 to 3.47	0.42	0.10 to 1.76	0.237

Figure 2.8: Maternal mortality rates 2009-20 among women from different levels of socio economic deprivation in England*



*Data for England only due to availability of denominator data

Figure 2.9: Maternal mortality rates 2009-20 among women from different ethnic groups in England*



*Data for England only due to availability of denominator data

Just over a quarter of women who died in 2018-20 (26%) whose place of birth was known were born outside the UK; 24% of these women were known not to be UK citizens and citizenship was not recorded for a further 29%. Overall 6% of the women who died were not UK citizens although this may be an underestimate since citizenship was not recorded for 11%. Women who died who were born abroad and who were not UK citizens had arrived in the UK a median of 2 years before they died (range 6 months to 15 years). Women who died who were born abroad were from Asia (45%, mainly Bangladesh, India, and Pakistan) and Africa (29%, in particular Nigeria and Ghana), Eastern Europe (13%, mainly Romania) with the remainder (13%) from other parts of Europe, the Americas, Australasia and the Caribbean. Table 2.12 shows the rates of death amongst women born in selected countries with the highest number of deaths. Similar to the previous triennium, overall there was no statistically significant difference in maternal death rate between women born in the UK and those born outside the UK in 2018-20. However, women born in certain specific countries had a higher risk of death, statistically significantly higher in the case of women born in Bangladesh, compared to women born in the UK (Table 2.12). Of the 13 women who died who were not UK citizens and were born outside the UK, two were refugees/asylum seekers (15%), three were European Union citizens (23%) and eight (62%) had another or unknown status.

It is also of note that 20% of women who died were known to social services. This proportion is the same as reported for 2015-17 (20%) and well above the 12% reported in 2012-2014, highlighting further the vulnerability of many women who died.

Table 2.12: Maternal mortality rates according to mother's country of birth (selected countries) 2018-20

Woman's country of birth	Maternities 2018-20	Total Deaths	Rate per 100,000 maternities	95% CI	Relative risk (RR)	95% CI
UK	1,523,667*	154	10.11	8.57 to 11.84	1 (Ref)	-
Outside UK	578,162*	55	9.51	7.17 to 12.38	0.94	0.68 to 1.29
Specific countries						
<i>Bangladesh</i>	20,693‡	7	33.83	13.60 to 69.69	3.35	1.32 to 7.06
<i>India</i>	41,396‡	5	12.08	3.92 to 28.18	1.20	0.38 to 2.85
<i>Pakistan</i>	50,402‡	4	7.94	2.16 to 20.32	0.79	0.21 to 2.05
<i>Romania</i>	48,175	4	8.30	2.26 to 21.26	0.82	0.22 to 2.15
<i>Nigeria</i>	17,765‡	3	16.89	3.48 to 49.34	1.67	0.34 to 4.97
<i>Ghana</i>	8,698‡	3	34.49	7.11 to 100.76	3.41	0.70 to 10.16

*Estimates based on proportions of births to UK and non-UK born mothers applied to number of maternities

‡Estimates based on ratio of maternities to births applied to number of births recorded to mothers born in stated country

**Country of birth not recorded for 20 women who died

It has been increasingly noted in these enquiries that women at severe disadvantage appear to be over-represented amongst the women who die. Severe and multiple disadvantage amongst pregnant women has been defined in other work (Birthrights and Birth Companions 2019). Not all elements of this definition were available in MBRRACE data, but of the 535 women who died in the UK in 2018-20 during or up to one year after pregnancy, 61 (11%) were of women considered to be at severe and multiple disadvantage on the basis of the data available (Table 2.13). This is a significant increase on the proportions reported for 2017-19 and 2015-17 (2018-20 versus 2017-19 RR 1.58, 95% CI 1.04-2.41, p=0.024; 2018-20 versus 2015-17 RR 1.89, 95% CI 1.23-2.95, p=0.002). Note, however, that this change may be a reflection of increasing disadvantage, better recording of data or a combination of both. The main elements of multiple disadvantage were a mental health diagnosis (either current or in the past) (all women with multiple disadvantage), substance use (53/61 women with multiple disadvantage) and domestic abuse (56/61 women with multiple disadvantage). This must continue to be regarded as a minimum estimate, since these three factors remain amongst the most poorly recorded, with, for women who died in pregnancy or within 42 days of delivery, information missing about mental health diagnoses for 8%, on substance use for 8% and on domestic abuse for 28%. Such information is even more likely to be missing for women dying between six weeks and one year after pregnancy.

Table 2.13: Severe and multiple disadvantage among women who died 2018-20

	Direct (n=109) Frequency (%)	Indirect (n=120) Frequency (%)	Coincidental (n=18) Frequency (%)	Late Deaths (n=289) Frequency (%)	Total (n=536) Frequency (%)
Score* of <3	99 (91)	110 (92)	16 (89)	250 (87)	475 (89)
Score* of 3 or more	10 (9)	10 (8)	2 (11)	39 (13)	61 (11)

*Three or more of: substance abuse, domestic abuse, abuse in childhood, arrival in UK within last 5 years, refugee or asylum seeker, mental health diagnosis, female genital mutilation, and known learning difficulties

Medical and pregnancy-related characteristics

Studies have shown that 66% of the increased risk of maternal death in the UK could be attributed to medical comorbidities (Nair, Knight et al. 2016). Nearly two-thirds (60%) of the women who died in 2018-20 were known to have pre-existing medical problems (Table 2.14) and 37% were known to have pre-existing mental health problems. Of note for 8% of women who died in 2018-20 it was reported to be unknown whether they had previous or pre-existing mental health problems, this proportion is a small reduction on the 11% missing reported for the previous triennium. Over a quarter (27%) of the women who died in this triennium were obese (BMI \geq 30kg/m²) and a further 24% were overweight (Table 2.14). In this triennium, 10 women (4%) who died during or up to six weeks after pregnancy in the UK in 2018-20 had a pregnancy as a result of an assisted conception procedure (Table 2.15), this compares to 13 women (6%) in 2015-17.

The pregnancy-related characteristics of the women who died in 2018-20 are shown in Figure 2.7 and Table 2.15.

Table 2.14: Selected medical conditions and characteristics identified amongst women who died 2018-20 (illustrated in Figure 2.7)

Medical condition/characteristic	Direct (n=109) Frequency (%)	Indirect (n=120) Frequency (%)	Total (n=229) Frequency (%)
Body mass index (BMI) (kg/m ²)			
<18	2 (2)	2 (2)	4 (2)
18 – 24	40 (37)	47 (39)	87 (38)
25 – 29	24 (22)	31 (26)	55 (24)
\geq 30	31 (28)	31 (26)	62 (27)
Missing	12 (11)	9 (8)	21 (9)
Mental health problems or psychiatric disorders			
Yes	39 (36)	45 (38)	84 (37)
No	58 (53)	68 (57)	126 (55)
Missing	12 (11)	7 (6)	19 (8)
Pre-existing cardiac problems			
Yes	2 (2)	7 (6)	9 (4)
No	103 (95)	108 (90)	211 (92)
Missing	4 (4)	5 (4)	9 (4)
Any pre-existing medical problem (excluding obesity)			
Yes	69 (63)	68 (57)	137 (60)
No	36 (33)	47 (39)	83 (36)
Missing	4 (4)	5 (4)	9 (4)

Table 2.15: Pregnancy-related characteristics of the women who died 2018-20 (illustrated in Figure 2.7)

Medical condition/characteristic	Direct (n=109) Frequency (%)	Indirect (n=120) Frequency (%)	Total (n=229) Frequency (%)
Pregnancy known to be as a result of assisted reproductive techniques			
Yes	8 (7)	2 (2)	10 (4)
No	101 (93)	118 (98)	219 (96)
Multiple pregnancy			
Yes	1 (1)	1 (1)	2 (1)
No	108 (99)	119 (99)	227 (99)
Previous caesarean section			
Yes	27 (25)	26 (22)	53 (23)
No	79 (72)	90 (75)	169 (74)
Missing	3 (3)	4 (3)	7 (3)
Previous caesarean numbers (among women who had a previous caesarean section)			
1	17 (63)	18 (69)	35 (66)
≥2	10 (37)	8 (31)	18 (34)

Other characteristics of women who died

Inadequate utilisation of antenatal care services and substance misuse have been shown to be associated with increased risk of maternal death in the UK (Nair, Kurinczuk et al. 2015, Nair, Knight et al. 2016). The prevalence of substance misuse among women who died in 2018-20 did not differ from that noted in the previous reports (Table 2.16) and the proportion who received recommended levels of antenatal care still remains low. Fewer than half (44%) of women who received antenatal care, received the recommended level of care according to NICE antenatal care guidelines (booking at 10 weeks or less and no routine antenatal visits missed) (National Institute for Health and Care Excellence 2017).

Table 2.16: Other characteristics of women who died in 2018-20 (illustrated in Figure 2.7)

Characteristics	Direct (n=109) Frequency (%)	Indirect (n=120) Frequency (%)	Total (n=229) Frequency (%)
Smoking			
Smoker	28 (26)	33 (28)	61 (27)
Non-smoker	67 (61)	68 (57)	135 (59)
Missing	14 (13)	19 (16)	33 (14)
Substance user			
Yes	14 (13)	19 (16)	33 (14)
No	85 (78)	92 (77)	177 (77)
Missing	10 (9)	9 (8)	19 (8)
Received any antenatal care*			
Yes	88 (81)	101 (84)	189 (83)
No	21 (19)	19 (16)	40 (17)
Gestational age at booking (among women who received any antenatal care)			
≤10	50 (57)	61 (60)	111 (59)
11 – 12	13 (15)	17 (17)	30 (16)
>13	18 (20)	20 (20)	38 (20)
Missing	7 (8)	3 (3)	10 (5)
Received recommended antenatal care [†] (among women who received any antenatal care)			
Yes	42 (48)	42 (42)	84 (44)
No	37 (42)	49 (49)	86 (46)

Characteristics	Direct (n=109) Frequency (%)	Indirect (n=120) Frequency (%)	Total (n=229) Frequency (%)
Missing	9 (10)	10 (10)	19 (10)
Received a minimum level of antenatal care [†] (among women who received any antenatal care)			
Yes	59 (67)	65 (64)	124 (66)
No	19 (22)	25 (25)	44 (23)
Missing	10 (11)	11 (11)	21 (11)

*Includes 9 women who died in early pregnancy. [†]NICE recommended antenatal care: booked at 10 weeks or less and no antenatal visits missed. Minimum level of care: booked at less than 13 weeks and 3 or fewer antenatal visits missed.

Classification of quality of care

This section includes information on women who died between 2018 and 2020 and are included in the confidential enquiry chapters of this report (including women who died between six weeks and a year after the end of pregnancy and women from the Republic of Ireland), along with the 61 women admitted for diabetic ketoacidosis management during pregnancy who are included in the morbidity enquiry. Table 2.17 and Figure 2.10 shows the classification of care as agreed by the assessors for the 144 women who died and whose case notes were available with sufficient information for an in-depth review. Among the women who died, 22% were assessed to have received good care, but detailed assessment showed that for another 38% improvements in care may have made a difference to their outcome. Opportunities to improve care were identified amongst the great majority (90%) of women admitted to hospital for diabetic ketoacidosis management; in 38% was it thought that improvements may have made a difference to outcome, but of note, improvements to care which would have made no difference to outcome were identified in 52% (Table 2.17, Figure 2.11).

Table 2.17: Classification of care received by women who died and are included in the confidential enquiry chapters and for whom case notes were available for an in-depth review or women who had a diabetic ketoacidosis episode included in the morbidity enquiry, UK and Ireland (2018-20) (illustrated in Figures 2.10 and 2.11)

Classification of care received	Women who died (n=144)* Number (%)	Women who survived after DKA episode (n=61) Number (%)
Good care	32 (22)	6 (10)
Improvements to care which would have made no difference to outcome	57 (40)	32 (52)
Improvements to care which may have made a difference to outcome	55 (38)	23 (38)

*includes only women whose case notes were available with sufficient information for an in-depth review considered in chapters 4-6

Figure 2.10: Classification of care received by women who died and are included in the confidential enquiry chapters and for whom case notes were available for an in-depth review, UK and Ireland (2018-20)

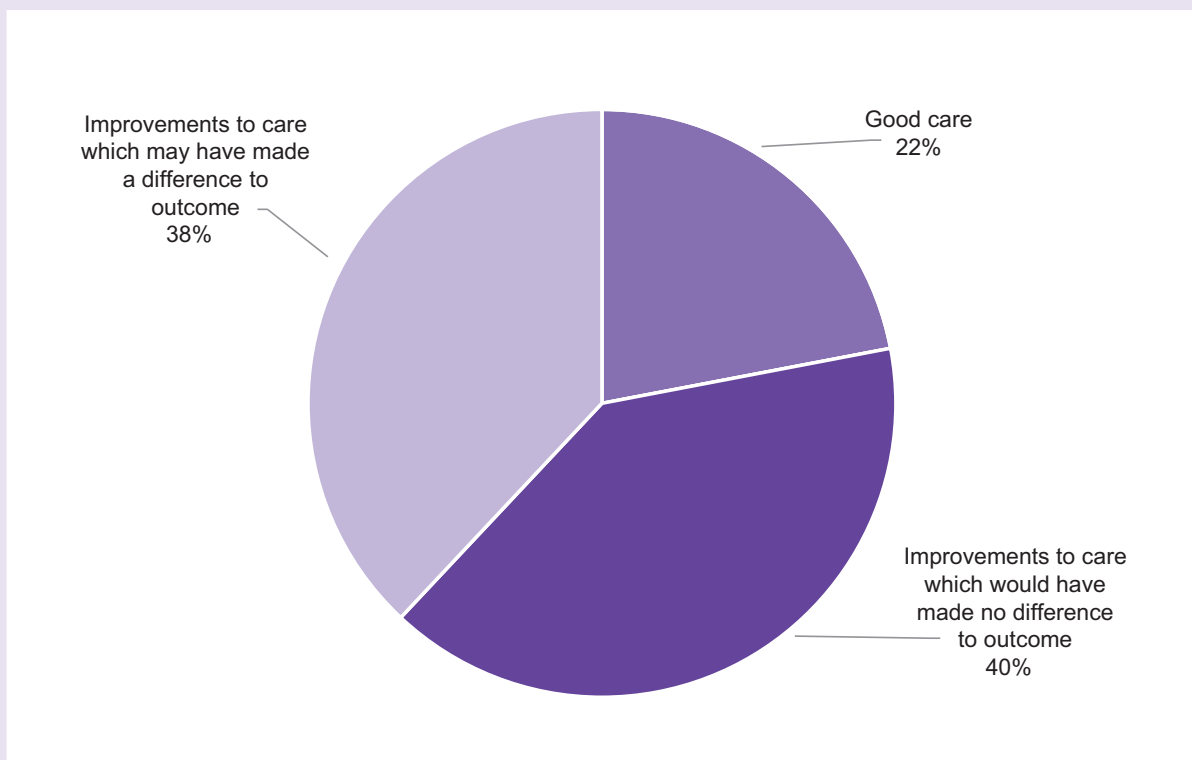
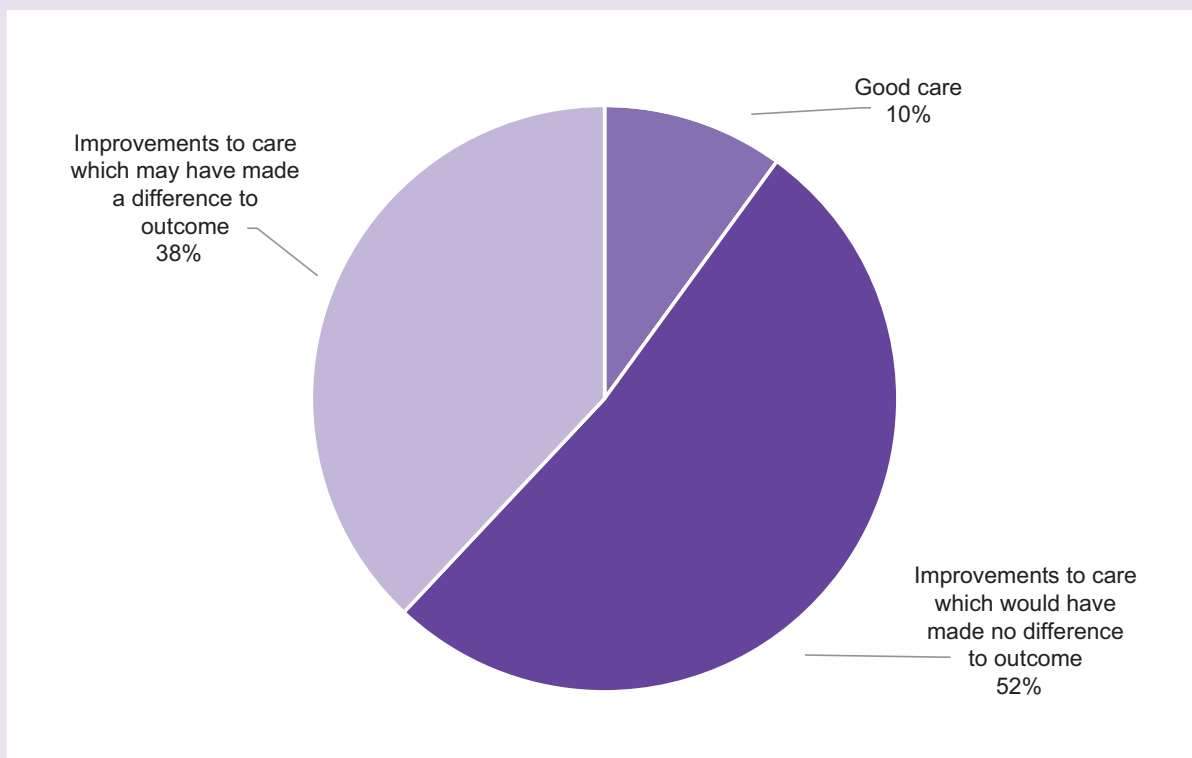


Figure 2.11: Classification of care received by women who had a diabetic ketoacidosis episode and are included in the morbidity enquiry, UK (2019-20)



Local clinicians' reports

The proportion of reports received from local clinicians of those requested for the confidential enquiry remains static at around 80% (Table 2.18). Local clinicians' reports are absolutely essential to allow MBRRACE-UK assessors to fully take account of any local system factors impacting on care, and we are particularly grateful at the effort and commitment to the enquiry this represents while clinicians have also been under pressure in the context of the pandemic. We urge clinicians to continue to return their reports in a timely manner.

Table 2.18: Percentages of local clinicians' reports received for women whose care was examined for the confidential enquiry chapters in this report

Specialty group	Percentage of reports requested that were received
Obstetricians	76
Anaesthetists	88
Midwives	85
Critical Care Clinicians	83
Emergency Medicine Specialists	81
GPs	85
Physicians	77
Psychiatrists	100
<i>Total</i>	83

Post-mortem examination

There was substantial variation in the proportion of women who had a post-mortem examination, according to the cause of death. For women with records available, overall a post-mortem examination was carried out in less than three quarters (68%) (Table 2.19). However, the figure was 86% for women who died from direct causes, 75% amongst women who died from indirect causes, 56% amongst women who died from coincidental causes and 59% amongst women who died between six weeks and one year after the end of pregnancy. As noted in previous reports, establishing the cause of women's death with a high quality autopsy is essential not only to improve future care, but to ensure any family counselling or testing is appropriate.

Table 2.19: Post-mortem information for maternal deaths in the UK 2018-20

Specialty group	Direct (n=109) Frequency (%)	Indirect (n=120) Frequency (%)	Coincidental (n=18) Frequency (%)	Late Deaths (n=289) Frequency (%)	Total (n=536) Frequency (%)
No Post Mortem	13 (12)	30 (25)	7 (39)	116 (40)	166 (31)
Post Mortem Completed	94 (86)	90 (75)	10 (56)	170 (59)	364 (68)
<i>Hospital</i>	7 (7)	10 (11)	0 (0)	16 (9)	33 (9)
<i>Coroner/Procurator Fiscal</i>	87 (93)	80 (89)	10 (100)	154 (91)	331 (91)
Records not available	2 (2)	0 (0)	1 (6)	3 (1)	6 (1)

3. Improving mental health care and care for women with multiple adversity

Andrew Cairns, Sara Kenyon, Roshni Patel, Kathryn Bunch and Marian Knight on behalf of the MBRRACE-UK mental health chapter-writing group

Chapter writing group members: Kathryn Bunch, Andrew Cairns, Fiona Cross-Sudworth, Hilde Engjom, Malcolm Griffiths, Fiona Hanrahan, Sara Kenyon, Marian Knight, Jenny Kurinczuk, Rachel Liebling, Becky MacGregor, Kim Morley, Roshni Patel, Felicity Platt, Judy Shakespeare

3.1 Key message

New recommendations

Assess women with persistent and severe insomnia carefully for signs of underlying mental illness. **ACTION: Health professionals.**

Recognise the importance of a trauma history in the assessment of risk. Involve specialist Perinatal Mental Health Teams where there is a history of significant involvement with secondary mental health services or significant risk, particularly if it is a first pregnancy. **ACTION: Service planners/commissioners, service managers, health professionals.**

Be alert to factors, such as cultural stigma or fear of child removal, which may influence the willingness of a woman or her family to disclose symptoms of mental illness, thoughts of self-harm or substance misuse. **ACTION: All health professionals, Professional education programmes.**

Access services such as Psychiatric Liaison, Crisis and Street Triage Teams should alert specialist Perinatal Mental Health Teams to any referrals of self-harm in pregnant or postpartum women that they have received to allow triage regarding the need for specialist follow-up. **ACTION: Service planners/commissioners, service managers, health professionals.**

Commissioning bodies should ensure that providers of specialist Perinatal Mental Health Teams have sufficient resource to advise, and in complex or high risk cases, be involved, in assessments when in normal working hours. **ACTION: Service planners/commissioners, service managers.**

Allow sufficient opportunity in electronic records systems for free text written comment rather than relying solely on 'tick boxes'. Where a woman has a history of mental health difficulties, make a brief (as a minimum) comment on mental health. **ACTION: Service planners/commissioners, service managers, health professionals.**

Existing recommendations requiring improved implementation

Women should receive continuity of mental health care. Where more than one mental health team is involved, there should be a clearly identified individual who co-ordinates care. (Saving Lives, Improving Mothers' Care 2018)

Consider previous history, pattern of symptom development and ongoing stressors when assessing immediate risk and management of women with mental health symptoms. Plans should address immediate, short-term and long-term risk (Saving Lives, Improving Mothers' Care 2021)

New expressions or acts of violent self-harm are 'red flag' symptoms and should always be taken seriously (Saving Lives, Improving Mothers' Care 2015).

There should be an expectation of early consultant psychiatrist involvement in the assessment and management of high-risk women and of women exhibiting sudden alterations in mental state in late pregnancy or the early puerperium (Saving Lives, Improving Mothers' Care 2015)

Establish triage processes to ensure that women with mental health concerns can be appropriately assessed, including face-to-face if necessary, and access specialist perinatal mental health services in the context of changes to the normal processes of care due to COVID-19. Perinatal mental health services are essential and face to face contact will be necessary in some circumstances. There is a clear role for involvement of the lead mental health obstetrician or midwife in triage and clinical review (Saving Lives, Improving Mothers' Care 2020)

Ensure specialist services have the capacity to assess and manage all women who require secondary care mental health services, and be able to adjust for the altered (generally lowered) thresholds for assessment in the perinatal period. This should not prevent shared management of women already engaged with another service, where that is in their best clinical interests (Saving Lives, Improving Mothers' Care 2021)

Ensure perinatal mental health services do not exclude patients on the basis of diagnosis, where they would ordinarily be seen by general adult mental health teams (Saving Lives, Improving Mothers' Care 2021)

Ask the woman about domestic abuse in a kind, sensitive manner at the first antenatal (booking) appointment, or at the earliest opportunity when she is alone. Ensure that there is an opportunity to have a private, one-to-one discussion (NICE Antenatal care guideline)

In women facing multiple adversity, changes in frequency or nature of presentations may reflect worsening mental state or the emergence of new complications (such as alcohol or substance misuse or interpersonal violence), and should prompt renewed attempts at engagement, diagnosis and care co-ordination. (Saving Lives, Improving Mothers' Care 2018)

Decisions on continuing, stopping or changing medication in pregnancy should be made only after careful review of the benefits and risks of doing so, to both mother and infant (Saving Lives, Improving Mothers' Care 2018)

If psychotropic medication has been discontinued in advance of, or during, pregnancy, ensure women have an early postnatal review to determine whether they should recommence medication, carried out either by the GP or mental health service depending on the level of pre-existing mental health care (Saving Lives, Improving Mothers' Care 2021)

When prescribing drugs for associated mental health conditions to people who self-harm, take into account the toxicity of the prescribed drugs in overdose. For example, when considering antidepressants, selective serotonin reuptake inhibitors (SSRIs) may be preferred because they are less toxic than other classes of antidepressants (NICE Clinical Guideline 133)

Loss of a child, either by miscarriage, stillbirth and neonatal death or by the child being taken into care increases vulnerability to mental illness for the mother and she should receive additional monitoring and support (Saving Lives, Improving Mothers' Care 2015)

Services should develop or adapt clear protocols and methods for sharing information, both within and between agencies, about people at risk of, experiencing, or perpetrating domestic violence and abuse. This is even more important with increasing use of electronic records to ensure all agencies involved in a woman's care are aware of her risk of domestic abuse. This would be further facilitated by support for the intra-operability of systems to support information sharing through electronic records (Saving Lives, Improving Mothers' Care 2020)

There is an urgent need to establish pathways for release of mental health records with the Chief Medical Officers and Departments of Health of Ireland and the four UK nations. Records for all women who die during or in the year after pregnancy who have had contact with mental health services should be released directly to MBRRACE-UK from risk/governance departments. ACTION: NHSE/I and equivalents in the devolved nations and Ireland (Saving Lives, Improving Mothers' Care 2018)

Ensure local incident review teams are multidisciplinary in composition and that investigations are carried out across organisational structures where indicated (Saving Lives, Improving Mothers' Care 2021)

Consider ways of ensuring that, for each woman who misuses substances:

- Progress is tracked through the relevant agencies involved in her care
- Notes from the different agencies involved in her care are combined into a single document
- There is a coordinated care plan (NICE Guideline CG110)

GPs should inform maternity services of any past psychiatric history and maternity services should ensure that the GP is made aware of a woman's pregnancy and enquire of the GP about past psychiatric history (Saving Lives, Improving Mothers' Care 2015)

Women with substance misuse are often more vulnerable and at greater risk of relapse in the postnatal period, even if they have shown improvement in pregnancy. Ensure they are reviewed for re-engagement in the early postpartum period where they have been involved with addictions services in the immediate preconception period or during pregnancy (Saving Lives, Improving Mothers' Care 2021)

3.2 Background

Mental ill health remains one of the leading causes of maternal death in pregnancy and the first postnatal year. Building on the rapid report published in 2020 looking at deaths in the early months of the COVID-19 pandemic, this chapter looks at those women who died during 2020 through suicide. These reviews have been expedited due to

the significantly increased maternal mortality rate due to mental health-related causes. As has been noted in other MBRRACE reports, multiple adversity remains a common theme amongst women dying through suicide, substance misuse, homicide and accidental death.

During the first year of the COVID-19 pandemic, very rapid changes were made to health services across the UK and Ireland. Mental health services were not immune from this and there was a broad spectrum of changes from teams where some staff were redeployed to other roles, through to teams that were able to operate relatively normally. Changes were seen across the pathway including both Perinatal Community Mental Health Teams, specialist inpatient Mother & Baby Units, referring universal services and emergency mental health teams such as Crisis Teams. Perhaps the most ubiquitous change was a reduction in face to face contact with patients and their families, and a sudden adoption of new (online) and not so new (telephone) means of assessment.

All of this occurred on a background of a recent huge expansion in specialist Perinatal Mental Health Services. Some of the specialist community teams had not existed two years prior to the outbreak of COVID-19. There was the potential for some newer members of staff being required to utilise novel means of contacting patients alongside changes in day to day contact with colleagues and senior team members due to other measures such as home working.

When reviewing the deaths, if specialist services were involved we were not able to know whether that service was new or well-established, due to the methodology behind this enquiry. Nor were we able to know how staffing had been affected by the pandemic or what processes had been introduced, such as use of telephone or online contact.

3.3 The women who died

This report includes 28 women who died by suicide during 2020 in the UK and Ireland during pregnancy or up to one year after the end of pregnancy, a rate of 3.84/100,000 maternities (95% CI 2.55-5.55). This compares with a rate of 2.64/100,000 maternities in 2017-19 (RR 1.46, 95% CI 0.90-2.23, p=0.106). The women who died by suicide had a median age of 30 (IQR 24-33), the majority (86%) were from white ethnic groups and were UK or Irish citizens (82%).

Noting that pregnancy is usually considered a protective factor for death by suicide, there has been a statistically significant increase in the rate of suicide during pregnancy and up to six weeks after pregnancy in the UK, comparing 2017-19 with 2020. 10 women died out of 2,173,810 women giving birth in 2017-19 (0.46 per 100,000) compared with 10 out of 674,377 in 2020 (1.48 per 100,000) (RR 3.22, 95% CI 1.20-8.63, p=0.012).

This increase contrasts with the general population data from the National Confidential Enquiry into Suicide and Safety in Mental Health which showed no significant increase in female suicides in 2020 compared with 2019 (Appleby, Richards et al. 2021). Office for National Statistics data for deaths by suicide in 2020 in England and Wales showed a rate of 4.9/100,000 in the general female population (a level which has been broadly static for 20 years) and females aged 10 to 24 years had the lowest age-specific suicide mortality rate (2.5 deaths per 100,000 females).

Of particular concern is the further increase in teenage suicides, with 5 deaths amongst 18,514 women giving birth in the UK and Ireland, giving a rate of 27/100,000. This is consistent with the increase in teenage suicides first reported in the 2017-19 report (11/100,000). Both findings are significantly higher than the previous 2014-16 report (2.5/100,000) which itself was in line with the rate in the general female population of that age group, thus the increase in rate pre-dates the COVID-19 pandemic. All the teenagers who died had Children's Social Services involved with their own children, their children were in care and the women had complex problems involving mental health, substance misuse and domestic abuse.

This report also includes the deaths of 27 women who died by as a result of substance misuse and other psychiatric causes during 2020. This gives a rate of 3.70/100,000 maternities (95% CI 2.44-5.38). This compares with a rate of 2.47/100,000 maternities in 2017-19.

In contrast to the 2017-19 report, there were higher rates of documented domestic abuse (33% vs 18%) among women who died by suicide (Table 3.1). This was despite their being no change in the proportion of women with this information missing. The same was true of women who died due to substance misuse, where the proportion for 2018 was 36%, 2019 was 43% and in 2020 was 70%.

Documentary evidence of social services involvement continued to climb with involvement in 43% vs 37% of suicides in 2017-19, and 85% vs 66% of substance misuse deaths in 2017-19. The reasons for this are unclear but it is possible that they may relate to greater flagging of concerns with social care following a number of high-profile national serious incidents of child neglect and death.

27% of women who died through suicide booked after 13 weeks gestation compared with 13% in 2017-19. From the records reviewed it is unclear why more women booked late but it is possible that the circumstances of the COVID pandemic, such as encouragement to stay at home or changes to how health professionals were working, might have affected this. There was an increase in the proportion of women dying through substance misuse who did not receive the recommended level of antenatal care, increasing from 60% in 2017-19 to 77% in 2020.

Table 3.1: Socio-demographic characteristics of women who died by suicide or from substance misuse, UK and Ireland 2020

Characteristics	Suicide (n=28) Frequency (%)	Substance misuse (n=27) Frequency (%)
Socio-demographic		
Age at delivery (years)		
<20	5 (18)	1 (4)
20 – 24	3 (11)	6 (22)
25 – 29	6 (21)	5 (19)
30 – 34	10 (36)	7 (26)
35 – 39	2 (7)	7 (26)
≥ 40	2 (7)	1 (4)
Parity		
0	1 (4)	1 (4)
1 to 2	14 (50)	20 (74)
≥3	3 (11)	2 (7)
Missing	10 (36)	4 (15)
UK or RoI citizen		
Yes	23 (82)	25 (93)
No	1 (4)	1 (4)
Missing	4 (14)	1 (4)
Ethnicity		
White incl. missing	24 (86)	26 (96)
Other ethnicity	4 (14)	1 (4)
Socioeconomic status (Index of Multiple Deprivation (IMD) of postcode of residence)		
First quintile (Least deprived)	3 (11)	0 (0)
Second quintile	4 (14)	3 (11)
Third quintile	6 (21)	1 (4)
Fourth quintile	4 (14)	7 (26)
Fifth quintile (Most deprived)	5 (18)	13 (48)
Missing	6 (21)	3 (11)
Domestic abuse (prior to pregnancy/ during pregnancy)		
Yes	9 (32)	19 (70)
No	10 (36)	5 (19)
Missing	9 (32)	3 (11)
History of abuse as a child		
Yes	5 (18)	6 (22)
No	8 (29)	4 (15)
Missing	15 (54)	17 (63)
Known to social services		
Yes	12 (43)	23 (85)
No	11 (39)	4 (15)
Missing	5 (18)	0 (0)
Received any antenatal care		
Yes	22 (79)	26 (96)
No	4 (14)	1 (4)
Not known	2 (7)	0 (0)
Gestational age at booking (among women who received any antenatal care)		
≤10	12 (55)	11 (42)
11 – 12	2 (9)	5 (19)
≥13	6 (27)	7 (27)
Missing	2 (9)	3 (12)
Received recommended antenatal care† (among women who received any antenatal care)		
Yes	11 (50)	3 (12)
No	10 (45)	20 (77)
Missing	1 (5)	3 (12)
Received a minimum level of antenatal care† (among women who received any antenatal care)		
Yes	14 (64)	11 (42)
No	6 (27)	12 (46)
Missing	2 (9)	3 (12)

†NICE recommended antenatal care: booked at 10 weeks or less and no antenatal visits missed. Minimum level of care: booked at less than 13 weeks and 3 or fewer antenatal visits missed.

Pregnancy or postnatal loss

Previous reports have found high rates of loss events (termination, miscarriage, stillbirth, neonatal loss, child removal) in both those women dying by suicide and those dying in relation to substance misuse. In 2020 there were fewer associated loss events with 79% of women dying by suicide having had no loss vs 63% in 2017-19 (Table 3.2). The figures for deaths due to substance misuse showed an increase from 57% having a loss event in 2017-19 to 74% in 2020. This increase was primarily due to a relative increase in child removals.

Table 3.2: Pregnancy or postnatal loss or threatened loss amongst women who died by suicide or substance misuse, UK and Ireland 2020

Type of loss	Suicide (n=28) Number of women (%)	Substance misuse (n=27) Number of women (%)
Pregnancy loss	0 (0)	2 (7)
Neonatal death	1 (4)	1 (4)
Post-termination of pregnancy	2 (7)	1 (4)
Infant removed into care or care of relatives and/or ongoing social services proceedings	3 (11)	16 (59)
No known loss events	22 (79)	7 (26)

Mode of suicide

This review found no real change to the mode of suicide, with hanging remaining the most common mode of death, and overdose and falls from height the second most frequent methods. Other than an increase in the proportion of overdoses, these proportions have remained static for more than 20 years, with hanging the most common and over 80% of suicides being violent.

Over the same 20 years, the percentage of deaths by hanging in the general female population who die by suicide have almost doubled to 46% in 2019 and poisonings have fallen by around one third to 32% (Office for National Statistics 2020). As such the proportion of violent deaths in women of all age groups has been increasing towards the proportions seen in this Enquiry. However, a recent review of data from 2018-20 (Office for National Statistics 2021) also showed that violent suicides were much more common in women of reproductive age, with hangings representing 78% of deaths in females aged 10-14, falling to 59% in the 44-49 age group. That said, the same data showed higher proportions of poisonings and fewer deaths through jumping from heights or in front of moving objects such as trains. As such it still appears that violent deaths are more common in the perinatal period.

Table 3.3: Mode of death by suicide, UK and Ireland 2020

Mode of death	Number of women (%) (n=25*)
Hanging	13 (52)
Overdose	4 (16)
Fall from height	4 (16)
Traffic/train	3 (12)
Lacerations	1 (4)

*For 3 women the mode of suicide could not be ascertained

Timing of death

During 2020, the suicide deaths occurred both antenatally and postnatally, with the majority postnatally (Figure 3.1). Deaths from substance misuse and other psychiatric causes were predominantly post-pregnancy (Figure 3.2).

Figure 3.1: Timing of death by suicide during pregnancy or the post-pregnancy year, 2020

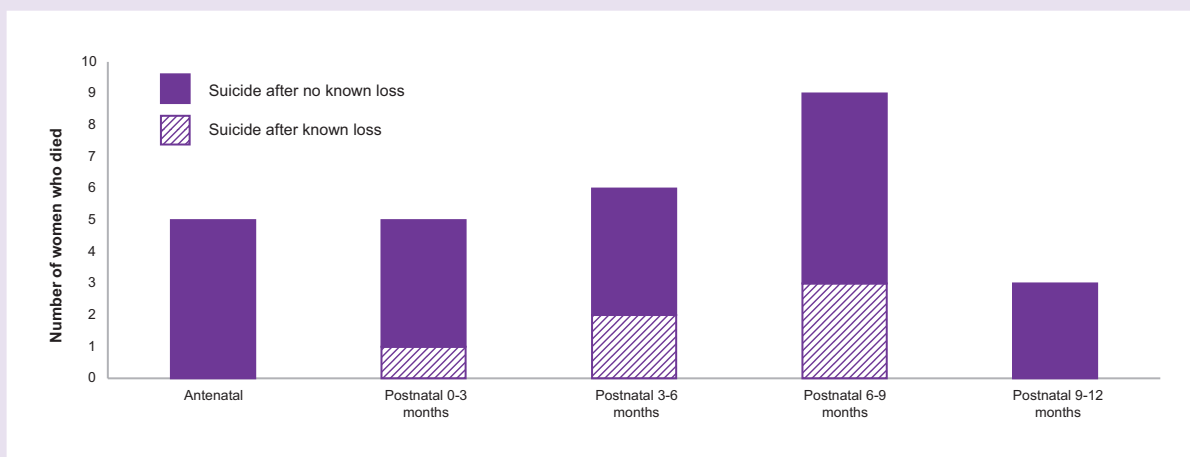
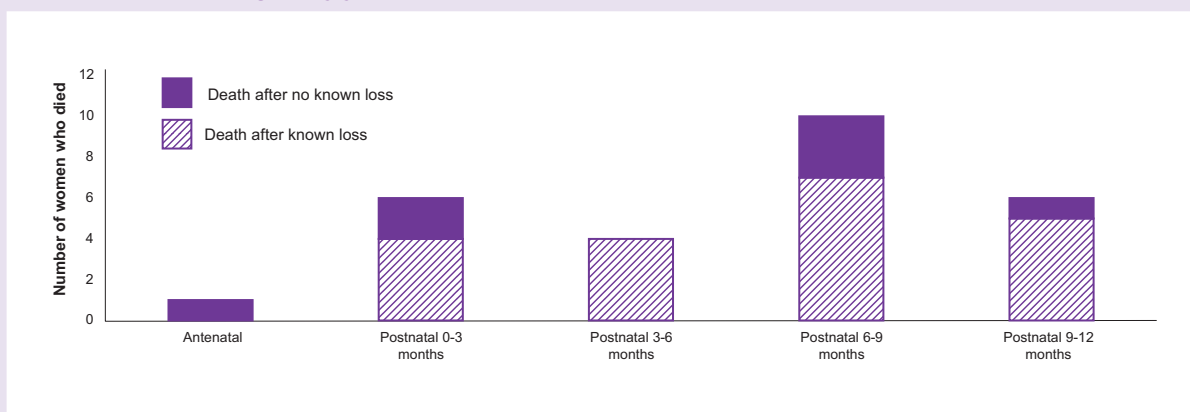


Figure 3.2: Timing of death from substance misuse or other psychiatric causes during pregnancy or the post-pregnancy year, 2020



Mental health diagnoses

In contrast to previous years, very few women who died by suicide had formal, clearly diagnosed mental health diagnoses. Four women had been given a diagnosis of emotionally unstable personality disorder. One had a diagnosis of anxiety and depression made during the index pregnancy by her GP. On review of the other women's records, it seems likely that two had undiagnosed severe depressive illnesses, one of whom had a red flag symptom of thoughts of maternal incompetence.

Involvement of services

It does not appear that any of the women who died through suicide had been admitted to a Mother and Baby Unit (Table 3.4). It is unclear whether this was related to pandemic-related changes to services. In one instance this was not felt appropriate, although the woman requested admission, in another the woman herself declined admission. In a further instance, Mother and Baby Unit admission was not pursued because of concerns about the management of a co-morbid physical health problem, as there were concerns about access to out-of-hours medical cover. Two women were admitted to adult inpatient units prior to their death in the community. Whereas in the previous report for 2017-19 women were cared for across a range of different mental health services, during 2020 almost one third had some form of contact with a specialist Perinatal Mental Health Team. One woman was referred to a generic Adult Mental Health Team and it was unclear why a specialist service had not been offered. One younger woman was under the care of a Child and Adolescent Mental Health Service. The proportion known only to universal services was broadly similar to previous reports.

Table 3.4: Highest level of care for women who died by suicide, UK and Ireland, 2020

Level of care received	Number of women (%) (n=28)
Mother and Baby Unit	0 (0)
Adult inpatient	2 (7)
Community perinatal mental health team / perinatal mental health day service	8 (29)
Adult community mental health team	1 (4)
Crisis / home treatment / liaison team	1 (4)
Other psychiatry	1 (4)
Addictions	0 (0)
Specialist mental health midwife / obstetrician	1 (4)
GP / maternity professional / health visitor	7 (25)
Unascertained	7 (25)

Accidental deaths and homicides

Sixteen women died from accidental causes in the UK and Ireland between 2018 and 2020, and messages from their care are also included in this chapter. Messages for care identified from the deaths of women who were murdered were included in the 2020 MBRRACE-UK Rapid Report on covid-related deaths (Knight, Bunch et al. 2020).

3.4 Overview of care and new lessons to be learned

Multiple adversity

At least half of the women who died by suicide and the majority of women who died from substance misuse had multiple adversity. A history of childhood and/or adult trauma were very frequent. Many of the younger women who died were care leavers. Presentations could be complex with mental illness, substance misuse and physical health symptoms, such as chronic pain. There were several instances where services did not become involved soon enough during pregnancy. Earlier involvement may have given more time to develop a therapeutic professional relationship. There seemed to be a general lack of consideration of the potential interaction between mental and physical symptoms, such as the influence of mental state on chronic pain and seizure-like activity. In one instance, a woman had apparent poor control of epilepsy during pregnancy in association with low mood, and a question as to whether these represented non-epileptic attacks.

As has been noted in some previous reports, on occasion specialist Perinatal Mental Health Teams declined to become involved with women who had a complex history with previous secondary mental health involvement, despite evidence suggesting that the woman might struggle with the adjustment to parenthood, with potential for an associated deterioration in mental state and increase in risk of self-harm or other risky behaviour.

A multiparous teenager had a miscarriage before her death. She had a history of child abuse and previous involvement with Child and Adolescent Mental Health Services. She had a history of substance misuse and domestic violence. A diagnosis of Bipolar Affective Disorder had been raised although assessors considered this unlikely. The Perinatal Mental Health Team declined a referral prior to her death by suicide.

Women may struggle to engage for a variety of reasons including their attachment style and fear of child removal. Mental Health services are not a replacement for Social Care support and intervention but the women whose deaths were reviewed were typically of a complexity and risk that required secondary care intervention, be it mental health teams, addictions services or both. Even when women are unable to engage for whatever reason, Perinatal Mental Health Teams can have a role in providing advice and scaffolding to both universal services and social care in understanding potential patterns of deterioration, risk (such as risk of deterioration related to child removal) and how to access services in a crisis.

Recognise the importance of a trauma history in the assessment of risk. Involve specialist Perinatal Mental Health Teams where there is a history of significant involvement with secondary mental health services or significant risk, particularly if it is a first pregnancy. N

Ensure specialist services have the capacity to assess and manage all women who require secondary care mental health services, and be able to adjust for the altered (generally lowered) thresholds for assessment in the perinatal period. This should not prevent shared management of women already engaged with another service, where that is in their best clinical interests (Saving Lives, Improving Mothers' Care 2021) (Knight, Bunch et al. 2021b)

Ensure perinatal mental health services do not exclude patients on the basis of diagnosis, where they would ordinarily be seen by general adult mental health teams (Saving Lives, Improving Mothers' Care 2021) (Knight, Bunch et al. 2021b)

A woman with a complex history of abuse, self-harm and substance misuse had requested a termination but as she was in the second trimester she was required to travel outside her local area to access this. She missed her appointment and died two weeks later by hanging.

This woman reflects similar findings in Enquiry reports some years ago where there were concerns that some women, who were already at higher risk of unplanned pregnancy and fears for child removal, struggled to make the journeys required to attend for a planned termination. It also reinforces the importance of ensuring regular discussions about family planning and offering of long-acting contraception where this is supporting the woman's choice.

Prescribing issues - propranolol

A woman died following a propranolol overdose. This has been seen in previous reports (Knight, Bunch et al. 2018) and it is not clear that clinicians considered the risks in overdose. The woman had a complex history of childhood adversity, self-harm, domestic violence and substance misuse and was presumed to have been receiving the propranolol for anxiety. This is not consistent with NICE Guidelines for the management of anxiety, as the evidence for its use largely relates to social and performance anxiety (Baldwin, Anderson et al. 2014, National Institute for Health and Care Excellence 2020). Given the complexity of this woman's needs, its efficacy would have been uncertain and at the very least should have been reviewed, if used at all, given the risk of overdose. Where prescribing for anxiety is required, evidence based treatments such as SSRIs which are safer in overdose should be preferred.

When prescribing drugs for associated mental health conditions to people who self-harm, take into account the toxicity of the prescribed drugs in overdose. For example, when considering antidepressants, selective serotonin reuptake inhibitors (SSRIs) may be preferred because they are less toxic than other classes of antidepressants.

(NICE Clinical Guideline 113) (National Institute for Health and Care Excellence 2020b)

Violent Suicide

As has been well established across many years, the commonest means of suicide remain violent methods. Thoughts of violent suicide have been recognised as a 'red flag' by the Enquiry since 2015. During this one year 13 women died by hanging, three by jumping in front of a train and four by jumping from heights. This makes up over two thirds of all deaths. Violent suicide is an indicator of clear intent and underlying significant mental disorder. Any expression of violent suicidal thoughts in pregnancy or the postpartum period should be taken seriously, and mental health services should have a low threshold for initial and ongoing assessment.

New expressions or acts of violent self-harm are 'red flag' symptoms and should always be taken seriously (Saving Lives, Improving Mothers' Care 2015).

There was little documentary evidence that clinicians involved in these women's care were aware of this association. Indeed, one woman who died by hanging had presented to the Emergency Department the previous day with evidence of having used a ligature to attempt to harm herself. In another instance, a woman with a red flag of new and persistent expressions of incompetency as a mother, who also had a maternal family history of severe mental illness, jumped to her death.

Access services such as Psychiatric Liaison, Crisis and Street Triage Teams should alert specialist Perinatal Mental Health Teams to any referrals of self-harm in pregnant or postpartum women that they have received to allow triage regarding the need for specialist follow-up. N

Involvement of Multiple Teams

Given the nature of modern mental health services, it is not surprising that in a number of instances there were multiple mental health teams involved in a woman's care. Consistent with findings in previous reports, a lack of knowledge of perinatal mental health was identified in serious incident reviews. Assessment of complex or seriously unwell women was only undertaken by junior clinicians in all women for whom records were available for review, but note that the lack of availability of mental health records may mean that consultant psychiatrist review took place but was not documented in emergency department or maternity records.

Liaison, crisis and home treatment staff should have specific training, at induction and continuing professional development, in understanding the distinctive features and risks of perinatal mental illness if they are to provide emergency and out-of-hours care for pregnant and postnatal women. Formal links should be made with local specialist perinatal mental health services to facilitate training.

Women should receive continuity of mental health care. Where more than one mental health team is involved, there should be a clearly identified individual who co-ordinates care.

Saving Lives, Improving Mothers' Care 2018 (Knight et al. 2018)

Reviewers considered that capacity of Perinatal Mental Health Teams to be involved with urgent assessment in working hours would have been beneficial. Accepting that referral numbers are increasing with service expansion in all four UK nations and the Republic of Ireland, such capacity would need to be developed with commissioners/health boards.

Commissioning bodies should ensure that providers of specialist Perinatal Mental Health Teams have sufficient resource to advise, and in complex or high risk cases, be involved, in assessments when in normal working hours. N

A new finding was difficulties for women transferring from Child and Adolescent Mental Health Teams to Adult Community Mental Health Teams. Difficulties during this transition have been recognised elsewhere (Goselink, Olsson et al. 2022), particularly the differing approaches to engagement. In some areas of paediatrics joint clinics are held to manage the transition from child to adult services. Some paediatric clinics (such as Epilepsy) also offer pre-pregnancy advice to women preparing for transition to adult services. Such approaches should be considered in mental health.

Changes to method of contact

In response to concerns about face-to-face contact, changes to communication occurred rapidly during the first year of the Covid pandemic. These changes were also reflected in the care of the women who died. Whilst some services did manage to maintain face-to-face contact, many were using telephone or video forms of communication. It was unclear to reviewers what the policy of the provider organisation was in regards to telephone or virtual contact in most instances. The initial assessment of one woman with severe depression took place at the fourth attempt by telephone. In another instance, a woman who died shortly afterwards by hanging had her assessment by the specialist Perinatal Mental Health Team also by telephone.

Establish triage processes to ensure that women with mental health concerns can be appropriately assessed, including face-to-face if necessary, and access specialist perinatal mental health services in the context of changes to the normal processes of care due to COVID-19. Perinatal mental health services are essential and face to face contact will be necessary in some circumstances. There is a clear role for involvement of the lead mental health obstetrician or midwife in triage and clinical review (Saving Lives, Improving Mothers' Care 2020 (Knight et al. 2020).

Sleep and Stigma

Several women had unusually severe insomnia, despite medical intervention to address this.

A non-English speaking woman contacted her health visitor at three months postpartum concerned about her baby. She herself had not slept for over a week. She was directed to the Emergency Department where the psychiatric liaison team did not identify any low mood using a telephone interpreter. She was not referred to a specialist Perinatal Mental Health Team. She was commenced on an antidepressant but did not continue it as she was breastfeeding. A week later her health visitor referred her to the Perinatal Mental Health Team. She was called by a member of the specialist team within the week after referral, who offered a talking therapy which she declined. She was also referred again to the specialist team who suggested she should be advised to attend the emergency department but did not attempt to coordinate an urgent assessment. She died by jumping from a height three days later.

Sleep disturbance is very common in relation to mental illness and a broader range of psychological difficulties. However, in these women the severity of insomnia was very marked and persisted despite the use of hypnotic medication. Severe sleep disturbance should lead clinicians to consider further assessment for underlying severe mental illness. Give consideration to a longitudinal assessment, particularly where a woman's insomnia is not responding to medication.

Assess women with persistent and severe insomnia carefully for signs of underlying mental illness N

The women described in the vignette above also illustrated some concerns that stigma around mental health, which may be relatively more prevalent in some cultures compared to others, may have influenced the willingness of women or their families to be open about mental health concerns. This has been recognised in previous reports. Likewise, it has also been evident that concern about the involvement of social services, or the potential removal of a child, has also been a factor influencing openness about mental health or ongoing substance misuse difficulties.

Be alert to factors, such as cultural stigma or fear of child removal, which may influence the willingness of a woman or her family to disclose symptoms of mental illness, thoughts of self-harm or substance misuse. N

Psychosis and mood disorders

In keeping with the general trend in recent Enquiry reports, there is a relative absence of women suffering from psychosis amongst those who died and fewer women with severe depressive illness which had been a feature in the reports in the first decade of this century. The methodology of this Enquiry does not allow us to understand the reasons for this apparent change. It is possible that there is greater awareness of the risks associated with these conditions, or the importance of continuing medication in pregnancy, which has led to fewer adverse outcomes. It is also possible that the greater awareness of the importance of trauma has led to improved enquiry and documentation of complex personal histories that has led us to take a differing view of some women presenting with low mood.

Concerns about medication

A number of women were worried about commencing or continuing medication. In the vignette above, the woman was worried about taking medication as her baby was breastfeeding. Evidence of good practice was seen, for example, a woman with an IVF pregnancy had a supportive GP who discussed in a balanced manner the use of antidepressants in pregnancy, in line with NICE guidance.

Decisions on continuing, stopping or changing medication in pregnancy should be made only after careful review of the benefits and risks of doing so, to both mother and infant.

If psychotropic medication has been discontinued in advance of, or during, pregnancy, ensure women have an early postnatal review to determine whether they should recommence medication, carried out either by the GP or mental health service depending on the level of pre-existing mental health care.

Saving Lives, Improving Mothers' Care 2018 (Knight et al. 2018)

Use of electronic records

Over the past decade, records shared with the Enquiry reflect the general transition towards electronic notes. Whilst hand written records could be brief (or even illegible) at times, reviewers have been concerned that the format of some electronic records systems are both restrictive and prescriptive. The use of tick boxes, in particular, is quite widespread in assessments and leaves little opportunity for description or qualification. When attempting to understand the decision making process of clinicians, the brevity of typed notes and lack of reflection made it difficult to know whether clinicians had consciously weighed known risk factors, such as the red flags described in previous Enquiries. Mental health professionals should make greater reflection on their assessments rather than simply describing the presentation.

Allow sufficient opportunity in electronic records systems for free text written comment rather than relying solely on 'tick boxes'. Where a woman has a history of mental health difficulties, make a brief (as a minimum) comment on mental health N

Disclosure of psychiatric records

The Enquiry rests on the willingness of provider organisations to share records in a timely manner. A number of women whose care was reviewed had no mental health services records provided and the Enquiry continues to struggle to obtain records from some mental health providers. This can limit the potential both for understanding areas of improvement and also areas of good practice.

Decisions on continuing, stopping or changing medication in pregnancy should be made only after careful review of the benefits and risks of doing so, to both mother and infant.

If psychotropic medication has been discontinued in advance of, or during, pregnancy, ensure women have an early postnatal review to determine whether they should recommence medication, carried out either by the GP or mental health service depending on the level of pre-existing mental health care.

Saving Lives, Improving Mothers' Care 2018 (Knight et al. 2018)

Accidental Deaths

Within the 16 women who died through accidental deaths during 2020, many also had a pattern of multiple adversity. At least two had diagnoses of Emotionally Unstable Personality Disorder. One of these two women had a marked increase in risk taking behaviours, associated with the use of alcohol and amphetamines. It appeared that this woman's baby had died but that this information was not shared with her mental health team. There was history of pregnancy loss also. She was not referred to addictions services despite ongoing use of substances and died in a road traffic accident. This woman reflected many of the themes found among women who died through suicide, particularly the association with multiple adversity, the importance of recognising changing patterns of behaviour and mental state, and of good communication and inter-agency working.

Substance misuse

A woman with a long history of anxiety and depression, significant domestic and sexual abuse, and longstanding substance abuse initially sought a termination of pregnancy. She continued with the pregnancy, intermittently engaging with antenatal care. Her substance abuse continued throughout pregnancy and social services, perinatal mental health services and maternity services made multiple attempts to engage with her. She gave birth at term and was discharged with her baby. Her baby was removed for safeguarding a few weeks later. She subsequently died from a multi-drug overdose.

This woman represented a significant challenge to care and support. Management of her history of sexual and physical trauma, domestic violence, compromised mental health, substance misuse, fragmented family relationships, chaotic living arrangements and a newborn removed from her care involved multiple different agencies. A hospital review concluded that gaps in social and mental health care were evident and many of the services were unaware of other interventions as their electronic records were all separate. Their recommendations included development and agreement of information sharing and a shared platform between different agencies.

Many of the women who died from substance misuse found it challenging to engage with services and there was evidence of professionals making significant attempts to engage. However, multiple services were frequently involved, and, as in this woman's care, there was little evidence of coordination or information sharing between them, which may have helped to provide the holistic care these women needed.

Consider ways of ensuring that, for each woman who misuses substances:

- **Progress is tracked through the relevant agencies involved in her care**
- **Notes from the different agencies involved in her care are combined into a single document**
- **There is a coordinated care plan**

NICE Guideline CG110 (National Institute for Health and Care Excellence 2010)

Communication

A woman with known prior opioid dependence and a past history of anxiety and depression booked late for antenatal care. She did not disclose her previous dependence and this information was not passed on to maternity services. She had regular telephone contacts with her GP requesting pain relief during her pregnancy. Face to face appointments were not offered due to the Covid-19 pandemic. She died from a mixed drug overdose in the third trimester.

This woman had been on a methadone programme in her first pregnancy but this was not known by maternity services, and therefore she did not receive specialist care. Her post-mortem notes that she was probably opioid naïve at the time of her death, but her frequent requests for pain relief may have been an indication of increasing distress and potential relapse of her dependence disorder. Specialist care may have allowed this to be identified and her relapse managed safely.

There is a clear duty on all health professionals to pass on relevant information that may affect the care a woman receives during pregnancy or alter her outcomes.

GPs should inform maternity services of any past psychiatric history and maternity services should ensure that the GP is made aware of a woman's pregnancy and enquire of the GP about past psychiatric history

Saving Lives, Improving Mothers' Care 2015 (Knight, Tuffnell et al. 2015).

Pregnancy or postnatal loss

A young care leaver was known to have learning difficulties, mental health problems and self-harm. During pregnancy she was assaulted on several occasions by her partner. Postnatally she received significant multi-agency involvement until the child was removed under a child protection order. Following the loss of her child her lifestyle became increasingly chaotic with substance abuse and reported low mood. She died from an accidental overdose a few months later.

Three quarters of the women who died from substance misuse had a child loss, mostly through child removal. In several instances, as in the woman described here, this led to an escalating pattern of domestic violence, mental health issues and substance misuse. Assessors noted that the pandemic exacerbated the lack of support for these women. The local midwife, reflecting on the care of one woman who died, reported that a programme designed to help vulnerable woman break the cycle of repeated pregnancies with subsequent removal of the child had lost its funding. Another woman with alcohol dependence had good support and engagement during pregnancy but died a few weeks after her child was removed into family care. Assessors felt that a lack of postnatal community support for those with chronic alcohol problems may have played a part in her death.

Loss of a child, either by miscarriage, stillbirth and neonatal death or by the child being taken into care increases vulnerability to mental illness for the mother and she should receive additional monitoring and support (Saving Lives, Improving Mothers' Care 2015 (Knight, Tuffnell et al. 2015))

Women with substance misuse are often more vulnerable and at greater risk of relapse in the postnatal period, even if they have shown improvement in pregnancy. Ensure they are reviewed for re-engagement in the early postpartum period where they have been involved with addictions services in the immediate preconception period or during pregnancy (Saving Lives, Improving Mothers' Care 2021)

Pandemic-related isolation

A highly vulnerable woman with a complex psychosocial history died following a drugs overdose two weeks after a first trimester miscarriage. Her history included emotionally unstable personality disorder, depression and post-traumatic stress disorder, following an abusive and violent relationship.

The local midwife's report described the challenges of this woman's life eloquently and with great insight and compassion. The woman tried throughout her life to overcome the challenges she faced. She was making good progress but was deeply affected by the social isolation caused by the restrictions during the pandemic, leading to a relapse in her recovery. Recovery is a process, and lapses are a normal part of the process. To minimise lapses, people need consistent, experienced clinical and social care, but the changes as a result of the pandemic meant that this was not possible for this woman.

3.5 Conclusions

A pattern of multiple adversity remains extremely common in women who die through suicide, substance misuse, homicide and accidental death. The importance of thorough, over-arching assessments which do not simply consider the woman's presentation 'in the moment' are as important in these women as they are in women with psychosis who may not have such a background history. Professional sensitive enquiry about underlying factors such as substance misuse and domestic abuse remains an important part of the risk assessment and clinicians need to remain mindful as to reasons why such information may not be disclosed.

It is important that specialist Perinatal Mental Health Teams are resourced to work with all of these women who have a secondary care mental health need, and not to exclude them on the basis of diagnosis or involvement with another team. Where there is a history of significant mental health concerns and risk related to past trauma, including previous childhood abuse, it should be recognised that although there may be a period of relative stability during pregnancy, becoming a parent (particularly for the first time) can be associated with a marked worsening of mental state and increase in risk.

The increased rate of teenage maternal suicides remains a significant concern. This was first identified in the 2017-19 report. Teenage women are most likely of any age group to die by violent means outside of pregnancy and this emphasises the additional specialist care these women need.

Many of the women who died through either suicide or substance misuse struggled to engage with services. Multiple services were frequently involved and given the underlying difficulties with engagement there is a need for agencies to work closely together when planning contacts to maximise the likelihood of attendance and engagement.

Several women with multiple and complex problems received good care with professionals working hard in a multi-agency fashion to engage and to try and reduce the risks that were recognised. Overall, assessors felt that improvements to care may have made a difference to the outcome in more than two thirds of women who died by suicide and more than a third of those who died from substance misuse (Table 3.5).

Table 3.5: Classification of care received by women who died by suicide or from substance misuse for whom there was sufficient information to assess their care, UK and Ireland 2020

Classification of care received	Women who died by suicide (n=26*) Number of women (%)	Women who died by substance misuse (n=26*) Number of women (%)
Good care	2 (8)	2 (8)
Improvements to care which would have made no difference to outcome	6 (23)	15 (58)
Improvements to care which may have made a difference to outcome	18 (69)	9 (35)

*Insufficient information to classify care for two women who died by suicide and one woman who died from substance misuse

4. Messages on caring for women with multiple morbidities

Charlotte Frise, Sophie Russell, Teresa Kelly, Judy Shakespeare, Katie Cranfield, Rachel Mathers, Kathryn Bunch and Marian Knight on behalf of the MBRRACE-UK diabetes and multimorbidity chapter-writing group

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4.1 Key messages

New recommendations

Consider skills and drills training on the management of diabetic ketoacidosis in pregnancy to ensure that all maternity staff are aware of the symptoms and signs of diabetic ketoacidosis. **[ACTION: Service Planners/Commissioners, Hospitals/Trusts/Health Boards]**.

Develop guidance on ketone testing in pregnancy and the subsequent response to an abnormal test **[ACTION: Royal Colleges of Obstetricians and Gynaecologists, Midwives, Physicians and General Practitioners]**.

Ensure that guidance on the management of diabetic ketoacidosis in pregnancy is included in all guidelines used outside of the maternity setting **[ACTION: Joint British Diabetes Societies for Inpatient Care]**.

Ensure the appropriate national Maternity Early Warning Score is used to monitor a pregnant woman wherever in the hospital she receives care **[ACTION: Service Planners/Commissioners, Hospitals/Trusts/Health Boards]**.

Existing guidance and recommendations requiring improved implementation

Consider an approach to care that takes account of multimorbidity if the person requests it or if any of the following apply:

- they find it difficult to manage their treatments or day-to-day activities
- they receive care and support from multiple services and need additional services
- they have both long-term physical and mental health conditions
- they frequently seek unplanned or emergency care
- they are prescribed multiple regular medicines (NICE NG56. Multimorbidity: clinical assessment and management)

[Ensure] adults with an individualised management plan for multimorbidity know who is responsible for coordinating their care (Multimorbidity. NICE Quality standard QS153)

Establish triage processes to ensure that women with mental health concerns can be appropriately assessed, including face-to-face if necessary, and access specialist perinatal mental health services in the context of changes to the normal processes of care due to COVID-19. Perinatal mental health services are essential and face to face contact will be necessary in some circumstances. There is a clear role for involvement of the lead mental health obstetrician or midwife in triage and clinical review (Saving Lives Improving Mothers' Care rapid report 2020)

Members of diabetes professional teams providing care or advice to adults with type 1 diabetes should be alert to possible clinical or subclinical depression and/or anxiety, particularly if someone reports or appears to be having difficulties with self-management (NICE Guideline NG17)

Diabetes professionals should:

- ensure they have appropriate skills to identify and provide basic management of non-severe mental health problems in people from different cultural backgrounds
- be familiar with appropriate counselling techniques and drug therapy, while arranging prompt referral to specialists for people whose mental health problems continue to interfere significantly with their wellbeing or diabetes self-management (NICE Guideline NG17)

Women with type 1 diabetes and nephropathy are at intermediate risk of venous thromboembolism and antenatal thromboprophylaxis with low molecular weight heparin should be considered (RCOG Green-top Guideline 37a)

Advise women with diabetes who are planning a pregnancy to aim to keep their HBA1c level below 48 mmol/mol (6.5%), if this is achievable without causing problematic hypoglycaemia (NICE Guideline NG3).

Information from practitioners, accompanied by an advice leaflet on reduced fetal movement, based on current evidence, best practice and clinical guidelines, to be provided to all pregnant women by 28+0 weeks of pregnancy and reduced fetal movement discussed at every subsequent contact (Saving Babies Lives Care Bundle version 2 2019)

HDU/level 2 facility and/or insertion of central line may be required [for pregnant women with DKA] (request urgent senior review) (JBDS-IP The management of DKA in adults 2021)

For women undergoing planned caesarean birth between 37+0 and 38+6 weeks an informed discussion should take place with the woman about the potential risks and benefits of a course of antenatal corticosteroids. Although antenatal corticosteroids may reduce admission to the neonatal unit for respiratory morbidity, it is uncertain if there is any reduction in respiratory distress syndrome, transient tachypnoea of the newborn or neonatal unit admission overall, and antenatal corticosteroids may result in harm to the neonate which includes hypoglycaemia and potential developmental delay (RCOG Green-top Guideline 74)

4.2 Background

As these reports have repeatedly showed, most women who die during or after pregnancy in the UK have multiple physical and mental health co-morbidities as well as social complexity. The presence of multiple long-term conditions has been recognised as an important focus of health research more widely (National Institute for Health and Care Research 2021), because of the differing needs for care and adverse impacts on the outcomes of each individual disease condition. The focus of this MBRRACE-UK morbidity enquiry was to investigate the health and care needs of pregnant women with multiple morbidities and was complemented by a confidential enquiry into diabetic ketoacidosis (DKA) in pregnancy funded as part of an NIHR project (reference PB_PG_0817_20004) (Diguisto, Strachan et al. 2022). Findings from both enquiries are presented here.

4.3 The women whose care was reviewed

The women whose care was reviewed were identified through a UK Obstetric Surveillance System (UKOSS) study of diabetic ketoacidosis in pregnancy conducted between April 2019 and September 2020. Over this period, 82 women were identified with DKA, 6.3 per 100,000 maternities. Records for all 82 women were sought for inclusion in the confidential enquiry. No records (n=8) were available from Northern Ireland due to the requirement for consent to be obtained before records could be released and lack of staff capacity in the context of the pandemic. Records were not forthcoming for a further 13 women, thus the care of 61 women was examined for the purposes of this chapter. The definition for women to be included in the MBRRACE-UK multimorbidity enquiry was women with DKA who also had either pre-existing hypertension or thyroid disease, however, 41% of women with DKA without either pre-existing hypertension or thyroid disease had other pre-existing physical or mental health co-morbidities and can be considered multi-morbid. This chapter therefore describes the messages for the care of the whole cohort, which includes lessons in relation to several intersecting co-morbidities as well as diabetes.

Table 4.1: The socio-demographic characteristics of women with diabetic ketoacidosis whose care was reviewed

Characteristics	Women with hypertension/ thyroid (n=17) Frequency (%)	Women without hypertension/ thyroid disease (n=44) Frequency (%)	Total (n=61) Frequency (%)
Age			
<20	1 (6)	1 (2)	2 (3)
20 – 24	1 (6)	14 (32)	15 (25)
25 – 29	3 (18)	17 (39)	20 (33)
30 – 34	9 (53)	5 (11)	14 (23)
35 – 39	3 (18)	4 (9)	7 (11)
≥ 40	0 (0)	3 (7)	3 (5)
Parity			
0	7 (41)	16 (36)	23 (38)
1-2	9 (53)	20 (45)	29 (48)
≥3	1 (6)	8 (18)	9 (15)
Multiple Pregnancy			
Yes	0 (0)	1 (2)	1 (2)
No	17 (100)	43 (98)	60 (98)
Ethnicity			
White European	17 (100)	35 (80)	52 (85)
Asian	0 (0)	5 (11)	5 (8)
Black	0 (0)	1 (2)	1 (2)
Chinese/Others	0 (0)	2 (5)	2 (3)
Mixed	0 (0)	1 (2)	1 (2)
Socioeconomic status (Occupational classification)			
Employed (Either woman or partner)	13 (76)	26 (59)	39 (64)
Neither woman or partner employed	4 (24)	12 (27)	16 (26)
Missing	0 (0)	6 (14)	6 (10)
Body mass index (BMI) (kg/m²)			
<25	7 (41)	18 (41)	25 (41)
25-29			
≥30	6 (35)	16 (36)	22 (36)
Missing	0 (0)	1 (2)	1 (2)
Smoking status			
Yes	3 (18)	16 (36)	19 (31)
No	14 (82)	28 (64)	42 (69)
Any pre-existing additional medical or mental health problem (excluding obesity)			
Yes	8 (47)	18 (41)	26 (43)
No	9 (53)	26 (59)	35 (57)

4.4 Overview of care and new lessons to be learned

Care for women with multi-morbidities

Complexity and the need for a multidisciplinary approach

Many women whose care was reviewed for this chapter had multiple, complex and interacting medical and social conditions. Several women were so complex that their care teams clearly felt overwhelmed. There were examples of excellent multidisciplinary team care but similarly examples of where the multidisciplinary team members were not all in place. The challenges of women's individual circumstances meant that their care was often not well managed within existing structures, and there were many occasions when women fell through the gaps, impacting on aspects of diabetes care as well as care for their other morbidities. Women's care needs could not all be met by the diabetes pregnancy clinic or the diabetes specialist team or the obstetric medicine clinic and multidisciplinary specialist care was required from multiple teams often in multiple locations.

A multiparous ethnic minority woman with poorly controlled Type 1 diabetes mellitus had known peripheral neuropathy, chronic pain and hypertension. She was admitted with abdominal pain and vomiting and found to be 12 weeks pregnant. Her HbA1c was 92 mmol/mol on admission. Her medications (ACE inhibitor, statin and pregabalin) were stopped and she was started on methyldopa. She subsequently had multiple readmissions with poorly controlled hypertension and DKA; on one occasion she tested positive for cocaine. She had a caesarean section at 30 weeks and was readmitted two days after discharge with poorly controlled hypertension. Two months postpartum she was admitted again with DKA; at this point all her children were taken into care because of her poor self-management of diabetes and continued use of crack cocaine. She had a termination of pregnancy eight months later because of progressive complications of her diabetes. M

This woman had diabetes with end organ disease and chronic hypertension, but she was also using drugs and had social issues. Her care was managed by the obstetric team with intermittent advice from other specialities. Her hypertension care (with methyldopa as the drug of first choice) was outdated (National Institute for Health and Care Excellence 2019). Her treatment while in hospital was reactive, not proactive; there appeared to be no plan for the complexity of her care and no consideration of some important aspects of her care (drug and social issues).

She was a highly complex woman with multimorbidity. As pregnant women's health become more complex, they cannot get everything they need from just one service, such as a diabetes specialist nurse (DSN). This woman needed an approach that took into account her different problems, with an individualised management plan and a care coordinator. Women with similar and complex problems should be identified early in pregnancy and need a multidisciplinary team (MDT) approach that can respond to changes through pregnancy, birth, postpartum and plan for (or avoid with adequate contraception) the next pregnancy. Although guidelines exist to optimise care of adults with multimorbidity (National Institute for Health and Care Excellence 2016), it is not clear that this is often considered in the context of pregnancy.

Consider an approach to care that takes account of multimorbidity if the person requests it or if any of the following apply:

- they find it difficult to manage their treatments or day-to-day activities
- they receive care and support from multiple services and need additional services
- they have both long-term physical and mental health conditions
- they frequently seek unplanned or emergency care
- they are prescribed multiple regular medicines

NG56. Multimorbidity: clinical assessment and management (National Institute for Health and Care Excellence 2016)

[Ensure] adults with an individualised management plan for multimorbidity know who is responsible for coordinating their care.

Multimorbidity. Quality standard [QS153] 2017. www.nice.org.uk/guidance/qs153/chapter/Quality-statements

Mental Health

A young woman had a history of poorly controlled type 1 diabetes, drug misuse, self-harm and depression. As a child she had been known to safeguarding services and she was regarded as a vulnerable adult. Her midwife undertook her antenatal booking appointment by telephone because of Covid-19 and arranged for a diabetes specialist nurse to call her. The advice she was given was good, but then she became homeless and was housed in a hostel in a new area where she was not registered with a GP; she ran out of her diabetes equipment and medication. She collapsed and was admitted with DKA; as a result she had a miscarriage. While she was still in hospital, she took an overdose of insulin. A psychiatric assessment by a liaison team concluded she had no acute treatable mental illness. She was seen by a diabetes specialist nurse who had concerns about her ability to manage her own diabetes, but did not consider her mental health. She subsequently took her own discharge from hospital. M

This woman had a complex mixture of physical, mental health and social needs. In these circumstances, a face-to-face booking appointment would have been more appropriate (Knight, Bunch, et al 2020).

Establish triage processes to ensure that women with mental health concerns can be appropriately assessed, including face-to-face if necessary, and access specialist perinatal mental health services in the context of changes to the normal processes of care due to COVID-19. Perinatal mental health services are essential and face to face contact will be necessary in some circumstances. There is a clear role for involvement of the lead mental health obstetrician or midwife in triage and clinical review.

MBRRACE-UK Rapid report: Learning from SARS-CoV-2-related and associated maternal deaths in the UK March – May 2020 (Knight, Bunch, et al 2020)

The liaison psychiatric services did not consider she reached the usual threshold for mental health services. The diabetes specialist nurse only dealt with her diabetes. She may have benefited from a referral to a perinatal mental health team for a fuller recognition of her needs and an offer of support.

Mental health problems in women with diabetes (depression, anxiety and eating disorders) are common (Ducat, Philipson et al. 2014). Depression is especially common in perinatal women with type 1 diabetes (Ross, Falhammar et al. 2016). NICE guidelines for management of diabetes in pregnancy do not consider mental health (National Institute for Health and Care Excellence 2020), but the adult guideline for Type 1 diabetes emphasises poor glycaemic control as a flag for mental health problems (National Institute for Health and Care Excellence 2022). They recommend diabetes professionals (which would include diabetes specialist nurses working with pregnant women), have a knowledge of mental health disorders.

Members of diabetes professional teams providing care or advice to adults with type 1 diabetes should be alert to possible clinical or subclinical depression and/or anxiety, particularly if someone reports or appears to be having difficulties with self-management.

Diabetes professionals should:

- ensure they have appropriate skills to identify and provide basic management of non-severe mental health problems in people from different cultural backgrounds
- be familiar with appropriate counselling techniques and drug therapy, while arranging prompt referral to specialists for people whose mental health problems continue to interfere significantly with their wellbeing or diabetes self-management.

NICE Guideline NG17 (National Institute for Health and Care Excellence 2022a)

Engagement

An older woman with type 2 diabetes, hypertension, anxiety, and a BMI over 40kg/m² was looked after in her pregnancy only by a community midwife and a diabetes specialist midwife, as she declined any other input. She frequently declined to give urine specimens or to have her blood pressure checked. In addition, she declined to check her blood sugars despite a raised HbA1c or to take aspirin and low molecular weight heparin. When a scan at 30 weeks showed reduced fetal growth and significant polyhydramnios, further assessment was declined. At 31 weeks' gestation she consulted her GP because of backache and vomiting for 3 days. Hospital admission was advised and declined. She laboured that night and gave birth quickly at home. Shortly after admission to hospital she was diagnosed with DKA. M

A significant number of women proved challenging for teams to engage with. This led to women receiving care outside national guidance which may have contributed to preventable complications. As emphasised above, diabetes is known to be psychologically demanding and outside pregnancy, psychosocial therapies have been shown to be valuable in improving compliance (Delamater, Jacobson et al. 2001, Delamater 2006). Some diabetes teams have access to a psychologist who could be used to help engagement with the obstetric diabetes team who are likely to be new professionals to her. The intensity of monitoring and blood sugar control required in pregnancy for optimum management is likely to be challenging for many people, particularly those who do not usually check their blood sugars frequently or who don't normally use insulin. Some women may feel overwhelmed, resulting in their disengagement. Individualised care, psychological support, continuity and flexibility in engagement are all important

in forming a trusting relationship, empowering patients with the aim of improving outcomes (Delamater, Jacobson et al. 2001). This approach is resource and thus funding intensive, however the benefits may go beyond the index pregnancy if self-care behaviours are improved.

Fluid balance and co-morbidity with hypertensive disorders of pregnancy

A woman with type 1 diabetes was admitted in the early third trimester with a urinary tract infection, DKA and raised blood pressure. She was managed with a variable rate insulin infusion and concurrent intravenous fluid, labetalol and nifedipine for her blood pressure and antibiotics. The following day she developed limb swelling, severe pain, respiratory symptoms with low oxygen saturations and was noted to be anaemic (Hb 85g/l). She was treated with furosemide for fluid overload. Her pre-eclampsia worsened and she had an elective caesarean birth a few days later. M

This woman's care highlights that women who may not have multiple morbidities at the start of pregnancy become multi-morbid with the onset of a pregnancy-related condition such as pre-eclampsia. Her care illustrates the complexity in fluid management of pregnant women with diabetes. The development of DKA alongside emerging pre-eclampsia led to over-zealous fluid infusion and subsequent pulmonary oedema which needed treatment with furosemide.

The peripartum management of diabetes is challenging and needs a multi-disciplinary approach. Input from obstetricians, endocrinologists, anaesthetists and diabetes nurse specialists is advised. When diabetes is further complicated by pre-eclampsia and DKA the addition of critical care input may be necessary (Joint British Diabetes Societies for Inpatient Care (JBDS-IP) 2022). The management of both pre-eclampsia and DKA have clear and well-defined goals but conflict in their strategies. In the simplest terms, treatment of DKA will focus on fluid resuscitation of an extremely dehydrated patient, whereas in pre-eclampsia fluid restriction is the norm.

Pre-eclampsia management in women with diabetes is complicated by the need for many IV infusions e.g. variable rate insulin infusion (VRII), substrate fluid, oxytocin, anti-hypertensives and magnesium (National Institute for Health and Care Excellence 2020). Fluid balance must be closely monitored in these patients. They are at risk of fluid overload and development of pulmonary oedema. NICE recommends fluid restriction to 80ml/hr unless there are ongoing fluid losses (National Institute for Health and Care Excellence 2019). It may be possible to give drug infusions in a smaller volume after discussion with a local pharmacy team (Yap, Modi et al. 2020).

The increased fluid regime as part of DKA guidelines can also raise the possibility of fluid overload. A low threshold for input from the critical care team is advised, as women may need an arterial line placed (for ease of blood sampling and detection of hypertension) and CVP monitoring for signs of fluid overload (Joint British Diabetes Societies for Inpatient Care (JBDS-IP) 2022).

Prevention of co-morbidity with venous thromboembolism

A woman with a 10 year history of type 1 diabetes was pregnant for the second time. No VTE risk assessment was conducted in early pregnancy and there was no documentation about nephropathy or proteinuria. At 28 weeks she developed a pulmonary embolism which was appropriately treated. At this stage staff became aware of her diabetic nephropathy. In the third trimester she was admitted hyperglycaemic and mildly ketotic with a short history of diarrhoea and vomiting. A CTG was pathological so she underwent emergency caesarean birth. M

Diabetic nephropathy can result in significant protein leak, which can be exacerbated in pregnancy. This can cause complications such as hypoalbuminaemia and peripheral oedema. There can also be difficulty distinguishing a pathological increase in proteinuria (for example if super-imposed pre-eclampsia develops) from a worsening of the underlying kidney disease. Significant protein loss is a risk for venous thromboembolism and prophylactic LMWH should be prescribed.

It is therefore important to:

- Enquire about diabetic nephropathy on the first clinical review
- Assess baseline proteinuria
- Prescribe VTE prophylaxis if protein leak is significant (nephrotic range proteinuria)

Women with type 1 diabetes and nephropathy are at intermediate risk of venous thromboembolism and antenatal thromboprophylaxis with low molecular weight heparin should be considered

Green-top Guidance 37a (Royal College of Obstetricians and Gynaecologists 2015)

Diabetes-related comorbidities: gastroparesis

A young woman with a long history of type 1 diabetes was admitted on several occasions during her pregnancy with vomiting and repeated concerns about the development of diabetic ketoacidosis. Whilst gastroparesis was felt likely by the doctors that reviewed her, there was no involvement of the gastroenterology team, no consideration of other treatments, such as use of erythromycin as a pro-kinetic and no emphasis on the importance of metoclopramide. There was also repeated confusion / uncertainty about whether she had diabetic ketoacidosis, and the diagnosis was suggested at times even when she was not hyperglycaemic, ketotic or acidotic. M

The neuropathy that is seen in individuals with pre-existing diabetes is well known to affect the peripheries, but less well known is the effect on the innervation of the stomach, which can result in gastroparesis. Gastroparesis is a slowing of gastric emptying, which is almost invariably exacerbated in pregnancy. Women may be diagnosed with hyperemesis gravidarum if their symptoms increase in pregnancy, but it is helpful to be clear about the diagnosis as the treatment for gastroparesis focuses on speeding up gastric motility, and other treatments commonly used for hyperemesis, which target central receptors, may not make a difference.

A number of women with pre-existing diabetes also appeared to have a current or past history of substance misuse. It is therefore important to enquire about current cannabis use, as this can be emetogenic.

Messages for care of women with diabetes

Culturally sensitive care

An older multiparous Muslim woman was diagnosed with gestational diabetes. She was referred to a specialist dietician and discussed her desire to fast for Ramadan. She was counselled that she could have both medical and pregnancy exemption, but she decided to fast despite this. Her diabetes was difficult to control, and she had an episode of euglycaemic ketoacidosis later in pregnancy. She received intensive senior multidisciplinary involvement throughout her pregnancy and had an induced birth at term without complications. M

Assessors felt this woman received good care. She received specialist dietary advice, tailored to her needs, and senior multidisciplinary care throughout her pregnancy. It is important to be aware of times when women, as in this instance, may need advice from a religious adviser to assist with their diabetes control. Culturally sensitive recipe advice can also be helpful (<https://selondonccg.nhs.uk/news/culturally-sensitive-cookbook-for-women-and-birthing-people-with-gestational-diabetes-free/>).

Recognition of DKA

A multiparous woman with poorly controlled diabetes and episodes of DKA pre-pregnancy booked with an HbA1c of 80mmol/mol. She had multiple admissions with hyperglycaemia and impending DKA needing IV insulin infusions. On her last admission at 29 weeks she presented with abdominal pain and reduced fetal movements. She had high capillary ketones of 3.3mmol/l and a blood glucose of 8.9mmol/L. It was not recognised that she had DKA until her condition worsened with acute abdominal pain and vomiting. Her blood glucose rose to 22mmol and even higher capillary ketones of 6.3mmols and an arterial pH of 7.1 She underwent an emergency caesarean section but her baby required extensive resuscitation and died 24 hours later. M

There were several women in this enquiry who were admitted with DKA that was not promptly recognised or treated appropriately which contributed to poor fetal and neonatal outcomes. DKA in pregnancy is associated with a high maternal and perinatal death rate and should be treated as an obstetric emergency and requires a multidisciplinary approach. DKA can occur with lower glucose levels in the presence of raised ketones. Pregnant women with diabetes who present with signs and symptoms associated with DKA (Mohan, Baagar et al. 2017) should have DKA excluded, noting that occasionally DKA may be the first presentation of diabetes in pregnancy.

Box 4.1: Symptoms and signs which may occur in DKA in pregnancy (Mohan, Baagar et al. 2017)

Nausea and vomiting	Hyperventilation
Abdominal pain	Tachypnoea
Polyuria or polydipsia	Hypotension
Blurred visions	Tachycardia
Muscle weakness	Coma
Drowsiness	Shock
Lethargy	Abnormal fetal heart rate tracing
Change in mental status	Reduced fetal movement

Consider skills and drills training on the management of diabetic ketoacidosis in pregnancy to ensure that all maternity staff are aware of the symptoms and signs of diabetic ketoacidosis. **N**

Euglycaemic ketoacidosis

A young woman was pregnant for the second time. Her first pregnancy was complicated by gestational diabetes, macrosomia and shoulder dystocia. In this pregnancy she was diagnosed with gestational diabetes at 30 weeks, but developed nausea and vomiting with metformin so was changed to insulin therapy. A few days later she was feeling unwell and on admission she was found to be acidotic and ketotic, with only a slightly raised glucose level. She was treated appropriately with intravenous glucose and insulin. Her liver function was also abnormal. Investigations were undertaken but no clear underlying cause was identified.

She had a caesarean birth at 32 weeks' gestation. All tests for diabetes after she gave birth were normal. M

Ketone testing when blood glucose is raised is a reflex response for clinicians. The changes that occur in pregnancy, however, mean that ketosis can occur much more quickly, particularly in the third trimester. This means that any woman can become ketotic, including those with gestational diabetes like the woman described above, and those without diabetes or hyperglycaemia. 'Euglycaemic' ketoacidosis is a term used in the non-pregnant setting to refer to DKA when blood glucose is less than 13.8 mmol/L (250 mg/dl). This is a potentially confusing term, however, as this glucose level is still abnormal (above the upper limit of normal in both non-pregnant and pregnant individuals) and is often associated with the diagnosis of diabetes. Importantly, ketoacidosis with a normal or low glucose level is seen in non-diabetic pregnant women after a short period of vomiting, and is more commonly referred to as 'starvation' ketoacidosis. Ketoacidosis was also reported in non-pregnant and pregnant individuals with COVID-19, which appears to be more complex than simply a result of reduced oral intake.

Importantly:

- The absence of a known diagnosis of diabetes does not mean ketosis cannot occur
- The absence of pre-existing diabetes does not mean ketosis is not possible
- A low threshold for capillary ketone testing should be used, in all unwell pregnant women
- Ketosis should be promptly treated in all women irrespective of underlying diagnosis to prevent acidosis

Ketonaemia

A 30 year old woman with no history of diabetes presented to the Emergency department at 24 weeks of gestation with vomiting and a headache. Urine dipstick showed 3+ ketones. There was concern about a venous sinus thrombosis so she underwent CT head, in addition to receiving intravenous rehydration. She was discharged home without repeat ketone testing, fetal assessment or glucose measurement. Two days later she was readmitted with severe DKA and an intrauterine death was confirmed.M

There is an absence of guidelines about ketone testing in pregnancy. Urinary ketones can be an indicator of pathology but are most commonly identified when multi-test urine dipsticks are being used solely for the detection of proteinuria and therefore often overlooked. Abnormal urinary ketones should prompt capillary glucose and ketone measurement. A venous blood gas is advised if either of these is abnormal or if capillary ketone testing is not easily available to check for acidosis. Capillary ketone testing is preferred as this is more accurate and can provide closer information about hour-by-hour changes in ketone level. Assessors felt that if the significance of this woman's urinary ketones had been recognised and acted on, the stillbirth of her baby might have been prevented.

Develop guidance on ketone testing in pregnancy and the subsequent response to an abnormal test N

Serial scanning and fetal wellbeing

A young woman with type 1 diabetes became pregnant with a booking HbA1c of 54mmol/ mol. There was no evidence that she received contraceptive advice pre-pregnancy. During pregnancy she found glucose control difficult. Serial growth scans showed a normal growth trajectory which was considered reassuring. At 37 weeks a planned ultrasound scan diagnosed an intrauterine death. She was admitted the same day for induction of labour and found to have DKA. M

Several women with pre-existing diabetes became pregnant with a raised HbA1c at booking and later went on to have sudden intrauterine deaths in the third trimester. All medical staff should be aware that both a raised HbA1c at booking and poor glucose control in pregnancy increase the risk of sudden intrauterine death in pregnancy, especially after 36 weeks, and women should therefore be advised about highly effective contraception pre-pregnancy until their control is as good as possible. It is not possible to predict sudden intrauterine death from serial growth scans or cardiotocography. Other tests of fetal wellbeing are not recommended by NICE (National Institute for Health and Care Excellence 2020) until 38 weeks of pregnancy, but women with diabetes should receive the same advice about awareness of fetal movements as all other women, and this should be discussed at every visit.

Advise women with diabetes who are planning a pregnancy to aim to keep their HbA1c level below 48 mmol/ mol (6.5%), if this is achievable without causing problematic hypoglycaemia (NICE Guideline NG3).

Information from practitioners, accompanied by an advice leaflet on reduced fetal movement, based on current evidence, best practice and clinical guidelines, to be provided to all pregnant women by 28+0 weeks of pregnancy and reduced fetal movement discussed at every subsequent contact.

Saving Babies Lives Care Bundle version 2 2019

DKA is an obstetric emergency

DKA is an obstetric emergency as it carries a risk of mortality and morbidity for the pregnant woman and the fetus (Diguisto, Strachan et al. 2022). In three women admitted with DKA there were delays in recognition and treatment of the DKA which assessors felt had contributed to their babies being stillborn. While there are clear Joint British Diabetes Societies for Inpatient Care (JBDS-IP) guidelines for management of DKA in adults (Joint British Diabetes Societies for Inpatient Care (JBDS-IP) 2021), they do not contain any specific guidance concerning management of DKA in pregnancy, which include specifics such as the occurrence of euglycaemic ketoacidosis, as well as considerations around fetal monitoring and decisions concerning delivery. Some considerations concerning DKA

in pregnancy are included in the JBDS-IP guideline on managing diabetes and hyperglycaemia during labour and birth (Joint British Diabetes Societies for Inpatient Care (JBDS-IP) 2022) but this is clearly not widely available in acute medical settings.

Correcting the maternal condition is imperative as it will improve both her clinical condition and that of the baby, but, as is frequently seen in these reports, delays due to uncertainty around the care of pregnant women were evident particularly in non-maternity settings. While the fetal heart should be auscultated early, at an appropriate gestation CTG monitoring should be considered until there is improvement in the maternal condition (Joint British Diabetes Societies for Inpatient Care (JBDS-IP) 2022). The decision for delivery is complex and is based on multiple factors including the gestational age and the response to treatment of the mother. These additional aspects of care need to be incorporated into the JBDS-IP general adult guidance to ensure pregnant women receive the same standard of care as other adults with DKA.

Ensure that guidance on the management of diabetic ketoacidosis in pregnancy is included in guidelines used outside of the maternity setting **N**

Critical care

JBDS-IP guidance acknowledges the fact that pregnant/peripartum patients with DKA represent a particularly high risk group (Joint British Diabetes Societies for Inpatient Care (JBDS-IP) 2021) who “need specialist input as soon as possible and special attention needs to be paid to their fluid balance.” The treatment and monitoring required for adequate, timely management of DKA is not only labour intensive, but requires significant expertise both on the part of medical and nursing staff. Whatever the underlying cause or precipitant for DKA, national guidelines recognise that this particularly vulnerable patient group are likely to require a High Dependency/ Level 2 critical care environment (rather than an Enhanced Maternal Care setting) (Joint British Diabetes Societies for Inpatient Care (JBDS-IP) 2021, Joint British Diabetes Societies for Inpatient Care (JBDS-IP) 2022). Several women’s care was not escalated to an appropriate level and/or the potential severity of their DKA was not recognised. All critically unwell obstetric patients must not only have a clear route of escalation to critical care, but also access to the expertise of critical care outreach or equivalent services.

HDU/level 2 facility and/or insertion of central line may be required [for pregnant women with DKA] (request urgent senior review)

JBDS-IP The management of DKA in adults 2021 (Joint British Diabetes Societies for Inpatient Care (JBDS-IP) 2021)

Pregnancy-specific protocols

A woman with diabetes was admitted to the surgical ward at 26 weeks gestation. Her blood pressure was raised at 140/102 but as a NEWS chart was used, it did not score so was not escalated. At 29 weeks she was admitted with diarrhoea and vomiting and went on to develop DKA. An urgent obstetric review was requested but an intrauterine death was diagnosed. She was admitted to a high dependency unit for the management of the DKA and again a NEWS chart was used. A different IT system was also in place which the maternity team did not have access to. It was only when she was moved to delivery suite that her raised blood pressure was noted and treatment for pre-eclampsia with intravenous labetalol and magnesium sulphate was started. **M**

When pregnant women are admitted to other areas of a hospital the care they receive should be of the same standard as that in the maternity unit. Recording observations on a NEWS chart gives false assurance, delaying treatment of pregnancy related complications such as pre-eclampsia. UK nations and Ireland have provided guidance and standard obstetric early warning scores (Healthcare Improvement Scotland 2018, Department of Health 2019, NHS England 2022) (for England rollout is expected in early 2023), but it is important to note that observations should be interpreted by reviewing the whole clinical picture and not focusing on one aspect of it. A robust multidisciplinary team review can aid the assessment and management.

Ensure the appropriate national Maternity Early Warning Score is used to monitor a pregnant woman wherever in the hospital she receives care. **N**

Steroids

A woman with well controlled Type 1 diabetes was admitted at 38 weeks for antenatal steroids prior to a planned caesarean section. She rapidly developed signs of DKA which was treated promptly by the multidisciplinary team. M

Several women had DKA secondary to maternal steroid administration. Antenatal corticosteroids reduce admission to the neonatal unit for babies born before 36+6 weeks' gestation. From 37+0- 38+6 weeks, they may not reduce admission and they may cause harm including hypoglycaemia and potential developmental delay to a neonate (Stock, Thomson et al. 2022). Given that pregnant women with diabetes will require extra insulin when receiving antenatal steroids (National Institute for Health and Care Excellence 2020), the risk of neonatal hypoglycaemia and DKA in the mother, antenatal steroids should only be given after 36+6 weeks after a full discussion of the risks and benefits (Stock, Thomson et al. 2022).

For women undergoing planned caesarean birth between 37+0 and 38+6 weeks an informed discussion should take place with the woman about the potential risks and benefits of a course of antenatal corticosteroids. Although antenatal corticosteroids may reduce admission to the neonatal unit for respiratory morbidity, it is uncertain if there is any reduction in respiratory distress syndrome, transient tachypnoea of the newborn or neonatal unit admission overall, and antenatal corticosteroids may result in harm to the neonate which includes hypoglycaemia and potential developmental delay.

Green Top Guideline 74 Antenatal corticosteroids to reduce neonatal morbidity and mortality (Stock, Thomson et al. 2022)

4.5 Conclusions

Assessors felt that for 38% of women, different care might have made a difference to the outcome for them or their baby (Table 4.2). This morbidity enquiry clearly shows the additional challenges faced by women with multiple morbidities in pregnancy, which is exacerbated when they receive care by teams who are inexperienced in pregnancy medicine. While all of the women whose care was reviewed for the purposes of this chapter recovered from their DKA episode, many of their babies did not; improved care may have prevented several babies from being stillborn. Diabetes care has been highlighted as an area of improvement in previous perinatal confidential enquiry reports examining the care of stillborn babies (Draper, Kurinczuk et al. 2015). It is also clear that while guidelines exist which aim to optimise care of adults with multimorbidity, this is not yet regularly considered in the context of pregnancy. This must be an important focus for new maternal medicine networks in England and equivalent structures in the devolved nations and Ireland.

Table 4.2: Classification of care received by women with diabetic ketoacidosis

Classification of care received	N=61 Number of women (%)
Good care	6 (10)
Improvements to care which would have made no difference to outcome	32 (52)
Improvements to care which may have made a difference to outcome	23 (38)

5. Lessons on cardiovascular care

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5.1 Key messages

New recommendations

Wheeze can be due to pulmonary oedema. Consider wheeze which does not respond to standard asthma management and exertional syncope as red flag symptoms of cardiovascular disease in addition to orthopnoea and chest pain **[ACTION: All health professionals, Professional education programmes]**.

Be aware of the common risk factors for heart disease and venous thromboembolism, such as extreme obesity, and consider on an individual basis whether women should be made aware of the symptoms and signs of heart disease as well as those of venous thromboembolism **[ACTION: All health professionals, Professional education programmes]**.

Ensure maternal medicine networks and their equivalents in the devolved nations and Republic of Ireland can provide appropriate expertise and supervision for all women, including those in rural/remote areas. **[ACTION: Service Planners/Commissioners, Hospitals/Trusts/Health Boards]**.

Develop guidance for the use of Brain Natriuretic Peptide measurement in pregnancy **[ACTION: Royal Colleges of Obstetricians and Gynaecologists and Physicians]**.

Be aware that women using oral anticoagulation with warfarin may be more safely managed without transition to low molecular weight heparin treatment when having an early termination of pregnancy **[ACTION: All health professionals, Professional education programmes]**.

Existing guidance and recommendations requiring improved implementation

A raised respiratory rate, chest pain, persistent tachycardia and orthopnoea are important signs and symptoms of cardiac disease which should always be fully investigated. The emphasis should be on making a diagnosis, not simply excluding a diagnosis. (Knight, Nair et al. 2016)

Heart failure in cardiomyopathy can develop rapidly and guidelines for the management of acute heart failure and cardiogenic shock apply. For rapid diagnosis and decision-making, a pre-specified management algorithm and expert interdisciplinary team are crucial (ESC guidelines on the diagnosis and management of acute and chronic heart failure).

Women [who have had confirmed pre-eclampsia] should be given an individual [postpartum] care plan on hospital discharge that includes:

- Who will provide follow-up care, including medical review if needed.
- Frequency of blood pressure monitoring.
- Thresholds for reducing or stopping treatment. (NICE CKS Hypertension in pregnancy)

A persistent sinus tachycardia is a 'red flag' and should always be investigated, particularly when there is associated breathlessness. (Saving Lives, Improving Mothers' Care 2019)

Take a cardiac-specific history and suspect heart failure if there is not another likely cause of any of the following symptoms:

- Breathlessness when lying down (ruling out aortocaval compression) or at rest
- Unexplained cough, particularly when lying down or which produces frothy pink sputum

- Paroxysmal nocturnal dyspnoea – being woken from sleep by severe breathlessness and coughing, which may produce pink frothy sputum and is improved by moving to an upright position
- Palpitation (awareness of persistent fast heart rate at rest). (National Institute for Health and Care Excellence 2019a)

Think Aorta (Aortic Dissection Awareness UK)

When aortic dissection occurs in a young woman, the underlying diagnosis should be assumed to be an inherited aortopathy until proven otherwise (Saving Lives, Improving Mothers' Care 2016)

A family history of sudden death of a young relative (aged less than 40) is important and may be an indication of inherited cardiac conditions (Saving Lives, Improving Mothers' Care 2019)

Anyone with a family history or genetic confirmation of aortopathy or channelopathy should be referred for cardiac assessment before pregnancy (Saving Lives, Improving Mothers' Care 2019)

Investigate and treat pregnant and postpartum women the same as non-pregnant women unless there is a clear reason not to (Saving Lives, Improving Mothers' Care Reports 2014-21)

Ensure that all clinical staff caring for pregnant or postpartum women, whatever the location of care, are aware of the concerning 'red flag' symptoms described in the RCP Acute care toolkit 15: Managing acute medical problems in pregnancy (Saving Lives Improving Mothers' Care 2021)

Pregnancy in women with a mechanical valve, especially in the mitral position, is associated with a high risk of maternal and fetal complications, which should be carefully discussed with the patient and family (2021 ESC/EACTS Guidelines for the management of valvular heart disease)

All women with pre-existing cardiac disease (congenital or ischemic) should be offered pre-pregnancy counselling (Saving Lives Improving Mothers' Care 2016) including contraceptive advice (Saving Lives Improving Mothers' Care 2019)

Recommendations for the management of atrial fibrillation during pregnancy:

- Immediate electrical cardioversion is recommended in case of haemodynamic instability or pre-excited atrial fibrillation
- Therapeutic anticoagulation with heparin or [warfarin] according to the stage of pregnancy is recommended for patients with atrial fibrillation (2020 ESC Guidelines for the diagnosis and management of atrial fibrillation)

5.2 Background

This report sees a welcome decrease in the overall rate of maternal cardiovascular death, which follows the 2016 MBRRACE-UK report when the importance of awareness of maternal heart disease was first raised (Knight, Nair et al. 2016). Psychiatric disorders and cardiovascular disorders are now responsible for the same number of maternal deaths in the UK; together these two causes represent 30% of maternal deaths occurring in the UK. Cardiovascular disease had been the leading cause of maternal death in the UK for more than 20 years and remains the leading cause of maternal death in other high resource settings (Creanga, Syverson et al. 2017). Women are dying largely from acquired heart disease, likely to be a result of a combination of the changing maternity population, with women entering pregnancy at older ages, with more co-morbid conditions such as obesity and hypertension, alongside specialist multidisciplinary care before and during pregnancy providing better quality care for women with known heart conditions. We now need to ensure that this similar quality of care is provided for women whose cardiac disease becomes evident for the first time during or after pregnancy.

5.3 The women who died

Between 2018-20 the deaths of 61 women from heart disease associated with, or aggravated by, pregnancy were reported to the Enquiry (Table 5.1). Of these, 34 occurred in the UK during pregnancy or within 42 days of the end of pregnancy. This represents a maternal mortality rate from cardiac disease in the UK of 1.62 per 100,000 maternities which is lower, but not significantly so, than the rate for 2015-17 (2.10 per 100,000 maternities) (RR 0.77, 95%CI 0.50-1.19) (Figure 5.1).

Figure 5.1: Maternal mortality from cardiac causes, UK: 1985-2020

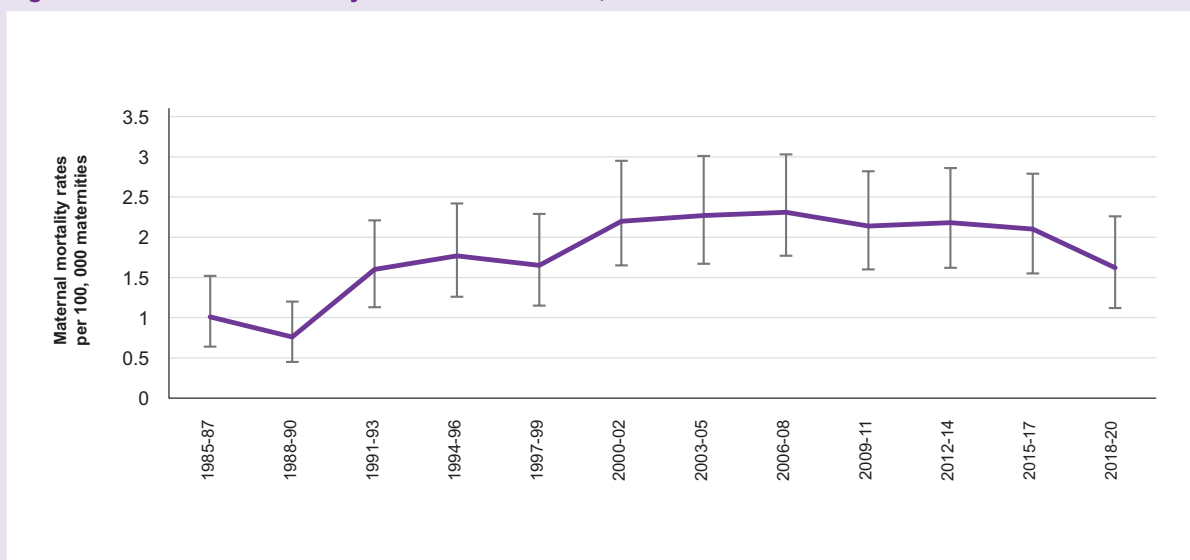


Table 5.1: Timing of maternal deaths due to cardiac causes in relation to pregnancy, UK and Ireland, 2018-20

Time period of deaths in the pregnancy care pathway	Total (N=61) Frequency (%)
Antenatal period/ still pregnant	9 (15)
Postnatal on day of delivery	11 (18)
Postnatal 1 to 42 days after delivery	15 (25)
Postnatal 43-91 days	5 (8)
Postnatal 92-182 days	9 (15)
Postnatal 183-273 days	10 (16)
Postnatal 274-364 days	2 (3)

Only 10% of women who died from cardiovascular causes were recognised to have a pre-existing cardiac problem (Table 5.2). Maternal mortality rates from cardiovascular disease generally increased with age, with women aged 40 or over at six times higher risk of death compared with women aged 25-29 (Table 5.3). Of particular note, almost half of women who died from cardiovascular causes were resident in the most deprived quintile of areas (Table 5.2), which is reflected in a two-fold higher mortality rate from cardiovascular disease compared to women living in the least deprived quintile of areas (Table 5.3).

Table 5.2: Medical, demographic and pregnancy related characteristics of women who died from a cardiac cause, UK and Ireland, 2018-20

Characteristics	Total (N=61) Frequency (%)
Age	
<20	0 (0)
20 – 24	10 (16)
25 – 29	10 (16)
30 – 34	16 (26)
35 – 39	14 (23)
≥ 40	11 (18)
Pre-existing cardiac problems	
Yes	6 (10)
No	54 (89)
Missing	1 (2)
Pre-existing health problems (excluding obesity)	
Yes	35 (57)
No	25 (41)
Missing	1 (0)
Ethnicity	
White European	42 (69)
Asian	10 (16)
Black	7 (11)
Other ethnicity	2 (3)
Woman's region of birth	
United Kingdom/Ireland	41 (67)
Outside UK/Ireland	15 (25)
Missing	5 (8)
Socioeconomic status (Index of Multiple Deprivation)	
First quintile (Least deprived / highest 20%)	8 (13)
Second quintile	5 (8)
Third quintile	6 (10)
Fourth quintile	8 (13)
Fifth quintile (Most deprived / lowest 20%)	29 (48)
Missing	5 (8)
Body mass index (BMI)	
<18	1 (2)
18-24	18 (30)
25-29	16 (26)
≥30	22 (36)
Missing	4 (7)
IVF pregnancy	
Yes	2 (3)
No	59 (97)
Multiple pregnancy	
Yes	2 (3)
No	59 (97)
Previous caesarean section	
Yes	16 (26)
No	44 (72)
Missing	1 (2)
Previous caesarean numbers (among women who had a previous caesarean section)	
1	14 (88)
≥2	2 (13)

Table 5.3: Medical, demographic and pregnancy related characteristics of women who died from a cardiac cause, UK and Ireland, 2018-20

	Total maternities 2018-20	Total deaths*	Rate per 100,000 maternities	95% CI	Relative risk (RR)	95% CI
Age						
<20	61,285	0	0			
20 – 24	297,996	10	3.36	1.61 to 6.17	2.02	0.75 to 5.40
25 – 29	601,217	10	1.66	0.80 to 3.06	1 (Ref)	
30 – 34	751,442	16	2.13	1.22 to 3.46	1.28	0.55 to 3.16
35 – 39	454,269	14	3.08	1.68 to 5.17	1.85	0.77 to 4.66
≥ 40	108,327	11	10.15	5.07 to 18.17	6.11	2.35 to 16.03
IMD Quintiles (England only)						
I (Least deprived / highest 20%)	252,869	7	2.77	1.11 to 5.70	1 (Ref)	-
II	287,258	4	1.39	0.38 to 3.57	0.50	0.11 to 1.98
III	319,035	5	1.57	0.51 to 3.66	0.57	0.14 to 2.07
IV	376,393	8	2.13	0.92 to 4.19	0.77	0.24 to 2.49
V (Most deprived / lowest 20%)	445,465	27	6.06	3.99 to 8.82	2.19	0.93 to 5.96

*52 deaths occurred in England but IMD information was not available for one woman

Overall, a fifth of women (20%) died from ischaemic causes, and a quarter from myocardial disease/cardiomyopathy (25%) (Table 5.4 and Figure 5.2).

Figure 5.2: Causes of cardiovascular deaths, UK and Ireland 2018-20

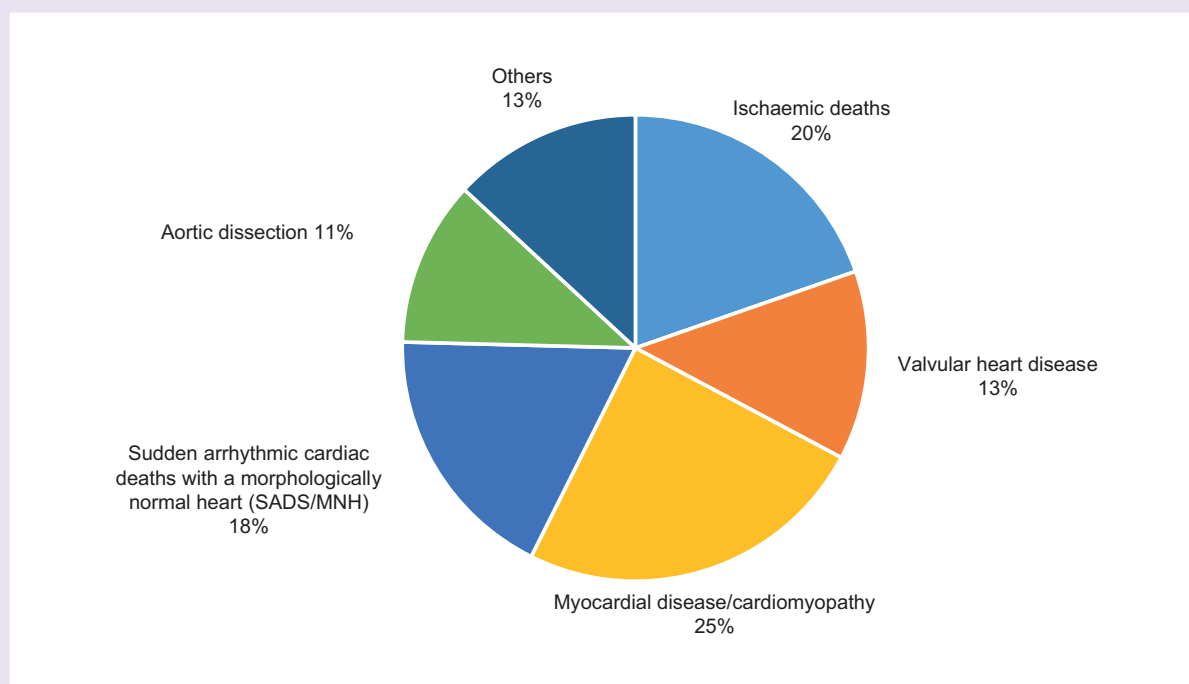


Table 5.4: Sub-classification of cardiac deaths for whom information was available for an in-depth review, UK and Ireland, 2018-20

Sub-classification	Number of deaths	Percentage of total (n=61)
Ischaemic deaths	12	20
<i>Atherosclerosis</i>	11	
<i>Coronary artery dissection</i>	1	
Valvular heart disease	8	13
<i>Valve disease</i>	5	
<i>Endocarditis</i>	3	
Essential hypertension	0	0
Myocardial disease/ cardiomyopathy	15	25
<i>Dilated cardiomyopathy (DCM)</i>	1	
<i>Left ventricular hypertrophy (LVH) idiopathic and in morbid obesity</i>	5	
<i>Myocarditis</i>	3	
<i>Peripartum cardiomyopathy (PPCM)</i>	3	
<i>Defined cardiomyopathy</i>		
<i>Hypertrophic cardiomyopathy (HCM)</i>	1	
<i>Arrhythmogenic cardiomyopathy (ACM)</i>	0	
<i>Ventricular disease (not otherwise specified)</i>	2	
Sudden arrhythmic cardiac deaths with a morphologically normal heart (SADS/MNH)	11	18
Aortic dissection	7	11
Others	8	13
<i>Pulmonary arterial hypertension</i>	4	
<i>Undetermined cardiac disease</i>	3	
<i>Congenital heart disease not included elsewhere</i>	1	
TOTAL	61	

5.4 Overview of care and new lessons to be learned

Overall messages

Symptoms and signs

An older white British woman was experiencing cough and wheeze when visited at home during the week after she gave birth. Her community midwife attributed this to the inhalational analgesia used during labour. The following week she presented to hospital with increasing symptoms, severe cardiomyopathy was diagnosed and she was admitted. Her condition deteriorated but her care was not escalated. She died a few days later. There was no post-mortem and the final definitive cardiac diagnosis was not clear. Cardiac genetic tests were not performed.

It is likely that this woman's initial cough and wheeze were due to heart failure and pulmonary oedema (cardiac asthma), and it is possible that referral to the hospital at that point might have resulted in a different outcome. Wheeze can be a manifestation of pulmonary oedema. When wheeze is new or when thought to be related to asthma but does not settle with asthma management, pulmonary oedema should be considered. Six of the women who eventually died from myocardial causes had complained about cough, wheeze and/or shortness of breath. Two further women were treated for suspected lower respiratory tract infection.

A multiparous white British woman collapsed in the first trimester whilst running for the bus. Following review in the emergency department her ECG was said to be abnormal, but the collapse was considered to be vasovagal and there was no follow up. She had several further presentations to primary care, midwifery and the emergency department with increasing shortness of breath and dizziness which she had not experienced with her previous gestations, and

these were also attributed to pregnancy. In the third trimester she also experienced haemoptysis. Investigations including CTPA and echocardiogram led to the diagnosis of pulmonary arterial hypertension; she was quickly transferred to the regional specialist centre where she received high standard multidisciplinary management. A few minutes after a planned caesarean birth she had a cardiac arrest and could not be resuscitated.

Syncope during exertion is not physiological and should not be attributed to pregnancy. Exertional syncope should always be investigated further as it suggests an inability to increase cardiac output. All healthcare professionals who provide care for pregnant women should be familiar with Royal College of Physicians recommendations for managing women with acute medical presentations (Royal College of Physicians 2019). Acute medicine and obstetrics should each have a lead to liaise across the two specialties to optimise care and care pathways (Royal College of Physicians 2019, Mackillop 2021).

A raised respiratory rate, chest pain, persistent tachycardia and orthopnoea are important signs and symptoms of cardiac disease which should always be fully investigated. The emphasis should be on making a diagnosis, not simply excluding a diagnosis. (Knight, Nair et al. 2016)

Heart failure in cardiomyopathy can develop rapidly and guidelines for the management of acute heart failure and cardiogenic shock apply. For rapid diagnosis and decision-making, a pre-specified management algorithm and expert interdisciplinary team are crucial (2018 ESC Guidelines for the management of cardiovascular diseases during pregnancy) (Regitz-Zagrosek, Roos-Hesselink et al. 2018)

Wheeze can be due to pulmonary oedema. Consider wheeze which does not respond to standard asthma management and exertional syncope as red flag symptoms of cardiovascular disease in addition to orthopnoea and chest pain

N

Postpartum blood pressure control

A young, obese, white British woman with a history of antiphospholipid syndrome and previous thrombosis was commenced on dalteparin and aspirin in pregnancy. She developed early onset pre-eclampsia and had a caesarean birth in the early third trimester. She declined to recommence warfarin whilst breast feeding and remained on dalteparin for several months. On various occasions postnatally both in outpatient and GP appointments the woman's blood pressure was documented to be high but it was not treated. She developed chest pain and was reviewed by the GP. She was reassured that the pain was likely musculoskeletal after a normal ECG. A few months postnatally the woman collapsed in the street from a cardiac arrest. Cardiac catheterisation identified an occluded coronary artery. Life support was withdrawn and she died from a hypoxic brain injury.

The anticoagulation advice for this woman postpartum was fragmented with confusion in primary care and a lack of a structured plan on discharge from hospital regarding anticoagulation and hypertension management. Warfarin is safe to take while breast feeding, and the woman should have been reassured.

Good control of blood pressure postpartum is paramount, for both short and long term health outcomes. The NICE Clinical Knowledge Summary for hypertension in pregnancy gives guidance on how to manage women with hypertensive disorders of pregnancy (National Institute for Health and Care Excellence 2022). In this instance, for a woman with gestational hypertension, medication should have been restarted when her blood pressure was above 150/100 with a target of reducing it to under 140/90.

Women [who have had confirmed pre-eclampsia] should be given an individual [postpartum] care plan on hospital discharge that includes:

- **Who will provide follow-up care, including medical review if needed.**
- **Frequency of blood pressure monitoring.**
- **Thresholds for reducing or stopping treatment.**

NICE Clinical Knowledge Summary Hypertension in pregnancy (National Institute for Health and Care Excellence 2022b)

Acute coronary syndrome can occur in young women. This woman had many predisposing factors for acute coronary syndrome but it is likely that her age and sex caused confirmation bias when the clinician considered the cause of her chest pain.

Investigation of tachycardia and palpitations

A multiparous Asian woman who did not speak English was diagnosed with anaemia at booking and given parenteral iron and B12 supplements with effect. She reported intermittent tachycardia during pregnancy, this was attributed to anaemia and not investigated further. She was found dead in bed at term due to a sudden arrhythmic cardiac death with a morphologically normal heart (SADS/MNH).

As noted in previous MBRRACE-UK reports (Knight, Nair et al. 2016, Knight, Bunch et al. 2019), there were several women with a persistent tachycardia which was not investigated. Palpitations are common in pregnancy; while they are frequently benign, some will represent a significant arrhythmia. Pregnant women presenting with palpitations require a careful assessment to determine whether their symptoms can be attributed to normal physiology or require further investigation for pathology. Women with a very clear history of an awareness of a physiological rise in heart rate (in the absence of a significant tachycardia on examination) or the occasional ectopic beat may not require further investigation. If this is not clear from the history, or if symptoms are severe or persistent, systematic investigations should be carried out to establish a cause.

A persistent sinus tachycardia is a 'red flag' and should always be investigated, particularly when there is associated breathlessness. (Saving Lives, Improving Mothers' Care 2019) (Knight, Bunch et al. 2019)

Take a cardiac-specific history and suspect heart failure if there is not another likely cause of any of the following symptoms:

- **Breathlessness when lying down (ruling out aortocaval compression) or at rest**
- **Unexplained cough, particularly when lying down or which produces frothy pink sputum**
- **Paroxysmal nocturnal dyspnoea – being woken from sleep by severe breathlessness and coughing, which may produce pink frothy sputum and is improved by moving to an upright position**
- **Palpitation (awareness of persistent fast heart rate at rest).**

NG121 Intrapartum care for women with existing medical conditions or obstetric complications and their babies (National Institute for Health and Care Excellence 2019a)

Aortic dissection

Think Aorta

A young woman with a previously uncomplicated pregnancy presented to the emergency department at term complaining of sudden onset, central chest pain radiating to her back and up to her jaw whilst out shopping. The pain in her back was at the level of her bra. She felt worse pain if she tried to lie down and could barely do this. She had normal examination, observations, ECG, bloods (including troponin and blood gases) and was reviewed by an emergency department consultant who felt the pain was not cardiac related. She did not have a chest x-ray. The emergency department consultant attributed the pain to early labour and recommended discharge. A second consultant agreed. A midwife did not feel she was in labour. Intravenous paracetamol and Gaviscon did not help her pain but it was partly relieved by morphine. A fetal tachycardia occurred and her pain was then thought to be related to an abruption. She had an induced birth and the pain settled and she was discharged the next day. The following day she collapsed and could not be resuscitated despite thrombolysis. Her aortic dissection was diagnosed at post-mortem.

Professionals did not listen to this woman, her husband or midwife. The pain was not at all typical of labour but professionals wanted to find an obstetric cause. The woman herself knew this was not early labour or else she would have presented to the midwifery led unit. No obstetric opinion was sought by either emergency department consultant

because this was not in keeping with their policy that women needing review are transferred to the maternity unit. This should not have stopped the emergency department consultant picking up the telephone and discussing the woman with an obstetrician. A chest x-ray may have helped with the diagnosis.

At the consultant led unit she had an artificial rupture of membranes for induction following possible abruption, yet she had clear liquor, so had not had a notable abruption. Again, there was not joined up thinking. This is a rare diagnosis and event and those involved did not think of aortic dissection. The symptoms were in keeping with that diagnosis and not labour. It is likely that the original presentation was the initial dissection and at the point of cardiac rupture she arrested.

Without intervention, survival falls every hour after dissection occurs (Mehta, Suzuki et al. 2002), and considering the diagnosis to enable appropriate investigations remains the most important message. Of the seven women who died from aortic dissection, two were presumed to have renal colic, and two, including this woman, were presumed to have an abruption. Considering a cardiac differential diagnosis is imperative in these situations.

Think aorta (Aortic dissection awareness UK)

Family history

A woman collapsed and died from an aortic dissection at term. A thorough review identified that at booking she had described that her sister had had a heart condition but that she herself had been tested and cleared. Her sister had had an aortic dissection but the woman had only had a single echocardiogram for screening.

A single echocardiogram does not exclude a familial aortopathy or tendency to aortic dissection. There does not appear to have been a genetics opinion or gene panel performed. The woman was appropriately asked about her family history but reported that she had been cleared of risk (as was her understanding). The echo in 2014 was actually mildly abnormal. We do not know whether her aorta was dilated before it dissected, but had she had further routine screening prior to pregnancy, a cardiac obstetric opinion and imaging in pregnancy, important aortic dilatation if present would have been identified and could have been treated and the risk managed. Having given a history that she had been tested and cleared, the pregnancy management was appropriate.

When aortic dissection occurs in a young woman, the underlying diagnosis should be assumed to be an inherited aortopathy until proven otherwise.

Saving Lives, Improving Mothers' Care 2016 (Knight, Nair et al. 2016)

A family history of sudden death of a young relative (aged less than 40) is important and may be an indication of inherited cardiac conditions.

Anyone with a family history or genetic confirmation of aortopathy or channelopathy should be referred for cardiac assessment before pregnancy.

Saving Lives, Improving Mothers' Care 2019 (Knight, Bunch et al. 2019)

Myocardial ischaemia

Twelve women died from myocardial ischaemia, 11 from atherosclerosis and 1 from spontaneous coronary artery dissection (SCAD). This compares to 20 deaths in 2015-17 (6 from SCAD). Although not a statistically significant reduction, this may represent raised awareness of the symptoms and signs of cardiac disease in pregnant and post-partum women since it was first highlighted in the 2016 report.

Risk factors

A grand-multiparous obese hypertensive woman in her late forties with several medical and mental health co-morbidities who smoked conceived spontaneously and was booked for consultant care. She received aspirin, appropriate thromboprophylaxis and had multidisciplinary team follow-up. She developed pre-eclampsia and had an induced late preterm birth. She collapsed at home and died three months postpartum from left ventricular failure following an acute myocardial infarction thought to have occurred a few weeks earlier.

This woman had multiple risk factors for ischaemic heart disease, including both lifestyle and medical factors. While assessors felt she received good care during pregnancy, there is no evidence anyone discussed her cardiovascular risk or considered providing advice on symptoms and signs of heart disease. Pregnancy and the postpartum period is an opportunity for lifestyle advice and preventive intervention and being aware of the risk factors for cardiovascular disease is important (Box 5.1). Ischaemic heart disease is often overlooked as a diagnosis in the maternity population and there needs to be a high index of suspicion in order to promptly detect and effectively institute treatments.

Box 5.1: Risk factors for ischaemic heart disease

- Older age
- Smoking
- Obesity
- Diabetes
- Hypertension and/or pregnancy hypertensive disorders
- Family history of premature coronary disease
- Hypercholesterolaemia

Symptom awareness

A woman with normal BMI who did not smoke had an uneventful pregnancy. Her father had died from myocardial infarction at 50 years old. At eight months postnatally she presented on three separate occasions within one week with chest pain radiating to her left arm. She was diagnosed with acute coronary syndrome and non-STEMI and transferred to the catheter lab. She was found to have spontaneous coronary artery dissection and arrested during the procedure. She was transferred to theatre for surgery but died the same day.

This woman had presented on three occasions before the diagnosis was made. This emphasises again the messages made in previous reports concerning 'red flags' and the symptoms and signs of heart disease. The common symptoms associated with ischemic heart disease can develop over a short time frame and necessitate immediate attention. Women with young babies and other children do not have time to present repeatedly to the emergency department unless there is something wrong. A repeat presentation should prompt senior, multidisciplinary review.

Box 5.2: Chest pain 'red flags' to be aware of

- Pain requiring opioids
- Pain radiating to arm, shoulder, back or jaw
- Sudden onset, tearing or exertional chest pain
- Associated with haemoptysis, breathlessness, syncope or abnormal neurology
- Abnormal observations

RCP Toolkit: Care for the acutely ill pregnant woman 2019 (Royal College of Physicians 2019)

Investigate and treat pregnant and postpartum women the same as non-pregnant women unless there is a clear reason not to.

Saving Lives, Improving Mothers' Care Reports 2014-21

Thromboprophylaxis

Two extremely obese women who had significant bleeding should have received postpartum thromboprophylaxis according to RCOG guidelines, but their risk was not correctly assessed and no low molecular weight heparin was prescribed. Both collapsed and died from coronary thrombosis a few days after hospital discharge. Similar to the woman described above, these women had clear risk factors for ischaemic heart disease. Risk factors for ischaemic heart disease have significant overlap with those associated with venous thromboembolism. While correct thromboprophylaxis is unlikely to have prevented these women's myocardial infarctions, it is important to be aware of the common risk factors and raise awareness of the symptoms and signs of cardiac disease amongst women who require thromboprophylaxis due to obesity.

Be aware of the common risk factors for heart disease and venous thromboembolism, such as extreme obesity, and consider on an individual basis whether women should be made aware of the symptoms and signs of heart disease as well as those of venous thromboembolism **N**

Spontaneous Coronary Artery Dissection (SCAD)

Only one woman died from SCAD in this triennium. A recent analysis, including 13 women who died from SCAD and whose deaths were considered in previous reports, suggested that the highest risk period for pregnancy-associated SCAD was in the six months immediately postpartum, with the highest number of women affected in the first month postnatally (Chan, Premawardhana et al. 2022). Rapid recognition and early intervention remain the most important responses.

Myocardial disease

Fifteen women died from myocardial disease, with left ventricular hypertrophy either alone or in association with obesity and hypertension, the most commonly seen myocardial condition (5 women). Three other women died from cardiac causes where the quality of the postmortem was insufficient to delineate the exact cardiac cause; myocardial disease was among the differential diagnoses for these three women.

Awareness

A woman of Asian origin had an uncomplicated birth. A few weeks later she collapsed after several days of nonspecific symptoms including increasing back pain, breathlessness, palpitations and worsening exhaustion. Emergency services attended quickly. Following transfer to the emergency department urgent investigations were carried out including echocardiography and a CT scan and viral myocarditis was considered the most likely cause of her heart failure. Her condition deteriorated rapidly, and despite inotropic support she died.

This woman had excellent care during the short acute presentation that led to her death. She had a number of 'red flag' symptoms in the few days before her collapse. Whilst earlier presentation may not have prevented her death, this emphasises again the importance of making women aware of the significance of symptoms such as orthopnoea.

Recognition and response

An Asian woman had an uncomplicated term birth. She had no significant medical history other than occasional anxiety attacks. In the postnatal period she made several contacts with her GP surgery. She reported a recurrence of anxiety attacks and was prescribed propranolol which did not help. She had a face to face consultation on the third occasion, tachycardia, hypoxia and basal crepitations were noted and oral antibiotics prescribed for a chest infection. A few days later she presented to the emergency department with vomiting, dehydration and three week history of shortness of breath. Cardiac ultrasound identified severe heart failure with pulmonary oedema due to peripartum cardiomyopathy and she was transferred to a regional cardiac centre. Subsequent escalation of treatment was unsuccessful, and she died a few weeks later.

A feeling of anxiety may be a manifestation of hypoxia and of heart disease, and should not be automatically be assumed to be related to mental health, especially if a previously successful intervention is unhelpful. In the postnatal period, new or deteriorating symptoms may have a pregnancy-related aetiology. It is unclear if a full history was taken to delineate her symptoms before her final presentation, or if the potential importance of hypoxia in a young woman was appreciated. It is worth noting that this woman's care may have been impacted by pandemic-related changes to services. Her remote prescription for propranolol, slow access to her GP, the lack of escalation to maternity or acute settings, and her later presentation to the emergency department may all have been as a consequence of the pandemic and delayed her diagnosis. Assessors felt her options for transfer for more advanced care may also have been impacted.

All healthcare practitioners caring for pregnant and recently delivered women should be familiar with the range of medical disorders including peripartum cardiomyopathy that can occur.

Ensure that all clinical staff caring for pregnant or postpartum women, whatever the location of care, are aware of the concerning 'red flag' symptoms described in the RCP Acute care toolkit 15: Managing acute medical problems in pregnancy.

Saving Lives Improving Mothers' Care 2021 (Knight, Bunch et al. 2021b)

Brain Natriuretic Peptide (BNP)

BNP (Brain Natriuretic Peptide) and NT-pro BNP (N-terminal BNP) are biomarkers (neurohormones) that are widely used in the diagnosis, management and assessment of progress of treatment of heart failure of all types, both in the elective and emergency settings. Normal levels of these biomarkers throughout pregnancy have been established over the last decade (Hameed, Chan et al. 2009, Furenas, Eriksson et al. 2020) and pregnancy specific reference intervals have also now been defined (Dockree, Brook et al. 2021). A systematic review and meta-analysis of the diagnostic accuracy of BNP and N-terminal BNP in 13 studies was undertaken by Sheikh et al (Sheikh, Ostadrahimi et al. 2021). Taken together, these studies suggest that measurement of serum levels of BNP or NT-pro BNP can be used as a diagnostic aid to assist in the investigation of women with suspected cardiac disease in pregnancy, as is standard practice in the non-pregnant population (McDonagh, Metra et al. 2021). Assessors felt that there was the potential for use of BNP or NT-pro BNP measurement to aid diagnosis for several women, including the woman whose care is described above.

Develop guidance for the use of Brain Natriuretic Peptide measurement in pregnancy

N

Benefits of treatment

An older ethnic minority woman with several medical co-morbidities, including epilepsy, declined to take her usual medication while pregnant. At booking she had hypertension, but did not wish to receive treatment and upheld this decision also when hypertension became more severe. Multiple assessments of capacity were carried out throughout her pregnancy. By term she had severe untreated hypertension and the fetal weight was estimated to be on the 10 percentile for gestational age. She was advised hospital admission and induction, but declined and wished to wait for spontaneous labour. She collapsed at home a few days later as a result of hypertensive heart disease and could not be resuscitated.

This woman's care illustrates the challenges staff may encounter providing counselling about treatment and consequence of non-compliance with treatment recommendations in pregnancy. Multiple individuals were involved in caring for this woman, and she also moved care if she was unhappy and felt she was not met with respect. This provides further evidence for the need to engage with third sector organisations to address advocacy and support for ethnic minority women to increase understanding of their individual beliefs about illness, disease and pharmaceutical medications.

While the risks of medications were discussed, the risks of untreated disease (in this case epilepsy and hypertension) were not adequately addressed. Concerns over medication effects on the unborn child need to be balanced with the dangers of not or under-treating a condition which can also lead to perinatal or maternal morbidity or mortality. Training of doctors, nurses, midwives and AHPs, especially for those working outside maternity services is required to ensure this balance is understood and clearly communicated to pregnant women to allow them to make an informed decision regarding their medication.

Distance and tertiary care

An older White British woman with a complex medical and mental health history including known cardiac disease presented with an unplanned pregnancy. There was no documentation of pre-pregnancy or contraception counselling following her cardiac diagnosis. She was short of breath at rest throughout most of the pregnancy. In the early third trimester she was admitted with breathlessness and palpitations to her local hospital, echocardiography identified cardiac failure which was treated. Her cardiac function declined further and she was transferred to the regional cardiac centre. There was good multidisciplinary team involvement and she had an uneventful induced birth at term. Contraception was provided. Although she requested an early discharge to be near her family, appropriate investigations were undertaken prior to discharge and she had a plan for follow-up. She died from her cardiomyopathy a few weeks postpartum.

This woman had a significant cardiac condition and multiple co-morbidities. It is not clear that she had received pre-pregnancy advice concerning the potential impact of pregnancy on her cardiac condition, nor had she received contraceptive advice. On initial presentation to the emergency department the severity of her condition was not recognised and there were delays in calling the maternity medical team. However, once the significance of her condition was recognised, she was cared for appropriately at her local hospital and her care was transferred in a timely manner to a specialist centre when she deteriorated. The tertiary centre team made a plan of care for the antenatal, intrapartum and postnatal period. This undoubtedly improved the chances of a good pregnancy outcome, however the location of the specialist centre far away from her home meant she was discharged early wishing to be closer to her family. The reviewers felt that this woman's care was an excellent example of multidisciplinary involvement with appropriate planning and management, but noted the importance of ensuring that new networked maternal medicine services can deliver individualised care for women irrespective of their distance from the tertiary centre.

Ensure maternal medicine networks and their equivalents in the devolved nations and Republic of Ireland can provide appropriate expertise and supervision for all women, including those in rural/remote areas. N

Sudden arrhythmic cardiac death with a morphologically normal heart (SADS/MNH)

Eleven women (18%) died from SADS/MNH during 2018-20 in the UK and Ireland, a proportion unchanged from 2015-17. As SADS/MNH is thought to be a sudden death as a result of an arrhythmia, prodromal symptoms and family history can be important. One of the women who died reported palpitations in pregnancy and another had a relevant family history of sudden cardiac death. Some genetic syndromes are known to underlie SADS/MNH, emphasising the importance of retaining tissue for potential family screening, but this was infrequent, as described in the pathology section.

Valve disease

Pre-pregnancy counselling and pregnancy termination

An older woman with a past history of metallic mitral valve replacement and warfarin anticoagulation had a confirmed pregnancy at 6 weeks. She was unsure if she should continue the pregnancy. She was seen for specialist haematology assessment and the warfarin was changed to tinzaparin. Termination of pregnancy was discussed (via an interpreter), but before this could take place she had a thromboembolic stroke. Thrombus was identified on the mitral valve. She deteriorated and died a few months later.

This woman had been in regular contact with her GP prior to pregnancy (monitoring her anticoagulation) but there was no documentation about contraception or pre-conception care. The woman's daughter had been acting as a translator and there may have been a reluctance to discuss aspects of care "through" her. All women on warfarin should be offered effective contraception and a preconception appointment with a specialist should be offered.

Therapeutic anticoagulation during pregnancy is of utmost importance to avoid complications in these patients, bearing in mind that no anticoagulation regimen is ideal and management will require a careful balance between maternal and fetal risks (Vahanian, Beyersdorf et al. 2021).

For this woman who had presented at 6 weeks gestation while on warfarin and opting for a termination, continuation of the warfarin would have limited her risk of adverse outcome.

Be aware that women using oral anticoagulation with warfarin may be more safely managed without transition to low molecular weight heparin treatment when having an early termination of pregnancy. N

All women with pre-existing cardiac disease (congenital or ischemic) should be offered pre-pregnancy counselling (Saving Lives Improving Mothers' Care 2016) including contraceptive advice (Saving Lives Improving Mothers' Care 2019)

Anticoagulation

A woman with a mechanical mitral valve replacement had a planned pregnancy. She had received pre-pregnancy advice. Management of her anticoagulation was complex with bleeding episodes and subsequently a valve thrombosis in the third trimester when warfarin was stopped and she had a period of subtherapeutic anticoagulation with low molecular weight heparin. She was stabilised and had a caesarean birth but died following an emergency valve replacement.

The management of anticoagulation for mechanical heart valves in pregnancy is complex and needs to be individualised. From a previous MBRRACE report (Knight, Bunch et al. 2018) and UKOSS publication (Vause, Clarke et al. 2017), women with mechanical heart valves have an approximately 50% chance of severe morbidity, most commonly serious and significant bleeding.

This woman's care illustrates the particular challenges around swapping from one type of anticoagulation to another. At 34 weeks her warfarin was stopped and LWMH commenced, however there was a period of 48 hrs when she had subtherapeutic LWMH and it was soon after this that an echocardiogram demonstrated an increased gradient across her mitral valve in keeping with valve thrombus. Unless at very high clot risk, the use of LWMH throughout pregnancy could minimise risks associated with transition between warfarin and LWMH. It is also important to note that thrombolysis can be considered for the management of valve thrombosis in women who are critically ill and in whom valve replacement surgery is considered high-risk or is not immediately available (Vahanian, Beyersdorf et al. 2021).

Pregnancy in women with a mechanical valve, especially in the mitral position, is associated with a high risk of maternal and fetal complications, which should be carefully discussed with the patient and family. 2021 ESC/EACTS Guidelines for the management of valvular heart disease (Vahanian, Beyersdorf et al. 2021)

Endocarditis

Assessors noted that, in common with many of the women whose care is described in other chapters of this report, the women who died from endocarditis had multiple vulnerabilities, and may have benefitted from a single point of contact in both antepartum and postpartum care.

Atrial fibrillation

An Asian woman with known moderate/severe mitral regurgitation in whom valve replacement was being considered developed fast atrial fibrillation with haemodynamic compromise later in pregnancy. Her heart rate and rhythm was hard to control. Her cardiologists decided that anticoagulation was not indicated. She underwent induction of labour and immediately post delivery experienced another episode of fast atrial fibrillation which was treated on the coronary care unit. She was discharged a few days later to enable her to be at home with her baby, but returned to the emergency department in extremis in pulmonary oedema and atrial fibrillation after two weeks. She had chest pain, cough and breathlessness since discharge but had declined admission after a previous emergency department visit. An assumption was made that she had a pulmonary embolism but her left ventricular failure was diagnosed after she collapsed. She died shortly afterwards.

Assessors felt that this woman's care was compromised at many points by the fact that she was pregnant or postpartum, and a non-English speaker. It is unclear why neither electrical cardioversion nor anticoagulation were considered when she first presented in pregnancy; European Society for Cardiology guidelines are clear that both are recommended. Issues with poor understanding and miscommunication (medicines, appointments, date of induction) were clear throughout her notes; translation was undertaken by her husband or a series of staff but rarely an interpreter. It was commented that her baby could not be accommodated on the medical ward which was a possible reason for her declining admission. No consideration seems to have been made to providing her with the care she needed in another location.

Recommendations for the management of AF during pregnancy:

- **Immediate electrical cardioversion is recommended in cases of haemodynamic instability or pre-excited AF**
- **Therapeutic anticoagulation with heparin or [warfarin] according to the stage of pregnancy is recommended for patients with AF**

2020 ESC Guidelines for the diagnosis and management of atrial fibrillation (Hindricks, Potpara et al. 2020)

Pulmonary arterial hypertension

A multiparous woman with a history of postpartum haemorrhage but no cardiac history attended the emergency department in the second trimester with haemoptysis on three successive days. A Chest X Ray was reported as normal, and a CTPA reported focal lung infection. Although ECG features of right heart strain were recorded, an echocardiogram was not performed. She gave birth at term but a week later she was readmitted with severe breathlessness and vaginal bleeding; echocardiography confirmed impaired right ventricular function and pulmonary hypertension. She died shortly afterwards. Post mortem demonstrated features of primary pulmonary hypertension.

Independent review of her initial radiology imaging confirmed that features of pulmonary arterial hypertension were present at that stage.

Four women died as a result of pulmonary hypertension. Pulmonary hypertension defines a heterogeneous group of disorders with differing causes and therefore treatment is directed to the underlying cause, if known (Humbert, Kovacs et al. 2022). However, no single clinical feature or investigation taken in isolation can predict the outcome and prognosis of pulmonary hypertension (Yaghi, Novikov et al. 2020). Acutely decompensated pulmonary hypertension, as in this woman, can be triggered by a wide number of factors (Savale, Weatherald et al. 2017). In the

setting of pregnancy (Thomas, Yang et al. 2017, Afify, Kong et al. 2022), changes in haemodynamics during and after delivery (fluid shifts or blood loss), or thrombosis, for example, can precipitate acute pulmonary hypertensive crises with a high mortality.

If earlier diagnosis had been made when the woman first presented, appropriate referral for tertiary investigation and intervention may potentially have made a difference to her outcome.

5.5 Pathology in maternal cardiac deaths

Aortic dissection

Esther Youd

Seven women died from aortic dissection in this period. Five were of white European ethnicity. Their ages ranged from 21-43 years and BMIs 19-28kg/m². The stage of pregnancy ranged from the first trimester to more than six months postpartum. Two women had a prior medical history of hypertension, and one of those had features of hypertensive heart disease at autopsy.

The massive cardiovascular changes associated with pregnancy may be a factor in the pathogenesis of aortic dissections, particularly in late stage pregnancy or early post partum, however, inheritable conditions including connective tissue disorders such as Marfan syndrome, Loeys Dietz and Ehlers Danlos syndrome and other inheritable syndromes such as familial thoracic aortic aneurysm and dissection are important causes in this patient group, and dissections associated with connective tissue disorders can occur at any stage of pregnancy.

An autopsy was carried out in five women. In the remaining two instances the women presented to hospital, and were diagnosed with aortic dissection and had surgical treatment, but subsequently died. Whilst an autopsy was not required to establish the cause of death, it may have been useful to allow histological examination of the aorta and retention of genetic material for potential future family screening.

Of the five women who had an autopsy, histological assessment of the aorta was carried out in all (good practice), however, the histology description was very limited in four of five women, with little consideration of medial degeneration features which might suggest an inheritable condition (mucoid extracellular matrix accumulation, elastic fibre fragmentation/thinning/loss, smooth muscle cell nuclei loss, laminar medial collapse, medial fibrosis) (Stone, Bruneval et al. 2015, Halushka, Angelini et al. 2016). Whilst these features are not specific for any one disease, their description and evaluation of severity can help distinguish the more likely aetiology.

A morphological description of the aortic valve is important, as bicuspid aortic valve may be associated with aortic dissection, and is the most common inherited cardiac condition in the UK. In this series, in four of the five women the valve was described as “normal” but without specific comment on the number of valve leaflets. There was no comment on the aortic valve morphology in one woman.

When encountering aortic dissection at autopsy, particularly in the young, retention of spleen (or similar suitable material) for genetic testing is important. In this series in only one woman was the spleen retained, with subsequent genetic testing confirming Ehlers Danlos syndrome as the underlying genetic cause. In one woman the autopsy description includes some morphological features that might have pointed towards Marfan syndrome, however, there was no comment on the palate and only limited histological description, with no retention of genetic material, potentially a missed opportunity to identify an important inheritable condition.

Take home message for pathologists:

- **Histology evaluation of the aorta is important to try to distinguish features of connective tissue disorders from features of hypertension and other acquired aetiologies (see consensus statements from the Society for Cardiovascular Pathology and the Association for European Cardiovascular Pathology) (Stone, Bruneval et al. 2015, Halushka, Angelini et al. 2016)**
- **Standard special stains include EVG to evaluate elastin fragmentation, and alcian blue to evaluate mucoid extracellular matrix accumulation**
- **In all cases of aortic dissection a sample of spleen should be retained (or other appropriate sample for the local genetics laboratory) for potential genetic testing, and unless a non-heritable cause is identified, the family should be referred to the local cardiologist or geneticist for consideration of screening**
- **The morphology of the aortic valve should be specifically described (bicuspid or tricuspid)**

Peripartum cardiomyopathy

Samantha Holden

A diagnosis of peripartum cardiomyopathy was given by the referring pathologist / clinical team for seven women. Following review by the panel, this was only considered the true diagnosis in three women. The three women with peripartum cardiomyopathy (PPCM) were aged between 22 and 31 years of age, two of Caucasian origin, all with a BMI at booking below 30kg/m². All three had a clinical diagnosis of PPCM made and they died between three weeks and four months after giving birth. A post mortem examination was performed for two women, although the description of the heart histology was not extensive in either.

One of the other women had a clinical diagnosis of PPCM but there was a differential diagnosis of myocarditis. No post mortem examination was undertaken so the final diagnosis was considered unclear by the panel.

The three women who were not considered to have PPCM highlight important learning points. One woman died suddenly five months post partum with no previous history. She had right ventricular dilation which was referred to by the reporting pathologist as 'right ventricular cardiomyopathy (peripartum)'; this is not an entity which is recognised. There were no clinical features to suggest peripartum cardiomyopathy and the panel's view was this was a sudden arrhythmic cardiac death.

Two further women diagnosed as having peripartum cardiomyopathy were felt by the panel to have hypertensive heart disease – in both patients their booking BMI was over 45kg/m² and there were no clinical features to suggest peripartum cardiomyopathy. It should be noted one of these cases was referred for specialist opinion but the diagnosis of peripartum cardiomyopathy was still given.

Peripartum cardiomyopathy is rare and relies on clinical diagnosis rather than the pathology. More common causes of a large heart, including genetic cardiomyopathy, hypertension or obesity-associated cardiomegaly, should be considered, rather than assuming all large hearts in pregnancy are due to peripartum cardiomyopathy. Histology of the myocardium in several of the autopsies was not extensive; appropriate sampling of the myocardium is necessary in all instances. This over-diagnosis of PPCM seems to reflect the assumption we see in other areas of this report to attribute conditions to pregnancy and a lack of appreciation of case definitions by pathologists.

SADS/MNH

Sebastian Lucas

There are ongoing national initiatives to identify people with inherited cardiac disease in order to prevent future deaths, particularly among the young (Sheppard 2022). In maternity, this includes the standard cardiomyopathies (hypertrophic, arrhythmogenic right ventricular), unexplained left ventricular hypertrophy, dissection of the aorta, and sudden arrhythmic cardiac death with morphologically normal heart (SADS/MNH). All these syndromes are known to have specific gene associations in a proportion of patients that increases with ever-advancing genetic analytical progress.

SADS/MNH was first mentioned in the UK maternal confidential enquiries in the triennial report for deaths in 2003-5, and has increased in number and proportion of total deaths since (Table 5.5). This is due to increasing recognition of the condition by pathologists. No other country acknowledges SADS/MNH deaths to this extent, presumably most are listed as 'unascertained cause of death'.

Table 5.5: Maternal deaths from SADS/MNH, UK and Ireland 2003-2020

	Number of women who died during or up to 6 weeks after pregnancy	MMR per 100,000 maternities	Number of women who died more than 6 weeks up to a year after pregnancy	Late MMR per 100,000 maternities
2003-5*	3	0.1	n/a	n/a
2006-8*	10	0.4	n/a	n/a
2009-14	36	0.8	17	0.4
2015-17	10	0.41	5	0.21
2018-20 (current report)	5	0.22	6	0.26

*UK only

All the 11 mothers who died between 2018-20 died suddenly and unexpectedly in the community; their median age was 33 years (range 20-42). Around half died more than six weeks after pregnancy; those dying before or shortly after giving birth had reached 28 weeks to term; all but one were White women; none were morbidly obese. One had a suggestive family history of premature cardiac death, and another had reported palpitations during pregnancy.

At autopsy, all their heart/body weight ratios were within the normal range; all had toxicology screens which were negative for cardio-stimulatory drugs, but only one had formal exclusion of acute anaphylaxis through mast cell tryptase blood analysis. Four of the 11 autopsies had the heart reviewed by a cardiac pathology specialist.

Regarding cardiac disease genetic association, four of the 11 mothers had DNA analysis performed on tissue; none are known to have resulted in a positive link, although one mother had an abnormal gene associated with seizures.

The critical question is whether pregnancy, delivery and post-delivery care of the baby are risk factors for death from SADS/MNH. As yet, it is unclear epidemiologically whether the maternal mortality rate of SADS/MNH is any different from the expected death rate from SADS/MNH among non-pregnant women in the same age range, who have not had a pregnancy within the previous year. A higher rate would indicate that these deaths represent a syndrome that demands closer attention within maternal services.

Pathologists need to maintain vigilance in the assessment of deaths where there is no obvious macroscopic causation, and follow the recommended UK protocols for the optimal examination of the heart at autopsy (Royal College of Pathologists 2022). Only then will we be able to assess the true contribution of inherited cardiac disorders such as SADS/MNH to maternal mortality.

5.6 Conclusions

Assessors considered that in almost one third of instances, different care may have prevented women's deaths (Table 5.6). As has been a repeated focus of these reports, raising awareness of the importance of 'red flag' cardiac symptoms, and considering cardiac causes as part of the differential diagnosis for women presenting with pain, wheeze and breathlessness remain the most important actions. Only one in ten women were known to have cardiac disease prior to pregnancy. While the decreased mortality rate from cardiac causes noted in this report gives cautious reasons for optimism, women continue to enter pregnancy with a greater range and number of risk factors for cardiac disease. This emphasises not only the importance of recognition of cardiac disease when it occurs for the first time during and immediately after pregnancy, but also of actions pre-pregnancy to identify and address risk factors.

Table 5.6: Classification of care received by women who died from cardiovascular causes, UK and Ireland, 2018-20

Classification of care received	Women who died (N=61) Number of women (%)
Good care	16 (26)
Improvements to care which would have made no difference to outcome	25 (41)
Improvements to care which may have made a difference to outcome	19 (31)
Records unavailable	1 (2)

6. Lessons on prevention and treatment of hypertensive disorders

Marian Knight, Kate Harding, Louise Page, Nicki Pusey and Samantha Holden on behalf of the MBRRACE-UK hypertensive disorders chapter-writing group

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6.1 Key messages

New recommendations

Ensure that the national Patient Group Direction allowing prescription of aspirin for pregnant women at risk of pre-eclampsia by midwives and pharmacists is widely implemented **[ACTION: Service Planners/Commissioners, Hospitals/Trusts/Health Boards]**.

Ensure that women's electronic records can be easily accessed and shared when they receive care in different settings **[ACTION: National Digital Policy Teams, Service Planners/Commissioners, Hospitals/Trusts/Health Boards]**.

Be aware of how to contact the regional maternal medicine lead for urgent advice to ensure multidisciplinary senior review of women who are unwell. **[ACTION: Service Planners/Commissioners, Hospitals/Trusts/Health Boards, All Health Professionals]**.

Be aware of the added risk of fetal compromise when a woman's pregnancy is complicated by both hypertension and diabetes. It is not only babies predicted to be small for gestational age who may be at risk **[ACTION: All health professionals, Professional education programmes]**.

Existing guidance requiring improved implementation

At the first antenatal (booking) appointment (and later if appropriate), discuss and give information on what antenatal care involves and why it is important (NICE Guideline NG201 Antenatal care)

When giving women (and their partners) information about antenatal care, use clear language, and tailor the timing, content and delivery of information to the needs and preferences of the woman and her stage of pregnancy. Information should support shared decision making between the woman and her healthcare team, and be:

- offered on a one-to-one or couple basis
- supplemented by group discussions (women only or women and partners)
- supplemented by written information in a suitable format, for example, digital, printed, braille or Easy Read
- offered throughout the woman's care
- individualised and sensitive
- supportive and respectful
- evidence-based and consistent
- translated into other languages if needed (NICE Guideline NG201 Antenatal care)

Explore the knowledge and understanding that the woman (and her partner) has about each topic to individualise the discussion (NICE Guideline NG201 Antenatal care)

During labour measure blood pressure hourly in women with hypertension (NICE Guideline NG133 Hypertension in pregnancy)

Transfer the woman to obstetric-led care if any of the following are observed at any point, unless the risks of transfer outweigh the benefits:

- a single reading of either raised diastolic blood pressure of 110 mmHg or more or raised systolic blood pressure of 160 mmHg or more
- either raised diastolic blood pressure of 90 mmHg or more or raised systolic blood pressure of 140 mmHg or more on 2 consecutive readings taken 30 minutes apart (NICE Intrapartum care guideline CG190)

If induction is unsuccessful, discuss this with the woman and provide support. Fully reassess the woman's condition and the pregnancy in general, and assess fetal wellbeing using antenatal cardiotocography interpretation (NICE Guideline NG207 Inducing labour)

If induction is unsuccessful, discuss and agree a plan for further management with the woman, including whether she would like further attempts at induction, taking into account the clinical circumstances and her preferences (NICE Guideline NG207 Inducing labour)

In women with severe pre-eclampsia, limit maintenance fluids to 80 ml/hour unless there are other ongoing fluid losses (for example, haemorrhage) (NICE Guideline NG133 Hypertension in pregnancy)

For women with gestational hypertension whose blood pressure is lower than 160/110 mmHg after 37 weeks, timing of birth, and maternal and fetal indications for birth should be agreed between the woman and the senior obstetrician (NICE Guideline NG133 Hypertension in pregnancy)

For women with pre-eclampsia who are 37 weeks onwards initiate birth within 24-48 hours (NICE Guideline NG133 Hypertension in pregnancy)

6.2 Background

The number of women who die from hypertensive disorders of pregnancy has been in single figures in the UK and Ireland for the last three triennia. Nevertheless, it is of concern that the mortality rate in this triennium in the UK is now more than four times higher than it was in 2012-14, when only two women died. Hypertensive disorders of pregnancy remain one of the leading causes of maternal death worldwide, and the UK will only maintain its low maternal death rate with continued emphasis on prevention, early detection and optimal management of hypertensive disorders. This will become even more important with increasing numbers of women entering pregnancy with risk factors for hypertensive pregnancy disorders, and multiple morbidities which add complexity to the treatment of co-existing pre-eclampsia, as highlighted in chapter 4. To enhance the messages for improving care of women with hypertensive disorders, for the purposes of this chapter, MBRRACE-UK assessors worked together with members of the HSIB maternity team and considered messages for care arising from HSIB reviews of babies who died or had severe brain injury in association with a maternal hypertensive disorder of pregnancy.

6.3 The women who died

In 2018-2020 eight women died from hypertensive disorders of pregnancy, all either during pregnancy or up to six weeks after the end of pregnancy. The mortality rate in the UK remains low (0.38/100,000, 95% CI 0.16-0.75) but is four times higher than in the 2012-14 triennium when the rate was at its lowest (0.09/100,000 maternities, 95% CI 0.01-0.31) (RR 4.46, 95% CI 0.89-43.1).

Two women died following intracranial haemorrhage in association with HELLP syndrome, two women died from Acute Fatty Liver of Pregnancy (AFLP), and two died following eclamptic seizures (Table 6.1). Two women died from pulmonary oedema; both died at home and neither woman's death was associated with intravenous fluid administra-

tion. However, issues around fluid management in the context of women with pre-eclampsia and pre-existing diabetes are described in chapter 4. The care of three women who died was potentially impacted by pandemic-related factors, including remote consultation and concern around hospital attendance.

Table 6.1: Causes of death among women who died from hypertensive disorders of pregnancy (1997-2020)

	1997-2002§	2003-8§	2009-14¶	2015-17¶	2018-20¶
Intracranial Haemorrhage	16	18	7*	3*	2**
Eclampsia/ cerebral oedema	0	6	3	1	2
Pulmonary oedema	3	0	0	0	2
Hepatic rupture	2	1	0	0	0
Hepatic Necrosis/HELLP	9	5	4*	2*	2**
AFLP	7	7	1	1	2
Total	37	37	14	6	8

*One woman died due to both intracranial bleed and HELLP syndrome.

**Two women died due to both intracranial bleed and HELLP syndrome.

§ Figures for UK only

¶ Figures for UK and Ireland but note no deaths occurred in Ireland in 2018-20

Five of the women who died were aged 30 or over and two women were obese (Table 6.2). Half of women who died were Black or Asian. One woman died from a hypertensive disorder of pregnancy following IVF. The majority of women died in the immediate postnatal period (Table 6.3).

Table 6.2: The socio-demographic characteristics of women who died from hypertensive disorders of pregnancy, UK and Ireland, 2018-20

Characteristics	Number of women (%) N=8
Socio-demographic	
Age (years)	Median=31, range 23 to 47
<30	3 (38)
≥ 30	5 (63)
BMI at booking (kg/m ²)	
18-24	4 (50)
25-29	2 (25)
≥30	2 (25)
Parity	
Nulliparous	5 (63)
Multiparous	3 (38)
Multiple pregnancy	
Singleton	8 (100)
Twin	0 (0)
Ethnicity	
White	4 (50)
Asian	2 (25)
Black	2 (25)
Woman's region of birth	
United Kingdom/ Ireland	5 (63)
Outside UK/Ireland	3 (38)
Socioeconomic status (Index of Multiple Deprivation)	

Characteristics	Number of women (%) N=8
First - third quintile (Least deprived)	4 (50)
Fourth/ fifth quintile	4 (50)

Table 6.3: Timing of maternal deaths from hypertensive disorders of pregnancy, UK and Ireland, 2018-20

Time period of deaths in the pregnancy care pathway	Number (%) N=8
Antenatal period or on day of childbirth	2 (25)
Postnatal 1 to 42 days after childbirth	6 (75)

HSIB reviews where maternal hypertensive pregnancy disorders were considered an associated cause were examined. All available reviews of the care of babies who died were assessed (4 babies who were stillborn and 8 who died in the neonatal period), together with all reviews of the care of babies with severe brain injury from Black, Asian, Mixed and other ethnic minority groups (13 babies), and a sample, stratified by English region, of reviews of the care of babies with severe brain injury from White ethnic groups (15 babies). The reviews of the care of 40 babies were assessed in total.

6.4 Overview of care and new lessons to be learned

Messages for care of women with hypertensive disorders identified from reviews of maternal deaths

Pre-pregnancy care

A young woman with a BMI over 50kg/m², previous pregnancy loss, asthma, sleep apnoea and hypertension conceived with no evidence of pre-pregnancy planning, contraceptive advice or health optimisation. She had poorly controlled hypertension throughout her pregnancy. She collapsed at home at term and could not be resuscitated.

As in previous years obesity was a factor among some of the women who died. Two women had a BMI over 40kg/m². Interventions to modify obesity risk in pregnancy are best addressed pre-conception as significant weight reduction in pregnancy is not recommended. One woman with significant risk factors for hypertensive disorders of pregnancy underwent IVF treatment without any evidence of a discussion of the potential risks of pregnancy. For women who seek IVF treatment abroad outwith the UK or Republic of Ireland regulatory framework, their GP may be best placed to provide counselling of the risks of IVF pregnancy particularly those related to age and comorbidity.

When young women with co-morbidities present to reproductive or maternity health services (such as for contraceptive advice, with a pregnancy loss, postnatally or after termination of pregnancy), the opportunity should be taken to discuss health optimisation, as these women are all at high risk during a future pregnancy. The time for this counselling needs to be made available in the scheduling of appointments.

Aspirin

A woman with a history of pre-eclampsia booked for consultant care and was recommended by her midwife to commence aspirin. She attended a consultant appointment in the second trimester and was given a proforma letter advising that aspirin should be prescribed. Her GP did not receive this for a further three weeks and therefore aspirin prescription was delayed. She developed severe pre-eclampsia in the third trimester with pulmonary oedema from which she died.

Despite the knowledge that low dose aspirin (75-150mg) reduces the risk of pre-eclampsia having been widespread for many years (and included in the NICE 2013 quality standard), a number of women described in this report were not receiving low dose aspirin, or received it later in pregnancy than advised. This may be due to a lack of knowledge amongst those health professionals who see these women in early pregnancy (Midwife, GPs, obstetricians and non-maternity clinicians), or a difficulty in accessing aspirin or a reluctance among women to take medication. It is noted that although aspirin can be purchased as an over the counter medication it is not "licensed" in pregnancy,

thus pharmacists in the UK are unable to dispense it for pre-eclampsia prophylaxis. As a result the only options for at risk women are to buy it on the pretence it is for someone else, or to have it prescribed by their GP. This causes delay in starting this medication or raises concerns among women that there may be risk from taking aspirin. This problem was also noted in HSIB reports into babies who died or had severe brain injury.

The 2019 MBRRACE-UK report recommended that a national Patient Group Direction, including advice relating to safe, timely and cost-effective local implementation, should be developed to ensure consistent high quality care by allowing midwives to supply aspirin to eligible women in line with NICE Guidance (Knight, Bunch et al. 2019). A national Patient Group Direction was released in February 2022 (NHS Specialist Pharmacy Service 2022) and it is now essential that this is widely implemented. This will enable both midwives and pharmacists to prescribe aspirin for pregnant women with recognised risk factors and hence ensure all women can access aspirin as early as possible to benefit from its preventive effect.

Ensure that the national Patient Group Direction allowing prescription of aspirin for pregnant women at risk of pre-eclampsia by midwives and pharmacists is widely implemented. N

Continuity of records

The woman described in the previous vignette had separate admissions to different hospitals in different parts of the country in the third trimester before she died. In these instances she was admitted with a severe headache and raised blood pressure which settled, and on one occasion she was treated with labetalol. Assessors felt that the fact that she was unable to share her medical records from the first admission at a unit remote from her home, meant that the severity of her pre-eclampsia was not recognised in subsequent admissions. This is likely to become an increasing problem as electronic records replace hand held paper records unless it can be ensured that electronic records can be shared and are accessible when required. Sharing of records with her GP may also have ensured she received an earlier aspirin prescription.

Ensure that women's electronic records can be easily accessed and shared when they receive care in different settings. N

Access to antenatal care

A Black African woman had much of her antenatal care overseas. On return to the UK in the third trimester she was seen by her GP who recommended immediate review in the hospital because of her raised blood pressure. She declined an ambulance and said she would make her own way to the hospital. She was found later that day, unresponsive. She died from an intracranial haemorrhage.

Whilst as health professionals we may understand the benefits of good (appropriate, compassionate and supportive) antenatal care, some women may not be aware of its value, or may have anxieties about attending antenatal clinic appointments (e.g. risk of Covid-19 infection or being brought to the attention of the "authorities"). This could lead to some women, particularly vulnerable and migrant women, either not accessing the care to which they are entitled (and need) or not following medical advice. In this triennium four out of eight women who died were from Black and Asian backgrounds, two of whom were born abroad.

At the first antenatal (booking) appointment (and later if appropriate), discuss and give information on what antenatal care involves and why it is important

When giving women (and their partners) information about antenatal care, use clear language, and tailor the timing, content and delivery of information to the needs and preferences of the woman and her stage of pregnancy. Information should support shared decision making between the woman and her healthcare team, and be:

- offered on a one-to-one or couple basis
- supplemented by group discussions (women only or women and partners)
- supplemented by written information in a suitable format, for example, digital, printed, braille or Easy Read

- offered throughout the woman's care
- individualised and sensitive
- supportive and respectful
- evidence-based and consistent
- translated into other languages if needed.

Explore the knowledge and understanding that the woman (and her partner) has about each topic to individualise the discussion.

NICE Guideline NG201 Antenatal care (National Institute for Health and Care Excellence 2021a)

Vulnerability

A woman had multiple problems including mental health problems, ADHD and autism, previous domestic violence and additional financial and housing stressors during pregnancy. She had multiple and overlapping appointments during pregnancy; she was unable to attend a mental health appointment because she had a social services visit at the same time. She could not afford the bus fare to hospital and missed several appointments. In the third trimester her blood pressure was noted to be significantly elevated with proteinuria and she was admitted to labour ward. Her blood pressure was controlled initially with one off doses of labetalol and nifedipine. Steroids for lung maturation were commenced but she discharged herself against medical advice later that same day, with plans to see her GP for a blood pressure check the next day (Saturday). She was found dead a week later.

While this woman had excellent social support put in place in pregnancy, it was clear there were no robust plans for her follow-up when she discharged herself against medical advice. As noted in the 2019 report, it is important, particularly in high risk or vulnerable women, to ensure that there are robust care pathways in place to ensure appropriate follow up, which may require additional home visits.

Communication and location of care

A woman presented in spontaneous labour following an uneventful pregnancy. As she was in labour staff considered her raised blood pressure on admission was caused by pain. She was admitted to the low risk birth unit for labour care; no further observations were performed before the baby was born. The woman was transferred to the labour ward due to delay in second stage and had an assisted vaginal birth. Syntometrine was given for the third stage of labour. Around an hour after giving birth she complained of a headache and was found to have a markedly elevated blood pressure. Shortly afterwards she became unresponsive and began having seizures. A CT scan confirmed an intracranial haemorrhage. She died the day after giving birth.

This woman's care highlights the difference in low and high risk care pathways. Her admission blood pressure was not repeated and she was admitted to a low risk birth unit. Here, the assumption was that everything was normal and her raised blood pressure was due to pain; guidelines for low risk care, requiring blood pressure observations every four hours in the first stage of labour, meant that a routine check did not happen before the woman was transferred to the labour ward. A repeat blood pressure following her admission to the low risk birth unit is likely to have altered her care pathway with transfer directly to the labour ward for closer monitoring, including blood tests and urinalysis. This would have supported an earlier diagnosis of hypertension (and possibly pre-eclampsia) with earlier treatment and a different care plan for the third stage of labour.

The woman's raised blood pressure was not plotted on the electronic MEWS chart which would have automatically flagged her as high risk, and mandated communication between the birth centre and labour ward to escalate her care. Review and completion of contemporaneous electronic documentation is often more challenging for staff looking after women in labour, and this may contribute to key information being missed.

During labour measure blood pressure hourly in women with hypertension

NICE Guideline NG133 Hypertension in pregnancy (National Institute for Health and Care Excellence 2019c)

Transfer the woman to obstetric-led care if any of the following are observed at any point, unless the risks of transfer outweigh the benefits:

- a single reading of either raised diastolic blood pressure of 110 mmHg or more or raised systolic blood pressure of 160 mmHg or more
- either raised diastolic blood pressure of 90 mmHg or more or raised systolic blood pressure of 140 mmHg or more on 2 consecutive readings taken 30 minutes apart

NICE Intrapartum care guideline CG190 (National Institute for Health and Care Excellence 2017)

Senior Support and a holistic review

A woman gave birth preterm. In the subsequent 24 hours she was severely oliguric despite 6 litres of intravenous fluid. She became extremely oedematous and developed mild hypertension, with abnormal liver and renal function. She was referred to critical care three days later. She died from AFLP before the regional liver team were able to advise on suitability for transfer and specialist hepatic care.

While an acute deterioration (such as massive postpartum haemorrhage or an eclamptic seizure) may be more obvious to recognise and respond to, a slow deterioration, especially postnatally in a mother who may appear initially reasonably well, is more difficult to recognise and diagnose. In women who are not responding to standard care it is vital that the multidisciplinary team (obstetric, anaesthetic and where relevant obstetric medicine consultants) review the patient together and take a holistic view, taking into account the whole history, the clinical findings and the results of investigations. It is important not to be misled by incidental findings (such as a Covid positive swab). Early referral to the critical care team and escalation for regional expert advice and management may increase the chance of considering more unusual diagnoses that require specialist management.

Be aware of how to contact the regional maternal medicine lead for urgent advice to ensure multidisciplinary senior review of women who are unwell. **N**

Pre-eclampsia and pathology

Pathological diagnosis of pre-eclampsia relies on histological examination, predominantly of the kidney and placental decidua. In a proportion of deaths with a clinical history of pre-eclampsia, histological sampling of the kidney was not performed or significant negative comments were not included in the report (whether the death was directly related to pre-eclampsia or not). This is a standard investigation recommended by Royal College of Pathologists guidelines (Royal College of Pathologists 2010); without this examination it is impossible to fully confirm the presence of pre-eclampsia. The RCPPath guidelines also state electron microscopy should be taken in cases where pre-eclampsia is known or suspected; this did not appear to have been undertaken.

Additional messages for care of women with hypertensive disorders identified from HSIB reviews of the care of babies who died or had severe brain injury

Prolonged induction processes

A woman having her second baby experienced an uneventful pregnancy until 38 weeks when she was noted to have raised blood pressure and proteinuria. An induction of labour was commenced with a prostaglandin pessary, and this was followed by multiple cycles of prostaglandin gel. Four days after IOL was started the woman's membranes ruptured and her labour was augmented with oxytocin. After several hours a caesarean section was performed in the first stage of labour for a pathological CTG. Her baby was born requiring resuscitation, experienced seizures and underwent 72 hours of therapeutic cooling. An MRI was performed which showed the baby had hypoxic encephalopathy and subdural bleeding. M

An older woman had a second pregnancy complicated by both insulin dependent gestational diabetes and pre-eclampsia. She was offered induction of labour at 37 weeks. Following four cycles of prostaglandin an artificial rupture of membranes was performed. The woman progressed rapidly to a vaginal birth complicated by shoulder dystocia. Her baby was born with no discernible heart beat and required extensive resuscitation and therapeutic cooling. M

Both of these babies were born after prolonged induction of labour, and this was a theme identified in the care of several babies. Staff did not recognise the prolonged induction of labour as a change in either mother's risk status; bedside reviews by the obstetric teams did not occur until multiple cycles of prostaglandin had been given over several days. Both women expressed a preference for caesarean birth at various points in the induction process. NICE guidance is clear that women's preferences should be taken into account if, as in these women, induction is unsuccessful (National Institute for Health and Care Excellence 2021). Earlier input from the multidisciplinary team to facilitate communication with the mothers about their preferences with broader insight into their cumulative risk factors may have led to different care pathways.

If induction is unsuccessful, discuss this with the woman and provide support. Fully reassess the woman's condition and the pregnancy in general, and assess fetal wellbeing using antenatal cardiotocography interpretation.

If induction is unsuccessful, discuss and agree a plan for further management with the woman, including whether she would like further attempts at induction, taking into account the clinical circumstances and her preferences.

NICE Guideline NG207 Inducing labour (National Institute for Health and Care Excellence 2021b)

In both instances, the prolonged induction of labour added further stress to an already compromised baby; the subsequent NICU admissions led to families being exposed to additional stresses and separation from their babies in the immediate days after birth. There is extensive evidence that such interventions can be detrimental to families, with depression and anxiety more common in both parents and the developing children (Lean, Rogers et al. 2018).

Pre-eclampsia and gestational diabetes

A multiparous woman met the criteria for testing for gestational diabetes in pregnancy. This was not completed. During the pregnancy a rise in the symphysis-fundal height (SFH) trajectory was noted, to above the 90th centile. The estimated fetal weight on ultrasound was around the 80th centile. The SFH trajectory continued over the 90th centile.

The woman was admitted to a midwifery led unit in labour at term. Her blood pressure on admission was 150/110mmHg but she did not have proteinuria. An assessment was made that she was in the latent phase of labour and monitoring of the fetal heart rate was commenced using intermittent auscultation every 30 minutes. Her blood pressure remained high and was attributed to her being in pain.

When her waters broke meconium was seen. Shortly afterwards there was a fetal bradycardia and she had an emergency caesarean birth after transfer to the obstetric unit. The baby's birthweight was on the 20th centile. The baby required resuscitation following birth and was transferred to the neonatal unit. Cerebral function monitoring was abnormal and therapeutic cooling commenced. A neonatal MRI showed changes consistent with hypoxic ischaemic encephalopathy. M

Hypertensive disorders of pregnancy and diabetes share links to the metabolic syndrome. Women with risk factors for the metabolic syndrome have an increased chance of developing pre-eclampsia or pregnancy induced hypertension and gestational diabetes during pregnancy. As highlighted in chapter 4, co-existence of diabetes and pre-eclampsia adds complexity to women's management as requirements for management of the two conditions may be conflicting. The placental dysfunction of pre-eclampsia leads to compromised oxygen delivery at a time when the accelerated metabolism of the fetus of a woman with diabetes means oxygen demands are greater. Similarly, the tendency of diabetes to lead to larger babies and that of hypertensive disorders of pregnancy to lead to smaller babies, in combination, may lead to a baby being born on a birth centile within the expected range who has unrecognised fetal growth restriction. This may impact on the baby's ability to cope with the demands of labour, as in this instance, and on the accuracy of the clinical team's intrapartum risk assessment.

Recognition that it is not only babies predicted to be small for gestational age (below the 10th centile) who may be a risk of compromise during labour is important to be aware of when a woman's pregnancy is complicated by both hypertension and diabetes.

Be aware of the added risk of fetal compromise when a woman's pregnancy is complicated by both hypertension and diabetes. It is not only babies predicted to be small for gestational age who may be at risk of compromise during labour.

Normalisation of blood pressure

Normalisation bias is a way of thinking that leads people to believe that the information they are receiving is incorrect or unimportant. Expectation bias is a way of decision making based on multiple experiences. When combined these biases can lead to poor recognition and inconsistent management of risk. In many of the reviews, including those described above, women were found to have a first episode of raised blood pressure when they were admitted in labour. Staff displayed a tendency to normalise this increase as being related to the pain of the mother's contractions. This would sometimes lead to repeated attempts to measure the woman's blood pressure in order to obtain a value in the expected range; in some instances, this led to delays in obtaining obstetric advice. In others, no advice was sought, as once a 'normal' blood pressure value was obtained the normalisation bias became superimposed on the expectation that all would be well.

Similarly, on several occasions the cuff size used to measure a woman's blood pressure was factored into a clinician's decision-making processes. Where a high blood pressure measurement was lower when repeated using a larger cuff size, the lower value was used as a baseline upon which to base care pathway decisions.

For many of the babies whose care was reviewed for this chapter, there were multiple cumulative risk factors. When taken alone, each of these risk factors may have been considered minor and not related to the baby's wellbeing; when considered together, cumulative risk factors become more likely to affect the baby. The process of normalising a mother's raised blood pressure, by changing the cuff size, or relating it to a mother's pain, meant an additional risk factor was often not recognised.

Hyponatraemia

A woman in her first pregnancy laboured spontaneously post-term. During the pregnancy she had experienced intermittent hypertension. No treatment had been needed and no diagnosis of pre-eclampsia had been made. During labour her blood pressure was elevated, and she had proteinuria. Her labour was augmented with an oxytocin

infusion, and she received intravenous fluids and an epidural. The baby was born by forceps birth and required resuscitation. Following therapeutic cooling an MRI of the baby's brain showed appearances suggestive of hypoxic ischaemic encephalopathy. M

During the labour the woman had a positive fluid balance of almost 3L. Her urine output during labour was less than 250ml over 11 hours. The confidential enquiry into maternal deaths has previously identified the importance of accurate fluid balance during labour for women with hypertensive disorders of pregnancy, and, as previously noted, careful attention to fluid balance in women with pre-eclampsia had previously eliminated pulmonary oedema as a cause of maternal death in women with hypertensive disorders in the UK and Ireland (Knight, Bunch et al. 2018).

Fluid overload in pre-eclampsia can lead to pulmonary oedema, which can have a direct impact on both the woman's and her baby's wellbeing. Excessive fluid intake, both oral and intravenous, is also associated with hyponatraemia which is associated with both maternal and neonatal seizures. Neonatal seizure secondary to hyponatraemia is an important differential diagnosis for the neonatal team to consider.

Hyponatraemia is not uncommon following labour; approximately 1 in 4 women who take in more than 2.5L of fluid in labour will become hyponatraemic (Moen, Brudin et al. 2009). NHS Resolution has also identified risks associated with maternal and neonatal hyponatraemia during their review of cases referred to their Early Notification scheme (NHS Resolution 2019). Fluid overload was noted in some of the women with diabetes and pre-eclampsia whose care was examined in chapter 4 and emphasises that fluid management in pre-eclampsia must be a continued focus.

In women with severe pre-eclampsia, limit maintenance fluids to 80 ml/hour unless there are other ongoing fluid losses (for example, haemorrhage).

NICE Guideline NG133 Hypertension in pregnancy (National Institute for Health and Care Excellence 2019c)

Pre-eclampsia at term

A woman in her second pregnancy had a history of pre-existing hypertension. Her blood pressure was measured weekly and at 20 weeks she was prescribed labetalol. This was stopped three weeks later when her blood pressure returned to normal range. Her blood pressure became raised again at 40 weeks; no obstetric review was arranged and an induction of labour was booked for a week later. During the induction process the baby became bradycardic and a category 1 caesarean section was undertaken. The baby required extensive resuscitation and went on to receive 72 hours of cooling. An MRI showed changes suggestive of hypoxic ischaemic encephalopathy. M

This vignette highlights a downgrading of a woman's risk status leading to a missed opportunity for an obstetric review. The woman was discharged from obstetric care at 37 weeks when her blood pressure had stabilised, and her risk-assessment was downgraded to a low-risk pathway. This downgrading of her risk status influenced future decisions regarding her care and normalised her subsequent hypertension. NICE guidance suggests that where a mother has an increased risk factor, in this case raised blood pressure, after 37 weeks, an induction of labour should be discussed and offered (National Institute for Health and Care Excellence 2019). An earlier induction of labour may have changed the outcome for the baby.

For women with gestational hypertension whose blood pressure is lower than 160/110 mmHg after 37 weeks, timing of birth, and maternal and fetal indications for birth should be agreed between the woman and the senior obstetrician.

For women with pre-eclampsia who are 37 weeks onwards initiate birth within 24-48 hours.

NICE Guideline NG133 Hypertension in pregnancy (National Institute for Health and Care Excellence 2019c)

Aspirin

Missed opportunities to prescribe aspirin in a timely fashion were also identified from the HSIB reviews of babies' care.

A woman was identified as having two moderate risk factors for pre-eclampsia at her first trimester booking visit. She was primiparous and had a family history of pre-eclampsia. Although the antenatal risk factors were correctly identified aspirin was not prescribed. She developed pre-eclampsia at 35 weeks. Her baby underwent therapeutic cooling after an emergency birth.

M

Placental pathology

In several of the investigations included in this review there are examples of, when requested, how useful placental pathology can be in understanding the contributory factors to the clinical outcome for babies (Box 5.1). The Royal College of Pathologists (Royal College of Pathologists 2019) recommend that ‘as a minimum, all placentas from stillbirths, fetal growth restriction (FGR – below 10th centile with abnormal fetal growth curve during pregnancy), immaturity (less than 32+0 completed weeks gestation), and cases of severe fetal distress requiring admission to a neonatal intensive care unit (NICU), maternal pyrexia (>38°C) and late miscarriages (20+0 to 23+6 39 completed weeks gestation) should be referred’ for full pathological examination including histology. It is important to ensure that processes exist to ensure that this takes place.

Box 6.1: HSIB reviews showing the added value of placental pathology

“The placental histology (an examination with a microscope) showed two features. Firstly, there was evidence of maternal arterial malperfusion in the placenta. This means there were changes to the blood vessels in the placenta that might affect oxygen getting to the baby. Maternal arterial malperfusion is associated with pre-eclampsia. The Mother had two moderate risk factors for pre-eclampsia at booking for which aspirin was indicated. She did not receive any aspirin during her pregnancy. The administration of aspirin may have reduced the chance of the maternal arterial malperfusion.”

“The placenta was sent for histopathology. The report concluded that there was ‘maternal vascular malperfusion, consistent with pre-eclampsia’.”

“A post-mortem (PM) examination was carried out and showed no external or internal abnormalities. It showed ‘early hypoxic-ischaemic damage in the brain and the placental histology showed features consistent with maternal vascular malperfusion’.”

“The placenta histopathology showed delayed villous maturation’ and stated that ‘delayed villous maturation for gestation causes impairment of gas exchange in the terminal villi and puts a baby at risk for sudden hypoxia/asphyxia’.”

6.5 Conclusions

For three quarters of the women whose care was reviewed for the purposes of this chapter (6/8), different care might have made a difference to their outcome. It is clear that continued attention to enabling women with risk factors to receive aspirin is needed, and to ensure that abnormal blood pressure measurements are not normalised. The reviews of the care of babies who died or had severe brain injury in association with maternal hypertensive pregnancy disorders has emphasised the need to avoid prolonged induction processes. The reviews of morbidity, both in this and previous chapters, have identified the need for renewed focus on fluid management; fluid overload was seen in both women who died reviewed here, amongst the mothers of babies reviewed by HSIB, and amongst the mothers reviewed in chapter 4 who had co-existing diabetes and pre-eclampsia. Details of these areas of guidance requiring improved implementation are available in the online supplementary material. There will be significant numbers of women affected by pre-eclampsia and other hypertensive disorders of pregnancy for the foreseeable future, and we cannot afford to become complacent about their care.

Table 6.4: Classification of care received by women who died from hypertensive disorders, UK and Ireland, 2018-20

Classification of care received	Women who died (N=8) Number of women (%)
Good care	0
Improvements to care which would have made no difference to outcome	2 (25)
Improvements to care which may have made a difference to outcome	6 (75)

7. Lessons on caring for women with early pregnancy disorders

Roshni Patel and Marian Knight on behalf of the MBRRACE-UK early pregnancy chapter-writing group

Chapter writing group members: Jim Bamber, Anita Banerjee, Margarita Bariou, Kathryn Bunch, David Churchill, Bernard Clarke, Hilde Engjom, Nicky Gammie, Kate Harding, Samantha Holden, Sara Kenyon, Alison Kirkpatrick, Marian Knight, Upma Misra, Roshni Patel, Beccy Percival, Robin Russell

7.1 Key messages

New recommendations for care

Vulnerable and young women remain disproportionately represented amongst those who have died from ectopic pregnancy. Ensure care is personalised to provide appropriate additional safety measures [**ACTION: Service Planners/Commissioners, Hospitals/Trusts/Health Boards**].

Existing guidance and recommendations requiring improved implementation

When diagnosing complete miscarriage on an ultrasound scan, in the absence of a previous scan confirming an intrauterine pregnancy, always be aware of the possibility of a pregnancy of unknown location. Advise these women to return for follow-up (for example, hCG levels, ultrasound scans) until a definitive diagnosis is obtained [NICE NG126].

Throughout a woman's care, provide the woman and (with her consent) her partner specific evidence-based information in a variety of formats. This should include (as appropriate):

- when and how to seek help if existing symptoms worsen or new symptoms develop, including a 24-hour contact telephone number
- what to expect during the time she is waiting for an ultrasound scan
- what to expect during the course of her care (including expectant management), such as the potential length and extent of pain and/or bleeding, and possible side effects; this information should be tailored to the care she receives

Ensure that sufficient time is available to discuss these issues with women during the course of her care and arrange an additional appointment if more time is needed [NICE NG126].

Women of reproductive age who present with shock or collapse of unknown cause should have a Focussed Assessment with Sonography in Trauma (FAST) scan before they receive thrombolysis. Only surgical care can save these women [Saving Lives, Improving Mothers' Care 2016].

7.2 Background

Women are still dying from early pregnancy problems. In this report almost all women died from ectopic pregnancy, which remains as frequent a cause of maternal death as other pregnancy problems such as hypertensive disorders. Maternal deaths from early pregnancy-related causes may also be secondary to complications of termination of pregnancy, trophoblastic disease and miscarriage.

7.3 The women who died

In 2018-2020, 109 women died whilst less than 24 weeks gestation or after a pregnancy that ended at less than 24 weeks in the United Kingdom and Ireland. Their causes of death are shown in Table 7.1, and reviews of the care of the majority are considered in different chapters of this and other reports. Nine of these women died from early

pregnancy problems and their care is considered here. No women died from trophoblastic disease. One woman died from complications of an incomplete miscarriage. The remaining eight women who died had ectopic pregnancies. All women who were diagnosed before death died within 48 hours of presentation. (Table 7.2).

Table 7.1: Causes of death amongst women who died at less than 24 weeks' gestation whilst still pregnant or after their pregnancy ended at less than 24 weeks (2018-20), UK and Ireland

Cause of Death	Number of women	Percentage
Sepsis	6	6
Thrombosis and thromboembolism	11	10
Cardiac disease	6	6
Mental Health problems	31	28
Early pregnancy-related causes	9	8
Haemorrhage	1	1
Neurology	16	15
Other indirect causes	12	11
Unascertained	2	2
Coincidental deaths	15	14
Total	109	100

Table 7.2: The socio-demographic characteristics of women who died from early pregnancy complications, UK and Ireland, 2018-20

Characteristics	Number of women (%) N=9
Age (years)	Median=31, Range 17 to 39
<30	4 (44)
≥ 30	5 (56)
Parity	
Nulliparous	5 (56)
Multiparous	4 (44)
UK/Irish citizen	
Yes	4 (44)
No	1 (11)
Missing	4 (44)
Ethnicity	
White European	6 (67)
Other ethnic group	3 (33)
Woman's region of birth	
United Kingdom/ Ireland	4 (44)
Outside UK/Ireland	3 (33)
Missing	2 (22)

7.4 Overview of care and new lessons to be learned

Managing pregnancy of unknown location

A vulnerable woman presented to the emergency department with a suspected miscarriage. She had taken photographs of the expelled products. She had an ultrasound scan, which showed an empty uterus, and no adnexal masses. Speculum examination confirmed a closed cervical os. Based on these findings and the photographs she was told she had a complete miscarriage and discharged home with the advice to repeat a pregnancy test in two weeks. She was not given any written information and did not have a current GP. She was found dead three weeks later. Post-mortem confirmed intra-abdominal haemorrhage secondary to ruptured ectopic pregnancy.

Women with pregnancy of unknown location warrant particularly close attention and it is essential to adhere to national guidance (National Institute for Health and Care Excellence 2019). Products of conception cannot be diagnosed from photographs. Women should be managed as a pregnancy of unknown location if a pregnancy has not been previously identified on ultrasound scan. Vulnerable women need additional safety netting in place. Where a follow up pregnancy test is required, systems need to be in place to ensure this occurs. If a woman cannot afford a pregnancy test, she should be given a follow-up appointment in the early pregnancy service or provided with a pregnancy test at the time of discharge.

When diagnosing complete miscarriage on an ultrasound scan, in the absence of a previous scan confirming an intrauterine pregnancy, always be aware of the possibility of a pregnancy of unknown location. Advise these women to return for follow-up (for example, hCG levels, ultrasound scans) until a definitive diagnosis is obtained.

Throughout a woman's care, provide the woman and (with her consent) her partner specific evidence-based information in a variety of formats. This should include (as appropriate):

- **when and how to seek help if existing symptoms worsen or new symptoms develop, including a 24-hour contact telephone number**
- **what to expect during the time she is waiting for an ultrasound scan**
- **what to expect during the course of her care (including expectant management), such as the potential length and extent of pain and/or bleeding, and possible side effects; this information should be tailored to the care she receives**

Ensure that sufficient time is available to discuss these issues with women during the course of her care and arrange an additional appointment if more time is needed.

NG126 Ectopic pregnancy and miscarriage: diagnosis and initial management (National Institute for Health and Care Excellence 2019b)

Vulnerable and young women remain disproportionately represented amongst those who have died from ectopic pregnancy. They need additional safety measures incorporated into their care, for example, enhanced follow-up pathways. Each contact with girls or women of childbearing age following miscarriage, prescribing contraception, at sexually-transmitted infection screening and at smear tests is an opportunity to educate regarding red flag symptoms associated with ectopic pregnancy. The awareness of symptoms may reduce deaths amongst vulnerable women and teenage girls.

Vulnerable and young women remain disproportionately represented amongst those who have died from ectopic pregnancy. Ensure care is personalised to provide appropriate additional safety measures. N

FAST scanning

An ethnic minority woman who was known to be pregnant collapsed in the community with abdominal pain. She was brought to the emergency department where she had a cardiac arrest. She was noted to have a very low haemoglobin but was thrombolysed for presumed pulmonary embolism. A FAST scan was not carried out. Her ectopic pregnancy was diagnosed at a subsequent laparotomy undertaken when signs of bleeding became more evident, but she continued to deteriorate and died.

Three women died from ruptured ectopic pregnancies after receiving thrombolysis. A Focused Assessment with Sonography in Trauma (FAST scan) was not performed prior to thrombolysis in any of these women, despite symptoms indicative of ectopic pregnancy as in this woman, who had abdominal pain and was severely anaemic on admission. As previously recommended a pregnancy test and a FAST scan should be undertaken before thrombolysis in all women of reproductive age. All collapsed or shocked pregnant women do not have a pulmonary embolism. The diagnosis of pulmonary embolism has improved significantly in recent years but treatment should not be given until a FAST scan has excluded intra-abdominal pathology or bleeding.

Women of reproductive age presenting to the Emergency Department collapsed, in whom a pulmonary embolism is suspected, should have a Focused Assessment with Sonography in Trauma (FAST) scan to exclude intra-abdominal bleeding from a ruptured ectopic pregnancy especially in the presence of anaemia.

Saving Lives, Improving Mothers' Care 2016 (Knight, Nair et al. 2016)

Good care

A young woman collapsed in the community and received bystander cardiopulmonary resuscitation. She was attended by paramedics who performed further advanced cardiac life support and transferred her rapidly to hospital with ongoing resuscitation. Vascular access was difficult and intra-osseous access was used. Advanced resuscitation resulted in a spontaneous cardiac output. She had a positive pregnancy test and a FAST scan showed fluid in the abdomen. She was transferred to theatre for a laparotomy at which two litres of blood was found in her abdomen and a salpingectomy was performed. She was transferred to intensive care but became progressively unstable and died.

This woman received appropriate care but died in spite of this. Cardiopulmonary resuscitation was carried out in the community, paramedics arrived swiftly and she was immediately transferred to hospital. A pregnancy test and FAST scan were undertaken on admission enabling rapid diagnosis and treatment of her ectopic pregnancy. She received maximal supportive treatment on the intensive care unit but sadly continued to deteriorate and died. This emphasises the importance of public and health professional awareness of the presenting symptoms and signs of an ectopic pregnancy as a rupture may put a woman into extremis which may not be survivable despite good care.

7.5 Conclusions

Assessors concluded that almost all the women who died from an ectopic pregnancy could have had better care, which might have altered the outcome for a third (3/9). Whilst the numbers in this report are small, ectopic pregnancy remains common with a prevalence of approximately 1%. With improved patient and clinician awareness regarding the symptoms of ectopic pregnancy more extra uterine pregnancies could be identified earlier and before collapse occurs. Where women of reproductive age, who may or may not be known to be pregnant, present with collapse, an ectopic pregnancy must be excluded as venous thromboembolism and cardiac disease must not be considered as the only causes. Every opportunity should be taken to ensure women of reproductive age who seek gynaecological or early pregnancy care are aware of the symptoms associated with ectopic pregnancy. It is important that all women know where to seek advice if they are concerned, that early pregnancy services are visible and accessible and welcoming to young and vulnerable women.

Table 7.3: Classification of care received by women who died from early pregnancy disorders, UK and Ireland, 2018-20

Classification of care received	Women who died (N=9) Number of women (%)
Good care	1 (11)
Improvements to care which would have made no difference to outcome	5 (56)
Improvements to care which may have made a difference to outcome	3 (33)

8. Lessons for critical care

Katie Cranfield, Nuala Lucas, Marian Knight and Frank Schroeder on behalf of the MBRRACE-UK critical care chapter-writing group

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8.1 Key messages

New recommendations for care

Ensure the appropriate national Maternity Early Warning Score is used to monitor a pregnant woman wherever in the hospital she receives care **[ACTION: Service Planners/Commissioners, Hospitals/Trusts/Health Boards, All Health Professionals]**.

Involve the critical care team in antenatal multidisciplinary team planning for women with serious morbidity who may require admission to intensive care after giving birth **[ACTION: All Health Professionals]**

Existing guidance and recommendations requiring improved implementation

The recognition and management of severe acute illness requires good multidisciplinary teamwork. An anaesthetist or critical care specialist should be involved early (CMACE 2006-8)

The route of escalation to critical care services should be clearly defined and include multidisciplinary discussion. Critical care outreach or an equivalent service should be available to ill women and provide support and education to healthcare professionals delivering enhanced maternal care (EMC guidelines 2018)

Women with pre-existing medical conditions should have pre-pregnancy counselling by doctors with experience of managing their disorder in pregnancy (Saving Lives, Improving Mothers' Care 2014)

A general clinical assessment should be performed to assess malnutrition in the ITU, until a specific tool has been validated. The general clinical assessment should include a nutritional [history], such as unintentional weight loss or a decrease in physical performance before ICU admission. It should also include a physical examination, general assessment of body composition, and muscle mass and strength, if possible. Every critically ill patient staying for more than 48 h in the ICU should be considered at risk for malnutrition (ESPEN guideline-on-clinical-nutrition-in-the-intensive-care-unit)

Referral to the NHS ECMO service should be made for pregnant women or women post-pregnancy using the same criteria as for other adult patients. Where doubt exists about a woman's suitability for ECMO, clinicians should seek advice from their regional ECMO centre early (Saving Lives, Improving Mothers' Care Rapid Report 2021)

8.2 Background

The first chapter dedicated to intensive care issues in maternal deaths appeared in the 1991–93 triennial report. Since then, there has been an evolution in the understanding and delivery of care to critically ill obstetric patients. Looking after critically ill pregnant and postpartum women requires a multidisciplinary team of experts in critical care, obstetrics, midwifery and other medical and surgical disciplines as well as allied hospital services. Women admitted to ICU are often young and previously well, and the deterioration leading to ICU admission is often unexpected. Despite the demographic changes in the obstetric population, admission to the intensive care unit (ICU) during and after pregnancy is uncommon. The National Maternity and Perinatal Audit (NMPA) analysis of maternity admissions to intensive care in England, Wales and Scotland identified a rate of 2.75 admissions per 1000 women who were pregnant or recently pregnant (Jardine and NMPA Project Team 2019). Admission to ICU was more likely among women of advanced maternal age, Black ethnicity, BMI over 35kg/m² and parity of 3 or more. Outcomes for obstet-

ric patients admitted to ICU are generally good, with relatively short length of stay, and only a very small proportion requiring an admission lasting longer than seven days. However, the care of women who were reviewed in this chapter nevertheless identified some important messages for learning.

8.3 The women who died

For the purposes of this chapter, the care of 35 women was reviewed. Cardiac disease was the most frequent cause of women’s death (Table 8.1), reflecting the fact that it remains the leading cause of maternal death alongside psychiatric disorders. Women who die from mental health-related causes are under-represented amongst those cared for in ICU due to the high proportion who die by violent suicide. Note that this does not represent all women cared for in ITU who died between 2018-20, solely those whose care was reviewed for the purposes of the chapters in this report.

Table 8.1: Causes of death of women whose critical care was assessed, UK and Ireland, 2018-20

Cause of Death	Total (n=35) Frequency (%)
Early pregnancy death	1 (3)
Pre-eclampsia and eclampsia	4 (11)
Neurological	1 (3)
Thrombosis and thromboembolism	2 (6)
Sepsis	5 (14)
Deaths from psychiatric cause	4 (11)
Cardiac disease	11 (31)
Malignancy	3 (9)
Other indirect deaths	1 (3)
Accidental	1 (3)
Unascertained	2 (6)

8.4 Overview of care and new lessons to be learned

Identification of critical illness and the role of critical care outreach

As with previous MBRRACE-UK reports, for most women whose care was reviewed in this chapter, death was not an abrupt event but occurred in the context of critical illness. The role of early identification and the response to serious maternal morbidity highlighted in other chapters is also a recurring theme in this chapter.

Early warning systems (EWS) are now embedded in the routine care of most hospitalised patients in the NHS. Surveys have shown that while they are now almost universally used in maternity units, there is widespread inter-hospital variation in the type of EWS and thresholds for escalating care vary significantly (Isaacs, Wee et al. 2014). Several factors have contributed to this variation, including a lack of evidence and validation of EWS in the obstetric population. Poor correlation with obstetric physiology can be seen when there is an ‘overlap’ of early clinical features typical for critical illness and normal physiology in the peri-partum period (e.g. tachycardia). The 4P observational study tracked physiological measurements (blood pressure, heart rate, oxygen saturation, temperature, and respiratory rate) of pregnant women from the first trimester to term (Green, Mackillop et al. 2020). Data from more than 1000 women were used to produce evidence-based, gestation-specific centiles and normal ranges for vital signs during pregnancy. This work has led to the development of an English national obstetric EWS that will support the standardisation of practice (NHS England 2022). Other MEWS have been developed in the devolved nations and Ireland (Healthcare Improvement Scotland 2018, Department of Health 2019).

A woman presented to primary and secondary care several times in the third trimester with tiredness and respiratory symptoms. She was eventually diagnosed with metastatic cancer during an emergency department attendance. She deteriorated rapidly, and a decision was made to expedite birth. Despite being short of breath, she did not have a chest X-ray or blood gas analysis before her caesarean section. Postoperatively she received routine postoperative care in the labour ward. Her continued deterioration was not detected until several hours after she gave birth, when investigations confirmed she had developed an acute kidney injury and liver failure. She was transferred to ITU but died three days later.

A maternity early warning score chart which may have expedited the recognition of this woman's deterioration was not in use. A critical care outreach team could have provided valuable and earlier input into the care of this woman, if her deterioration had been identified. The role of critical care outreach teams is now well established within general hospital care, but their contribution to the care of obstetric patients is less clear. The model for providing critical care outreach services within individual hospitals may vary, but such outreach teams should provide these four elements: a reliable method of alerting the team when early signs of deterioration are recorded; a team with the appropriate skill mix and that is familiar with obstetric patients (or can involve clinicians who are); an administrative structure to provide the required resources; and a process of audit and education to help prevent future events.

A woman was admitted to hospital with decompensated liver failure and pneumonia a few months after giving birth. She had good clinical care, including daily reviews by the critical care outreach team. When she developed respiratory failure, she was promptly admitted to ITU. Despite advanced intensive care support, she continued to deteriorate and died.

This woman's care illustrates good multidisciplinary involvement and early critical care outreach. As previous MBRRACE-UK reports and national enquiries have highlighted, all members of teams involved in caring for unwell obstetric patients should attend regular multidisciplinary joint training including simulation. This should include emergency drills, use of handover tools such as SBAR and human factors training (Ockenden 2022). It is vital that other relevant teams who may be involved in caring for obstetric patients are included in this training, to not only improve knowledge, but teamworking and EWS response. Depending on different local services this is likely to include critical care, critical care outreach teams, emergency departments, acute medicine/medical emergency teams and obstetric anaesthesia teams.

Ensure the appropriate national Maternity Early Warning Score is used to monitor a pregnant woman wherever in the hospital she receives care. **N**

The recognition and management of severe acute illness requires good multidisciplinary teamwork. An anaesthetist or critical care specialist should be involved early (Lewis, Cantwell et al. 2011)

The route of escalation to critical care services should be clearly defined and include multidisciplinary discussion.

Critical care outreach or an equivalent service should be available to ill women and provide support and education to healthcare professionals delivering enhanced maternal care.

Enhanced Maternal Care guidelines 2018 (Maternal Critical Care/Enhanced Maternity Care Standards Development Working Group 2018)

High risk conditions – planning and peripartum management

Despite improvements in therapeutic strategies and management, pulmonary hypertension remains a condition associated with high maternal mortality (Martin and Edwards 2019, Low, Guron et al. 2021). Patients can experience rapid deterioration during pregnancy and particularly at the time of giving birth. Early multidisciplinary management and planning are essential. This should include identification and referral to a maternal medicine centre at the earliest opportunity where critical care specialists should form part of the multi-disciplinary team planning the woman's maternity care. Caesarean section is the preferred mode of birth with combined spinal-epidural anaesthesia being the preferred anaesthetic technique (Hemnes, Kiely et al. 2015). Delivery and the first postpartum week have been recognised as particularly vulnerable periods for women with pulmonary hypertension due to fluid shifts and the use of oxytocic drugs to manage the third stage. Given the risk of significant decompensation in the period surrounding delivery and the first week postpartum, it is vital that critical care specialists are involved in planning care around this period. Particular thought should be given to the location of birth, taking into account plans for ongoing care and management should the patient decompensate during this period.

A woman developed significant dyspnoea in the third trimester of pregnancy and was diagnosed with pulmonary hypertension. She was immediately transferred to a tertiary centre with experts in the management of pulmonary hypertension. After extensive investigation and multidisciplinary discussion, an elective caesarean section was planned. She was admitted to ITU preoperatively to optimise care. Caesarean section under regional anaesthesia was uneventful until shortly after she gave birth, when she had a cardiac arrest from which she could not be resuscitated.

As in this woman's care, it may be appropriate to consider antenatal admission to a critical care unit to optimise care prior to birth, as well as to extend the period of intensive care postpartum. Making women with pulmonary hypertension and similar high-risk conditions aware of the possible need for ICU care as part of pre-pregnancy discussions may be appropriate.

Women with pre-existing medical conditions should have pre-pregnancy counselling by doctors with experience of managing their disorder in pregnancy (Saving Lives, Improving Mothers' Care 2014) (Knight, Kenyon et al. 2014)

Involve the critical care team in antenatal multidisciplinary team planning for women with serious morbidity who may require admission to intensive care after giving birth. N

General critical care management and specific therapies

The Covid-19 pandemic has highlighted the inequity of medical care experienced by pregnant women compared to the non-pregnant population that was already identified in previous MBRRACE reports (Knight, Morris et al. 2020). When pregnant women are admitted to ICU, they must have the same access to potentially life-saving therapies and medications as non-pregnant patients.

Nutritional state, body composition and metabolism

A woman was admitted to ITU after an emergency caesarean birth because of worsening preeclampsia. She had a prolonged stay in ITU and suffered multiple complications, including severe sepsis, cardiac failure, and pneumonia. She not only had severe hyperemesis in the antenatal period but also significant nutritional problems throughout her ITU stay. At the time of her death, she had lost more than 20% of her booking weight. She had a cardiac arrest attributed to hypokalaemia and poor cardiac function.

It is recognised that many controversies still exist in the subject on the provision of nutritional support in critically ill patients. The optimal approach to nutrition in the population of critically unwell (non-pregnant) adults remains unknown despite numerous RCTs published over the past decade. Controversies remain in the timing of initiation (early versus late) as well as the approach (trophic or full feeding) in the non-pregnant population, and there is limited data or guidance available for the management of nutrition in the critically unwell obstetric population.

Critically unwell obstetric patients are likely to have a significantly higher basal metabolic rate compared to their non-pregnant baseline, due to the effects of both the pregnancy itself and critical illness. Not only can suboptimal nutritional support increase the risk of maternal morbidity and mortality, but it can also negatively impact fetal growth and increase the risk of a poor neonatal outcome. The catabolic effects of critical illness and risks of overfeeding are well recognised. In the very acute phase of critical illness, the main focus of nutritional support is likely to mainly consist of optimisation of fluid balance and electrolytes. Blood volume increases in pregnancy from 65ml/kg pre-pregnancy to approximately 100ml/kg (Vricella 2017). Particular care should be taken when assessing obstetric patients' fluid status. Women with a low weight and/or body mass index may have a circulating blood volume of less than 4 litres even whilst pregnant, meaning that the significance of a post-partum haemorrhage may be underestimated. Similarly, reduced colloid osmotic pressure may make the risk of iatrogenic fluid overload particularly high in this patient group. Care should be given to careful assessment of fluid balance and volume state, with consideration of using dynamic measures such as point of care echocardiography or cardiac output monitoring.

Even in the presence of a potentially normal (or even raised) body mass index at the time of their admission to critical care, assessors felt an unrecognised poor nutritional state contributed to the deaths of a number of women. Many nutritional assessment tools e.g., MUST or NUTRIC have not been validated in either critical care or obstetric populations. In line with UK and European guidelines, all critically unwell pregnant patients should be assessed and managed by a multidisciplinary team including experts in dietetics and nutrition (Singer, Blaser et al. 2019).

A general clinical assessment should be performed to assess malnutrition in the ITU, until a specific tool has been validated. The general clinical assessment should include a nutritional [history], such as unintentional weight loss or a decrease in physical performance before ICU admission. It should also include a physical examination, general assessment of body composition, and muscle mass and strength, if possible.

Every critically ill patient staying for more than 48 h in the ICU should be considered at risk for malnutrition. ESPEN guideline on clinical nutrition in the intensive care unit (Singer, Blaser et al. 2019)

Whilst calorific requirements are unlikely to be substantially increased during the first two trimesters for a woman with a healthy body mass index, an increased intake of approximately 200 Kcal per day is recommended for women in their third trimester. The need for vitamin D, folic acid and iron supplementation should be reviewed for every critically ill pregnant woman and prescribed in line with antenatal guidelines. Women found to have poor nutritional reserves, or a more restrictive diet may require additional vitamin/micronutrient supplementation. It is important to seek early expert support from critical care and dietitians in assessing and managing the nutritional requirements of critically unwell obstetric patients.

Care should be taken to avoid and minimise the risk of refeeding syndrome in at risk patients. Adequate monitoring of the consequence of nutritional support should be undertaken to identify the potential complications associated with both under- and over-feeding including electrolyte monitoring (including phosphate and magnesium) and liver function tests (Berger, Reintam-Blaser et al. 2019).

As in non-pregnant patients, oral diet when safe, or enteral nutrition (via nasogastric (NG) tubes) should remain the route of choice for critically unwell obstetric patients (Singer, Blaser et al. 2019). The physiological changes to the gastrointestinal tract mean pregnant patients are at a greater risk of delayed gastric emptying/aspiration of gastric contents as well as constipation. Risks of adverse complications can be minimised in line with ESPEN guidelines by considering the following:

- early use of anti-aspiration prophylaxis (in the form of proton pump inhibitors or H2 receptor antagonists)
- monitoring of gastric aspirate quantities with early use of prokinetics when required
- positioning in semi-recumbent position
- continuous rather than bolus enteral feed
- post-pyloric feeding in patients with gastric feeding intolerance not solved with prokinetic agents

As already mentioned in chapter 4, obstetric patients are particularly vulnerable to (relatively short) periods of starvation and glucose dysregulation. Short periods of starvation may precipitate significant episodes of ketoacidosis but blood glucose in this setting may be normal or low. There should be a low threshold for assessing for ketoacidosis and managing this appropriately with intravenous glucose, rehydration and insulin as required. Whatever the cause of ketoacidosis in a pregnant patient these women require intensive monitoring and there should be a low threshold for admitting these women to critical care to facilitate their optimal management.

Extracorporeal Membrane Oxygenation (ECMO)

The role of ECMO in treating critically ill obstetric patients has been highlighted by the Covid-19 pandemic. Maternal and fetal survival rates are higher than in other populations with maternal survival rates of up to 80-90% and fetal survival rates 70-80% (Saad, Rahman et al. 2016, Ong, Zhang et al. 2020). However, timely referral to specialist ECMO services is vital. Patients who have undergone a prolonged period (> 7 days) of mechanical (invasive or non-invasive positive pressure) ventilation are likely to have significantly less reversible lung disease (Camporota, Meadows et al. 2021). The MBRRACE-UK 2021 rapid report of SARS-CoV-2-related maternal deaths described widespread variation in whether critically ill pregnant women were referred for ECMO. While standard referral criteria exist, that must apply equitably to pregnant and non-pregnant patients, decision-making around referral in an obstetric patient can be complex and nuanced. Joint discussion and decision making between the referring hospital and ECMO centre can ensure timely and appropriate referral.

Referral to the NHS ECMO service should be made for pregnant women or women post-pregnancy using the same criteria as for other adult patients.

Where doubt exists about a woman's suitability for ECMO, clinicians should seek advice from their regional ECMO centre early.

MBRRACE-UK Rapid Report 2021 (Knight, Bunch et al. 2021a)

Discharge from ITU

Discharge from ICU back to the maternity unit or another ward can be a vulnerable period in the patient's journey through the hospital and can expose women to preventable errors and adverse events. In addition to the change from continuous monitoring and management by a broad multidisciplinary team, there will be a change in health-care providers, from intensive care staff to obstetricians and midwives. Optimal transfers of care require effective communication between discharging and admitting care areas that include direct communication (in person or via telephone); concise, accurate, up-to-date discharge summaries and a clear plan for ongoing care.

Compassionate care

A woman was admitted to ITU with unsurvivable injuries following a road traffic accident. Her family, including her children, were supported to be with her when she died.

There were several examples of compassionate care of women who were admitted to ICUs and their families. Families, and where possible, a woman's involvement is central to improved shared decision-making and improved delivery of end-of-life care. National guidance exists to support practice in this area (Cosgrove, Baruah et al. 2019).




The death of an obstetric patient may be particularly distressing for staff, and support is essential to help them provide compassionate and skilful care. Lack of support for staff at these times can have a physical and psychological impact, and can contribute to burnout, compassion fatigue, moral injury, distress and dissonance with end-of-life care. This in turn may lead to reduced quality of care and an increased risk of adverse safety incidents (van Mol, Kompanje et al. 2015, Rathert, Williams et al. 2018). Strategies that can mitigate these risks include debriefing sessions and initiatives that foster positive team culture and team communication. Organisational, individual, and structural mechanisms are required to ensure that all staff feel supported to deliver end-of-life care.

Optimising care and multi-disciplinary team working

As with previous reports, reviewers were left with the impression that smooth team working had not always been achieved when caring for obstetric patients. The role of 'authentic multidisciplinary team' working has been described as a pre-requisite of high quality maternal critical care. Labour ward teams engage in regular multidisciplinary skills drills, and specialists in obstetrics and gynaecology may be very experienced in multidisciplinary team communication for cancer patients. However, multidisciplinary team communication for clinical decision making in the acute situation is less established and not well studied. In addition, women present with such a range of conditions that the particular speciality teams who need to cooperate, may have no previous experience of working together. The Covid-19 pandemic has necessitated and increased our ability to work collaboratively in novel ways. Video-conferencing technology is now routinely used to facilitate case conferences across units, specialties and centres. Such systems could be used in both acute and chronic settings to enable critical care specialist input into the multidisciplinary team. This, along with increased collaborative working through networked maternal medicine, will hopefully improve the quality of care that this group of women receive.

Hospitals differ in their configuration of care for women who are critically ill during pregnancy, birth or the postnatal period. In different hospitals women with the same clinical condition may be cared for in various settings: labour ward, a medical ward or the ICU. It is important to acknowledge that no single specialist or care location has all the skill and knowledge to care for the critically ill obstetric patient. Acknowledgement of the compromises in care that these women face may help clinicians to address and manage some of the associated shortfalls of the individual care locations. For example, admission to critical care may mean being cared for by staff who only infrequently look after pregnant women; they may be less confident prescribing medications in pregnancy and may be less able to facilitate routine care for partners and new babies. An awareness of these potential shortfalls will enable staff to be proactive about seeking support with prescribing and drive units to find innovative ways to facilitate some co-located routine newborn care for families as a whole (Box 8.1).

Box 8.1: Advantages and disadvantages of different locations for providing critical care for pregnant and postpartum woman

 Delivery Suite	 Critical Care	 Medical Ward
<p>Pros</p> <ul style="list-style-type: none"> ▲ Used to pregnant patients ▲ Confident prescribing in pregnancy ▲ Staff nearby if go into labour ▲ Parents + baby co-located ▲ Confident management of pregnancy related-syndromes e.g. PET ▲ High consultant presence <p>Cons</p> <ul style="list-style-type: none"> ▼ May not be confident with unwell patients ▼ Possibly no nursing staff ▼ May not be co-located with ICU ▼ Lack of access to physicians 	<p>Pros</p> <ul style="list-style-type: none"> ▲ Confident management of unwell patients ▲ Invasive monitoring ▲ Additional organ support ▲ 1:1 nursing support ▲ High consultant presence <p>Cons</p> <ul style="list-style-type: none"> ▼ Not all staff comfortable with pregnant patients ▼ Lack confidence prescribing pregnancy ▼ Lack awareness MEOWs parameters ▼ Partner/baby often not co-located ▼ Support if in labour 	<p>Pros</p> <ul style="list-style-type: none"> ▲ Confident management of multiple medical conditions ▲ Partner/baby may be welcome/co-located ▲ Nursing/medical staff familiar with wide range medical conditions <p>Cons</p> <ul style="list-style-type: none"> ▼ Not all staff comfortable with pregnant patients ▼ Lack confidence prescribing pregnancy ▼ Lack awareness MEOWs parameters ▼ Partner/baby often not co-located ▼ Support if in labour

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It is also important to acknowledge the potentially dynamic nature of these factors and that they may influence the ability of the different teams to identify and manage the critically unwell obstetric patient. Different mixes of skill sets within teams at different times, staff fatigue, workload, bed and staffing pressures may all be relevant factors to consider when working as a team and finding the ideal care location for an unwell woman. When working in highly pressured, dynamic environments such as delivery suite and critical care, effective team working requires an ability to take into account these environmental, system, staffing and patient factors. Without considering these factors, women whose experiences of pregnancy and childbirth may have already been incredibly traumatic, could face further risks, including increased mortality, physical and psychological morbidity.

8.5 Conclusions

As these reports have frequently highlighted, critical care is a treatment, not a place. Early involvement of the critical care outreach team when women deteriorate can facilitate earlier escalation of care, and allows for nuanced discussion of the preferred location of care, taking into account each woman’s individual needs. For women with underlying medical co-morbidities who are likely to require critical care, planning ahead and antenatal critical care admission to optimise treatment could be considered. For the women whose care was assessed for the purposes of this chapter, assessors felt that improvements in care might have made a difference to outcome for 49% (17/35). While this assessment relates to improvements across the whole care pathway, it was clear that for some women, better integration of critical care within the multidisciplinary team might have led to the earlier, intensive, care that they needed.

Table 8.2: Classification of care received by women whose care was reviewed for the purposes of this chapter, UK and Ireland, 2018-20

Classification of care received	Women who died (N=35) Number of women (%)
Good care	6 (17)
Improvements to care which would have made no difference to outcome	12 (34)
Improvements to care which may have made a difference to outcome	17 (49)

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ISBN: 978-0-9956854-2-0



Maternity Incentive Scheme – year five

Conditions of the scheme

Ten maternity safety actions with technical guidance

Questions and answers related to the scheme

V1.1 July 2023

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Introduction

NHS Resolution is operating year five of the Clinical Negligence Scheme for Trusts (CNST) Maternity Incentive Scheme (MIS) to continue to support the delivery of safer maternity care.

The MIS applies to all acute Trusts that deliver maternity services and are members of the CNST. As in previous years, members will contribute an additional 10% of the CNST maternity premium to the scheme creating the CNST maternity incentive fund.

The scheme incentivises ten maternity safety actions as referenced in previous years' schemes. Trusts that can demonstrate they have achieved **all** of the **ten** safety actions will recover the element of their contribution relating to the CNST maternity incentive fund and will also receive a share of any unallocated funds.

Trusts that **do not meet** the ten-out-of-ten threshold will **not** recover their contribution to the CNST maternity incentive fund but may be eligible for a small discretionary payment from the scheme to help to make progress against actions they have not achieved. Such a payment would be at a much lower level than the 10% contribution to the incentive fund.

Maternity incentive scheme year five: conditions

In order to be eligible for payment under the scheme, Trusts must submit their completed Board declaration form to NHS Resolution nhsr.mis@nhs.net by **12 noon** on **1 February 2024** and must comply with the following conditions:

- Trusts must achieve **all** ten maternity safety actions.
- The declaration form is submitted to Trust Board with an accompanying joint presentation detailing position and progress with maternity safety actions by the Director of Midwifery/Head of Midwifery and Clinical Director for Maternity Services
- The Trust Board declaration form must be signed and dated by the Trust's **Chief Executive Officer** (CEO) to confirm that:
 - The Trust Board are satisfied that the evidence provided to demonstrate achievement of the ten maternity safety actions meets the required safety actions' sub-requirements as set out in the safety actions and technical guidance document included in this document.
 - There are no reports covering either year 2022/23 or 2023/24 that relate to the provision of maternity services that may subsequently provide conflicting information to your declaration (e.g. Care Quality Commission (CQC) inspection report, Healthcare Safety Investigation Branch (HSIB) investigation reports etc.). All such reports should be brought to the MIS team's attention before **1 February 2024**.
- The Trust Board must give their permission to the CEO to sign the Board declaration form prior to submission to NHS Resolution. Trust Board declaration form must be signed by the Trust's CEO. If the form is signed by another Trust member this will not be considered.
- In addition, the CEO of the Trust will ensure that the Accountable Officer (AO) for their Integrated Care System (ICB) is apprised of the MIS safety actions'

evidence and declaration form. The CEO and AO must both sign the Board declaration form as evidence that they are both fully assured and in agreement with the compliance submission to NHS Resolution

- Trust submissions will be subject to a range of external validation points, these include cross checking with: MBRRACE-UK data (safety action 1 standard a, b and c), NHS England & Improvement regarding submission to the Maternity Services Data Set (safety action 2, criteria 2 to 7 inclusive), and against the National Neonatal Research Database (NNRD) and HSIB for the number of qualifying incidents reportable (safety action 10, standard a)). Trust submissions will also be sense checked with the CQC, and for any CQC visits undertaken within the time period, the CQC will cross-reference to the maternity incentive scheme via the key lines of enquiry.
- The Regional Chief Midwives will provide support and oversight to Trusts when receiving Trusts' updates at Local Maternity and Neonatal System (LMNS) and regional meetings, focusing on themes highlighted when Trusts have incorrectly declared MIS compliance in previous years of MIS.
- NHS Resolution will continue to investigate any concerns raised about a Trust's performance either during or after the confirmation of the maternity incentive scheme results. Trusts will be asked to consider their previous MIS submission and reconfirm if they deem themselves to be compliant. If a Trust re-confirm compliance with all of the ten safety actions, then the evidence submitted to Trust Board will be requested by NHS Resolution for review. If the Trust is found to be non-compliant (self-declared non-compliant or declared non-compliant by NHS Resolution), it will be required to repay any funding received and asked to review previous years' MIS submissions.
- NHS Resolution will publish the outcomes of the maternity incentive scheme verification process, Trust by Trust, for each year of the scheme (updated on the NHS Resolution Website).

Evidence for submission

- The Board declaration form must not include any narrative, commentary, or supporting documents. Evidence should be provided to the Trust Board only, and will not be reviewed by NHS Resolution, unless requested as explained above.
- Trusts must declare YES/NO or N/A (where appropriate) against each of the elements within each safety action sub-requirements.
- The Trust must also declare on the Board declaration form whether there are any external reports which may contradict their maternity incentive scheme submission and that the MIS evidence has been discussed with commissioners.
- Trusts will need to report compliance with MIS by **1 February 2024 at 12 noon** using the Board declaration form, which will be published on the NHS Resolution website in the forthcoming months.
- The Trust declaration form must be signed by the Trust's CEO, on behalf of the Trust Board and by Accountable Officer (AO) of Clinical Commissioning Group/Integrated Care System.

- Only for specific safety action requirements, Trusts will be able to declare N/A (not applicable) against some of the sub requirements.
- The Board declaration form will be available on the MIS webpage at a later date.
- Trusts are reminded to retain all evidence used to support their position. In the event that NHS Resolution are required to review supporting evidence at a later date (as described above) it must be made available as it was presented to support Board assurance at the time of submission.

Timescales and appeals

- Any queries relating to the ten safety actions must be sent in writing by e-mail to NHS Resolution nhsr.mis@nhs.net prior to the submission date.
- The Board declaration form must be sent to NHS Resolution nhsr.mis@nhs.net between **25 January 2024** and **1 February 2024** at 12 noon. An electronic acknowledgement of Trust submissions will be provided within 48 hours from submission date.
- Submissions and any comments/corrections received after **12 noon** on **1 February 2024** will not be considered.
- The Appeals Advisory Committee (AAC) will consider any valid appeal received from participating Trusts within the designated appeals window timeframe.
- There are two possible grounds for appeal:
 - alleged failure by NHS Resolution to comply with the published 'conditions of scheme' and/or guidance documentation
 - technical errors outside the Trusts' control and/or caused by NHS Resolution's systems which a Trust alleges has adversely affected its CNST rebate.
- NHS Resolution clinical advisors will review all appeals to determine if these fall into either of the two specified Grounds for Appeal. If the appeal does not relate to the specified grounds, it will be rejected, and NHS Resolution will correspond with the Trust directly with no recourse to the AAC.
- Any appeals relating to a financial decision made, for example a discretionary payment made against a submitted action plan, will not be considered.
- Further detail on the results publication, appeals window dates and payments process will be communicated at a later date.

For Trusts who have not met all ten safety actions

Trusts that have not achieved all ten safety actions may be eligible for a small amount of funding to support progress. In order to apply for funding, such Trusts must submit an action plan together with the Board declaration form by 12 noon on 1 February 2024 to NHS Resolution nhsr.mis@nhs.net. The action plan must be specific to the action(s) not achieved by the Trust and must take the format of the action plan template which will be provided within the Board declaration form. Action plans should not be submitted for achieved safety actions.

Has your Trust achieved all ten maternity actions and related sub-requirements?

Yes

No

Complete the Board declaration form

Discuss form and contents with the Trust's local commissioner and declaration form signed by the Accountable Officer of Clinical Commissioning Group/Integrated Care System

Request Board approval for the CEO to sign the form, confirming that the Board are satisfied that the evidence provided to demonstrate compliance with/achievement of the ten maternity safety actions meets the required standards as set out in the safety actions and technical guidance document.

CEO signs the form.

Complete the Board declaration form

Discuss form and contents with the Trust's local commissioner and declaration form signed by the Accountable Officer of Clinical Commissioning Group/Integrated Care System

Request Board approval for the CEO to sign the form, confirming that the Board are satisfied that the evidence provided to demonstrate compliance with/achievement of the maternity safety actions meets the required standards as set out in the safety actions and technical guidance document.

Complete action plan for the action(s) not completed in full (action plan contained within excel document).

Return form to nhsr.mis@nhs.net by 12 noon on 1 February 2024

Return form and plan to nhsr.mis@nhs.net by 12 noon on 1 February 2024

Send any queries relating to the ten safety actions to NHS Resolution nhsr.mis@nhs.net prior to the submission date

Safety action 1: Are you using the National Perinatal Mortality Review Tool to review perinatal deaths to the required standard?

<p>Required standard</p>	<p>a) All eligible perinatal deaths should be notified to MBRRACE-UK within seven working days. For deaths from 30 May 2023, MBRRACE-UK surveillance information should be completed within one calendar month of the death.</p> <p>b) For 95% of all the deaths of babies in your Trust eligible for PMRT review, parents should have their perspectives of care and any questions they have sought from 30 May 2023 onwards.</p> <p>c) For deaths of babies who were born and died in your Trust multi-disciplinary reviews using the PMRT should be carried out from 30 May 2023. 95% of reviews should be started within two months of the death, and a minimum of 60% of multi-disciplinary reviews should be completed to the draft report stage within four months of the death and published within six months.</p> <p>d) Quarterly reports should be submitted to the Trust Executive Board from 30 May 2023.</p>
<p>Minimum evidential requirement for Trust Board</p>	<p>Notifications must be made, and surveillance forms completed using the MBRRACE-UK reporting website (see note below about the introduction of the NHS single notification portal).</p> <p>The PMRT must be used to review the care and reports should be generated via the PMRT.</p> <p>A report should be received by the Trust Executive Board each quarter from 30 May 2023 that includes details of the deaths reviewed, any themes identified and the consequent action plans. The report should evidence that the PMRT has been used to review eligible perinatal deaths and that the required standards a), b) and c) have been met. For standard b) for any parents who have not been informed about the review taking place, reasons for this should be documented within the PMRT review.</p>
<p>Verification process</p>	<p>Self-certification by the Trust Board and submitted to NHS Resolution using the Board declaration form.</p> <p>NHS Resolution will use data from MBRRACE-UK/PMRT, to cross-reference against Trust self-certifications.</p>
<p>What is the relevant time period?</p>	<p>From 30 May 2023 until 7 December 2023</p>
<p>What is the deadline for reporting to NHS Resolution?</p>	<p>12 noon on 1 February 2024</p>

Technical guidance for safety action 1

Further guidance and information is available on the PMRT website: Maternity Incentive Scheme FAQs. This includes information about how you can use the MBRRACE-UK/PMRT system to track your notifications and reviews: www.npeu.ox.ac.uk/pmrt/faqs/mis; these FAQs are also available on the MBRRACE-UK/PMRT reporting website www.mbrance.ox.ac.uk.

Technical Guidance Guidance for SA 1(a) – notification and completion of surveillance information	
Which perinatal deaths must be notified to MBRRACE-UK?	Details of which perinatal death must be notified to MBRRACE-UK are available at: https://www.npeu.ox.ac.uk/mbrance-uk/data-collection
Where are perinatal deaths notified?	Notifications of deaths must be made, and surveillance forms completed, using the MBRRACE-UK reporting website. It is planned that a single notification portal (SNP) will be released by NHS England in 2024. Once this is released notifications of deaths must be made through the SNP and this information will be passed to MBRRACE-UK. It will then be necessary for reporters to log into the MBRRACE-UK surveillance system to provide the surveillance information and use the PMRT.
Should we notify babies who die at home?	Notification and surveillance information must be provided for babies who died after a home birth where care was provided by your Trust.
What is the time limit for notifying a perinatal death?	All perinatal deaths eligible to be reported to MBRRACE-UK from 30 May 2023 onwards must be notified to MBRRACE-UK within seven working days.
What are the statutory obligations to notify neonatal deaths?	The Child Death Review Statutory and Operational Guidance (England) sets out the obligations of notification for neonatal deaths. Neonatal deaths must be notified to Child Death Overview Panels (CDOPs) with two working days of the death. This guidance is available at: https://www.gov.uk/government/publications/child-death-review-statutory-and-operational-guidance-england MBRRACE-UK are working with the National Child Mortality Database (NCMD) team to provide a single route of reporting for neonatal deaths that will be via MBRRACE-UK. Once this single route is established, MBRRACE-UK will be the mechanism for directly notifying all neonatal deaths to the local Child Death Overview Panel (CDOP) and the NCMD. At that stage, for any Trust not already doing so, a review completed using the PMRT will be the required mechanism for completing the local review for submission

	to CDOP. This will also be the required route for providing additional information about the death required by both CDOPs and the NCMD. Work is underway to provide this single route of reporting with plans to have this in place in the forthcoming months
Are there any exclusions from completing the surveillance information?	If the surveillance form needs to be assigned to another Trust for additional information, then that death will be excluded from the standard validation of the requirement to complete the surveillance data within one month of the death. Trusts, should however, endeavour to complete the surveillance as soon as possible so that a PMRT review, including the surveillance information can be started.
Guidance for SA1(b) – parent engagement	
We have informed parents that a local review will take place and they have been asked if they have any reflections or questions about their care. However, this information is recorded in another data system and not the clinical records. What should we do?	<p>In order that parents’ perspectives and questions can be considered during the review this information needs to be incorporated as part of the review and entered into the PMRT. So, if this information is held in another data system it needs to be brought to the review meeting, incorporated into the PMRT and considered as part of the review discussion.</p> <p>The importance of parents’ perspectives is highlighted by their inclusion as the first set of questions in the PMRT.</p> <p>Materials to support parent engagement in the local review process are available on the PMRT website at: https://www.npeu.ox.ac.uk/pmrt/parent-engagement-materials</p>
We have contacted the parents of a baby who has died and they don’t wish to have any involvement in the review process. What should we do?	<p>Following the death of their baby, before they leave the hospital, all parents should be informed that a local review of their care and that of their baby will be undertaken by the Trust. In the case of a neonatal death parents should also be told that a review will be undertaken by the local CDOP. Verbal information can be supplemented by written information.</p> <p>The process of parent engagement should be guided by the parents. Not all parents will wish to provide their perspective of the care they received or raise any questions and/or concerns, but all parents should be given the opportunity to do so. Some parents may also change their mind about being involved and, without being intrusive, they should be given more than one opportunity to provide their perspective and raise any questions and/or concerns they may subsequently have about their care.</p> <p>Materials to support parent engagement in the local review process are available on the PMRT website at: https://www.npeu.ox.ac.uk/pmrt/parent-engagement-materials See especially the notes accompanying the flowchart.</p>

<p>Parents have not responded to our messages and therefore we are unable to discuss the review. What should we do?</p>	<p>Following the death of their baby, before they leave the hospital, all parents should be informed that a local review of their care and that of their baby will be undertaken by the Trust. In the case of a neonatal death parents should also be told that a review will also be undertaken by the local CDOP. Verbal information can be supplemented by written information.</p> <p>If, for any reason, this does not happen and parents cannot be reached after three phone/email attempts, send parents a letter informing them of the review process and inviting them to be in touch with a key contact, if they wish. In addition, if a cause for concern for the mother's wellbeing was raised during her pregnancy consider contacting her GP/primary carer to reach her. If parents do not wish to input into the review process, ask how they would like findings of the perinatal mortality review report communicated to them.</p> <p>Materials to support parent engagement in the local review process, including an outline of the role of key contact, are available on the PMRT website at: https://www.npeu.ox.ac.uk/pmrt/parent-engagement-materials See notes accompanying the flowchart as well as template letters and ensure engagement with parents is recorded within the parent engagement section of the PMRT.</p>
<p>Guidance for SA1(c) – conducting reviews</p>	
<p>Which perinatal deaths must be reviewed to meet safety action one standards?</p>	<p>The following deaths should be reviewed to meet safety action one standards:</p> <ul style="list-style-type: none"> • All late miscarriages/ late fetal losses (22+0 to 23+6 weeks' gestation) • All stillbirths (from 24+0 weeks' gestation) • Neonatal death from 22 weeks' gestation (or 500g if gestation unknown) (up to 28 days after birth) <p>While it is possible to use the PMRT to review post neonatal deaths (from 29 days after births) this is NOT a requirement to meet the safety action one standard.</p>
<p>What happens when an HSIB investigation takes place?</p>	<p>It is recognised that for a small number of deaths (term intrapartum stillbirths and early neonatal deaths of babies born at term) investigations will be carried out by HSIB. Your local review using the PMRT should be started but not completed until the HSIB report is complete. You should consider inviting the HSIB reviewers to attend these reviews to act as the external members of the review team, thereby enabling the learning from the HSIB review to be automatically incorporated into the PMRT review.</p> <p>Depending upon the timing of the HSIB report completion achieving the MIS standards for these babies may therefore be impacted by time frames beyond the Trust's control. For an individual death you can indicate in the MBRRACE-UK/PMRT case management screen that an HSIB INVESTIGATION is taking place, and this will be accounted for in the external validation process.</p>

<p>What is meant by “starting” a review using the PMRT?</p>	<p>Starting a review in the PMRT requires the death to be notified to MBRRACE-UK for surveillance purposes, and the PMRT to be used to complete the first review session (which might be the first session of several) for that death. As an absolute minimum all the ‘factual’ questions in the PMRT must be completed for the review to be regarded as started; it is not sufficient to just open and close the PMRT tool, this does not meet the criterion of having started a review. The factual questions are highlighted within the PMRT with the symbol: FQ</p>
<p>What is meant by “reviews should be completed to the draft report stage”?</p>	<p>A multidisciplinary review team should have used the PMRT to review the death, then the review progressed to at least the stage of writing a draft report by pressing ‘Complete review’. See www.npeu.ox.ac.uk/pmrt/faqsmsis for more details of assistance in using the PMRT to complete a review.</p>
<p>What does “multi-disciplinary reviews” mean?</p>	<p>To be multi-disciplinary the team conducting the review should include at least one and preferably two of each of the professionals involved in the care of pregnant women and their babies. Ideally the team should also include a member from a relevant professional group who is external to the unit who can provide ‘a fresh pair of eyes’ as part of the PMRT review team. It may not be possible to include an ‘external’ member for all reviews and you may need to be selective as to which deaths are reviewed by the team including an external member. Bereavement care staff (midwives and nurses) should form part of the review team to provide their expertise in reviewing the bereavement and follow-up care, and advocate for parents. It should not be the responsibility of bereavement care staff to run the reviews, chair the panels nor provide administrative support.</p> <p>See www.npeu.ox.ac.uk/pmrt/faqsmsis for more details about multi-disciplinary review.</p>
<p>What should we do if our post-mortem service has a turn-around time in excess of four months?</p>	<p>For deaths where a post-mortem (PM) has been requested (hospital or coronial) and is likely to take more than four months for the results to be available, the PMRT team at MBRRACE-UK advise that you should start the review of the death and complete it with the information you have available. When the post-mortem results come back you should contact the PMRT team at MBRRACE-UK who will re-open the review so that the information from the PM can be included. Should the PM findings change the original review findings then a further review session should be carried out taking into account this new information. If you wait until the PM is available before starting a review you risk missing earlier learning opportunities, especially if the turn-around time is considerably longer than four months.</p> <p>Where the post-mortem turn-around time is quicker, then the information from the post-mortem can be included in the original review.</p>

<p>What is review assignment?</p>	<p>A feature available in the PMRT is the ability to assign reviews to another Trust for review of elements of the care if some of the care for the women and/or her baby was provided in another Trust. For example, if the baby died in your Trust but antenatal care was provided in another Trust you can assign the review to the other Trust so that they can review the care that they provided. Following their review, the other Trust reassigns the review back to your Trust. You can then review the subsequent care your Trust provided.</p>
<p>How does 'assigning a review' impact on safety action 1, especially on starting a review?</p>	<p>If you need to assign a review to another Trust this may affect the ability to meet some of the deadlines for starting, completing and publishing that review. This will be accounted for in the external validation process.</p>
<p>What should we do if we do not have any eligible perinatal deaths to review within the relevant time period?</p>	<p>If you do not have any babies that have died between 30 May 2023 and 7 December 2023 you should partner up with a Trust with which you have a referral relationship to participate in case reviews. This will ensure that you benefit from the learning that arises from conducting reviews.</p>
<p>What deaths should we review outside the relevant time period for the safety action validation process?</p>	<p>Trusts should review all eligible deaths using the PMRT as a routine process, irrespective of the MIS timeframe and validation process. Notification, provision of surveillance information and reviewing should continue beyond the deadline for completing the year 5 MIS requirements.</p>
<p>Guidance for SA1(d) – Quarterly reports to Trust Boards</p>	
<p>Can the PMRT help by providing a quarterly report that can be presented to the Trust Executive Board?</p>	<p>Authorised PMRT users can generate reports for their Trust, summarising the results from completed reviews over a period, within the PMRT for user-defined time periods. These are available under the 'Your Data' tab in the section entitled 'Perinatal Mortality Reviews Summary Report and Data extracts'.</p> <p>These reports can be used as the basis for quarterly Trust Board reports and should be discussed with Trust maternity safety champions.</p>
<p>Is the quarterly review of the Trust Executive Board report based on a financial or calendar year?</p>	<p>This can be either a financial or calendar year.</p> <p>Reports for the Trust Executive Board summarising the results from reviews over a period time which have been completed can be generated within the PMRT by authorised PMRT users for a user-defined periods of time. These are available under the 'Your Data' tab and the report is entitled 'Perinatal Mortality Reviews Summary Report and Data extracts'.</p>

	Please note that these reports will only show summaries, issues and action plans for reviews that have been published therefore the time period selected may need to relate to an earlier period than the current quarter and may lag behind the current quarter by up to six months.
Guidance – Technical issues and updates	
What should we do if we experience technical issues with using PMRT?	All Trusts are reminded to contact their IT department regarding any technical issue in the first instance. If this cannot be resolved, then the issue should be escalated to MBRRACE-UK. This can be done through the ‘contact us’ facility within the MBRRACE-UK/PMRT system or by emailing us at: mbrrace.support@npeu.ox.ac.uk
If there are any updates on the PMRT for the maternity incentive scheme where will they be published?	Any updates on the PMRT or the MBRRACE-UK notification and surveillance in relation to the maternity incentive scheme safety action 1, will be communicated via NHS Resolution email and will also be included in the PMRT ‘message of the day’.

Safety action 2: Are you submitting data to the Maternity Services Data Set (MSDS) to the required standard?

Required standard	<p>This relates to the quality and completeness of the submission to the Maternity Services Data Set (MSDS) and ongoing plans to make improvements.</p> <ol style="list-style-type: none">1. Trust Boards to assure themselves that at least 10 out of 11 Clinical Quality Improvement Metrics (CQIMs) have passed the associated data quality criteria in the “Clinical Negligence Scheme for Trusts: Scorecard” in the Maternity Services Monthly Statistics publication series for data submissions relating to activity in July 2023. Final data for July 2023 will be published during October 2023.2. July 2023 data contained valid ethnic category (Mother) for at least 90% of women booked in the month. Not stated, missing, and not known are not included as valid records for this assessment as they are only expected to be used in exceptional circumstances. (MSD001)3. Trust Boards to confirm to NHS Resolution that they have passed the associated data quality criteria in the “Clinical Negligence Scheme for Trusts: Scorecard” in the Maternity Services Monthly Statistics publication series for data submissions relating to activity in July 2023 for the following metrics: <p>Midwifery Continuity of carer (MCoC)</p> <p>Note: If maternity services have suspended all MCoC pathways, criteria ii is not applicable.</p> <ol style="list-style-type: none">i. Over 5% of women who have an Antenatal Care Plan recorded by 29 weeks and also have the CoC pathway indicator completed.ii. Over 5% of women recorded as being placed on a CoC pathway where both Care Professional ID and Team ID have also been provided. <p>These criteria are the data quality metrics used to determine whether women have been placed on a midwifery continuity of carer pathway by the 28 weeks antenatal appointment, as measured at 29 weeks gestation. Final data for July 2023 will be published in October 2023.</p>
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	<p>If the data quality for criteria 3 are not met, Trusts can still pass safety action 2 by evidencing sustained engagement with NHS England which at a minimum, includes monthly use of the Data Quality Submission Summary Tool supplied by NHS England (see technical guidance for further information).</p> <ol style="list-style-type: none"> 4. Trusts to make an MSDS submission before the Provisional Processing Deadline for July 2023 data by the end of August 2023. 5. Trusts to have at least two people registered to submit MSDS data to SDCS Cloud who must still be working in the Trust.
Minimum evidential requirement for Trust Board	<p>The “Clinical Negligence Scheme for Trusts: Scorecard” in the Maternity Services Monthly Statistics publication series can be used to evidence meeting all criteria.</p>
Validation process	<p>All criteria to be self-certified by the Trust Board and submitted to NHS Resolution using the Board declaration form.</p> <p>NHS England will cross-reference self-certification of all criteria against data and provide this information to NHS Resolution.</p>
What is the relevant time period?	<p>From 30 May 2023 until 7 December 2023</p>
What is the deadline for reporting to NHS Resolution?	<p>1 February 2024 at 12 noon</p>

Technical guidance for safety action 2

Technical guidance	
<p>The following CQIMs use a rolling count across three separate months in their construction. Will my Trust be assessed on these three months?</p> <ul style="list-style-type: none"> • Proportion of babies born at term with an Apgar score <7 at 5 minutes • Women who had a postpartum haemorrhage of 1,500ml or more • Women who were current smokers at delivery • Women delivering vaginally who had a 3rd or 4th degree tear • Women who gave birth to a single second baby vaginally at or after 37 weeks after a previous caesarean section • Caesarean section delivery rate in Robson group 1 women • Caesarean section delivery rate in Robson group 2 women • Caesarean section delivery rate in Robson group 5 women 	<p>No.</p> <p>For the purposes of the CNST assessment Trusts will only be assessed on July 2023 data for these CQIMs.</p> <p>Due to this, Trusts are now directed to check whether they have passed the requisite data quality required for this safety action within the “Clinical Negligence Scheme for Trusts: Scorecard” in the Maternity Services Monthly Statistics publication series, as the national Maternity Services Dashboard will still display these data using rolling counts.</p>
<p>My maternity service has currently suspended Midwifery Continuity of Carer pathways. How does this affect my data submission for CNST safety action 2?</p>	<p>If maternity services have suspended Midwifery Continuity of Carer (MCoC) pathways, MSDS submissions should explicitly report that women are not being placed on MCoC pathways in MSDS table MSD102. This is a satisfactory response for safety action 2 criteria 3i.</p> <p>If your Trust has suspended all MCoC pathways, criteria 3ii is not applicable and does not need to be completed.</p> <p>If your Trust is continuing with some provision of MCoC pathways, then criteria 3ii does still apply.</p>

<p>Will my Trust fail this action if women choose not to receive continuity of carer?</p>	<p>No. This action is focussed on data quality only and therefore Trusts pass or fail it based upon record completeness for each metric and not on the proportion (%) recorded as the metric output.</p> <p>If women choose not to be placed onto a MCoC pathway, MSDS submissions should explicitly report that women are not being placed on MCoC pathways in MSDS table MSD102.</p>
<p>Where can I find out further technical information on the above metrics?</p>	<p>Technical information, including relevant MSDSv2 fields and data thresholds required to pass CQIMs and other metrics specified above can be accessed on NHS Digital’s website In the “Meta Data” file (see ‘construction’ tabs) available within the Maternity Services Monthly Statistics publication series: https://digital.nhs.uk/data-and-information/publications/statistical/maternity-services-monthly-statistics</p>
<p>What is the Data Quality Submission Summary Tool? How does my Trust access this?</p>	<p>The Data Quality Submission Summary Tool has been developed by NHS England specifically to support this safety action. The tool provides an immediate report on potential gaps in data required for CQIMs and other metrics specified above after data submission, so Trusts can take action to rectify them. It is intended to be used alongside other existing reports and documentation in order for providers to be able to create a full and detailed picture of the quality of their data submissions.</p> <p>Further information on the tool and how to access it is available at: https://digital.nhs.uk/data-and-information/data-collections-and-data-sets/data-sets/maternity-services-data-set/data-quality-submission-summary-tool</p>
<p>For the Data Quality Submission Summary Tool, what does “sustained engagement” mean for the purposes of passing criteria 3?</p>	<p>By “sustained engagement” we mean that Trusts must show evidence of using the tool for at least three consecutive months prior to the submission of evidence to the Trust Board. For example, for a submission made to the Board in November, engagement should be, as a minimum, in August, September and October. This is a minimum requirement, and we advise that engagement should start as soon as possible.</p> <p>To evidence this, Trusts should save the Excel output file after running the report for a given month. Three files representing each of the three consecutive months should be provided to your Trust Board as part of the assurance process for the scheme.</p> <p>Note – this only becomes a requirement in the event your Trust fails the requisite data quality for the continuity of carer metrics in criteria 3.</p>

<p>The monthly publications and Maternity Services DashBoard states that my Trusts' data has failed for a particular metric. Where can I find out further information on why this has happened?</p>	<p>Details of all the data quality criteria can be found in the "Meta Data" file (see 'CQIMDQ/CoCDQ Measures construction' tabs) which accompanies the Maternity Services Monthly Statistics publication series: https://digital.nhs.uk/data-and-information/publications/statistical/maternity-services-monthly-statistics</p> <p>The scores for each data quality criteria can be found in the "Clinical Negligence Scheme for Trusts: Scorecard" in the Maternity Services Monthly Statistics publication series</p>
<p>The monthly publications and national Maternity Services DashBoard states that my Trusts' data is 'suppressed'. What does this mean?</p>	<p>Where data is reported in low values for clinical events, the published data will appear 'suppressed' to ensure the anonymity of individuals. However, for the purposes of data quality within this action, 'suppressed' data will still count as a pass.</p>
<p>Where can I find out more about MSDSv2?</p>	<p>https://digital.nhs.uk/data-and-information/data-collections-and-data-sets/data-sets/maternity-services-data-set</p>
<p>Where should I send any queries?</p>	<p>On MSDS data</p> <p>For queries regarding your MSDS data submission, or on how your data is reported in the monthly publication series or on the Maternity Services DashBoard please contact maternity.dq@nhs.net.</p> <p>For any other queries, please email nhsr.mis@nhs.net</p>

Safety action 3: Can you demonstrate that you have transitional care services in place to minimise separation of mothers and their babies?

<p>Required standard</p>	<p>a) Pathways of care into transitional care (TC) have been jointly approved by maternity and neonatal teams with a focus on minimising separation of mothers and babies. Neonatal teams are involved in decision making and planning care for all babies in transitional care.</p> <p>b) A robust process is in place which demonstrates a joint maternity and neonatal approach to auditing all admissions to the NNU of babies equal to or greater than 37 weeks. The focus of the review is to identify whether separation could have been avoided. An action plan to address findings is shared with the quadrumvirate (clinical directors for neonatology and obstetrics, Director, or Head of Midwifery (DoM/HoM) and operational lead) as well as the Trust Board, LMNS and ICB.</p> <p>c) Drawing on the insights from the data recording undertaken in the Year 4 scheme, which included babies between 34+0 and 36+6, Trusts should have or be working towards implementing a transitional care pathway in alignment with the BAPM Transitional Care Framework for Practice for both late preterm and term babies. There should be a clear, agreed timescale for implementing this pathway.</p>
<p>Minimum evidential requirement for Trust Board</p>	<p>Evidence for standard a) to include: Local policy/pathway available which is based on principles of British Association of Perinatal Medicine (BAPM) transitional care where:</p> <ul style="list-style-type: none"> • There is evidence of neonatal involvement in care planning • Admission criteria meets a minimum of at least one element of HRG XA04 • There is an explicit staffing model • The policy is signed by maternity/neonatal clinical leads and should have auditable standards. • The policy has been fully implemented and quarterly audits of compliance with the policy are conducted. <p>Evidence for standard b) to include:</p> <ul style="list-style-type: none"> • Evidence of joint maternity and neonatal reviews of all admissions to the NNU of babies equal to or greater than 37 weeks. • Evidence of an action plan agreed by both maternity and neonatal leads which addresses the findings of the reviews to minimise separation of mothers and babies born equal to or greater than 37 weeks.

	<ul style="list-style-type: none"> • Evidence that the action plan has been signed off by the DoM/HoM, Clinical Directors for both obstetrics and neonatology and the operational lead and involving oversight of progress with the action plan. • Evidence that the action plan has been signed off by the Trust Board, LMNS and ICB with oversight of progress with the plan.
	<p>Evidence for standard c) to include:</p> <p>Guideline for admission to TC to include babies 34+0 and above and data to evidence this is occurring</p> <p>OR</p> <p>An action plan signed off by the Trust Board for a move towards a transitional care pathway for babies from 34+0 with clear time scales for full implementation.</p>
Validation process	Self-certification by the Trust Board and submitted to NHS Resolution using the Board declaration form
What is the relevant time period?	30 May 2023 to 7 December 2023
What is the deadline for reporting to NHS Resolution?	1 February 2024

Technical guidance for safety action 3

Technical guidance	
<p>Does the data recording process need to be available to the ODN/LMNS/ commissioner?</p>	<p>The requirement for a data recording process from years three and four of the maternity incentive scheme was to inform future capacity planning as part of the family integrated care component of the Neonatal Critical Care Transformation Review. This should be in place and maintained in order to inform ongoing capacity planning of transitional care to minimise separation of mothers and babies. This could be captured through existing systems such as BadgerNet or alternatives such as paper based or electronic systems.</p> <p>These returns do not need to be routinely shared with the Operational Delivery Network (ODN), LMNS and/or commissioner but must be readily available should it be requested.</p>
<p>What members of the MDT should be involved in ATAIN reviews?</p>	<p>The expectation is that this is a multi-professional review, as a minimum the care should be reviewed by representation from both maternity and neonatal staff groups.</p> <p>This should include as a minimum; a member of the maternity team (a midwife and / or obstetrician and /or trainee from maternity services) and a member of the neonatal team (neonatal nurse and / or neonatologist/paediatrician and/or trainee from neonatal services).</p>
<p>We have undertaken some reviews for term admissions to NICU, do we need to undertake more and do all babies admitted to the NNU need to be included?</p>	<p>Maintaining oversight of the number of term babies admitted to a Neonatal Unit (NNU) is an important component of sustaining the Avoiding Term Admissions into Neonatal Units (ATAIN) work to date. The expectation is that reviews have been continued from year 4 of the scheme. If for any reason, reviews have been paused, they should be recommenced using data from quarter 4 of the 2022/23 financial year (beginning January 2023). This may mean that some of the audit is completed retrospectively.</p> <p>We recommend ongoing reviews, at least quarterly of unanticipated admissions of babies equal to or greater than 37 weeks to the NNU to determine whether there were modifiable factors which could be addressed as part of an action plan.</p> <p>A high-level review of the primary reasons for all admissions should be included, with a focus on the main reason(s) for admission through a deep dive to determine relevant themes to be addressed. For example, if 60% of babies are admitted for respiratory problems, then focus on this cohort of babies and complete a deep dive into identified themes or if 40% of babies were admitted with jaundice and 35% of babies were admitted with hypothermia then focus on these two cohorts of babies.</p>

	In addition to this, the number of babies admitted to the NNU that would have met current TC admission criteria but were admitted to the NNU due to capacity or staffing issues and the number of babies that were admitted to or remained on NNU because of their need for nasogastric tube feeding, but could have been cared for on a TC if nasogastric feeding was supported there should be reported on.
What do you mean by quarterly?	Occurring every three months. This would usually mirror the 4 quarters of the financial year and should cover the period of the MIS 30 May 2023 – 7 December 2023 .
What should the Transitional Care audit include and is there a standard audit tool?	An audit tool can be accessed below as a baseline template; however, the audit needs to include aspects of the local pathway. ATAIN-CASE-NOTE-REVIEW-PROFORMA-Revised-2022-converted.pdf We recommend that Trusts refer to the auditable standards included in their local TC pathway guideline/policy.
How long have the neonatal safety champions been in place for?	Trust Board champions were contacted in February 2019 and asked to nominate a neonatal safety champion. The identification of neonatal safety champions is a recommendation of the national neonatal critical care review and have been in place since February/March 2019.
What is the definition of transitional care?	Transitional care is not a place but a service (see BAPM guidance) and can be delivered either in a separate transitional care area, within the neonatal unit and/or in the postnatal ward setting. Principles include the need for a multidisciplinary approach between maternity and neonatal teams; an appropriately skilled and trained workforce, data collection with regards to activity, appropriate admissions as per HRGXA04 criteria and a link to community services.
Where can we find additional guidance regarding this safety action?	https://www.bapm.org/resources/80-perinatal-management-of-extreme-preterm-birth-before-27-weeks-of-gestation-2019 https://www.bapm.org/resources/24-neonatal-transitional-care-a-framework-for-practice-2017 https://improvement.nhs.uk/resources/reducing-admission-full-term-babies-neonatal-units/ https://www.e-lfh.org.uk/programmes/avoiding-term-admissions-into-neonatal-units/

	<p>https://www.england.nhs.uk/coronavirus/wp-content/uploads/sites/52/2020/04/Illness-in-newborn-babies-leaflet-FINAL-070420.pdf</p> <p>Implementing-the-Recommendations-of-the-Neonatal-Critical-Care-Transformation-Review-FINAL.pdf (england.nhs.uk)</p> <p>Framework: Early Postnatal Care of the Moderate-Late Preterm Infant British Association of Perinatal Medicine (bapm.org)</p> <p>B1915-three-year-delivery-plan-for-maternity-and-neonatal-services-march-2023.pdf (england.nhs.uk)</p>
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Safety action 4: Can you demonstrate an effective system of clinical workforce planning to the required standard?

Required standard	<p>a) Obstetric medical workforce</p> <ol style="list-style-type: none">1) NHS Trusts/organisations should ensure that the following criteria are met for employing short-term (2 weeks or less) locum doctors in Obstetrics and Gynaecology on tier 2 or 3 (middle grade) rotas:<ol style="list-style-type: none">a. currently work in their unit on the tier 2 or 3 rota orb. have worked in their unit within the last 5 years on the tier 2 or 3 (middle grade) rota as a postgraduate doctor in training and remain in the training programme with satisfactory Annual Review of Competency Progressions (ARCP) orc. hold a Royal College of Obstetrics and Gynaecology (RCOG) certificate of eligibility to undertake short-term locums.2) Trusts/organisations should implement the RCOG guidance on engagement of long-term locums and provide assurance that they have evidence of compliance, or an action plan to address any shortfalls in compliance, to the Trust Board, Trust Board level safety champions and LMNS meetings. rcog-guidance-on-the-engagement-of-long-term-locums-in-mate.pdf3) Trusts/organisations should implement RCOG guidance on compensatory rest where consultants and senior Speciality and Specialist (SAS) doctors are working as non-resident on-call out of hours and do not have sufficient rest to undertake their normal working duties the following day. Services should provide assurance that they have evidence of compliance, or an action plan to address any shortfalls in compliance, to the Trust Board, Trust Board level safety champions and LMNS meetings. rcog-guidance-on-compensatory-rest.pdf4. Trusts/organisations should monitor their compliance of consultant attendance for the clinical situations listed in the RCOG workforce document:
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'Roles and responsibilities of the consultant providing acute care in obstetrics and gynaecology' into their service

<https://www.rcog.org.uk/en/careers-training/workplace-workforce-issues/roles-responsibilities-consultant-report/> when a consultant is required to attend in person. Episodes where attendance has not been possible should be reviewed at unit level as an opportunity for departmental learning with agreed strategies and action plans implemented to prevent further non-attendance.

b) Anaesthetic medical workforce

A duty anaesthetist is immediately available for the obstetric unit 24 hours a day and should have clear lines of communication to the supervising anaesthetic consultant at all times. Where the duty anaesthetist has other responsibilities, they should be able to delegate care of their non-obstetric patients in order to be able to attend immediately to obstetric patients. (Anaesthesia Clinical Services Accreditation (ACSA) standard 1.7.2.1)

c) Neonatal medical workforce

The neonatal unit meets the relevant British Association of Perinatal Medicine (BAPM) national standards of medical staffing.

If the requirements **have not been met** in year 3 and or 4 or 5 of MIS, Trust Board should evidence progress against the action plan developed previously and include new relevant actions to address deficiencies.

If the requirements **had been met** previously but are not met in year 5, Trust Board should develop an action plan in year 5 of MIS to address deficiencies.

Any action plans should be shared with the LMNS and Neonatal Operational Delivery Network (ODN).

d) Neonatal nursing workforce

The neonatal unit meets the BAPM neonatal nursing standards.

If the requirements **have not been met** in year 3 and or year 4 and 5 of MIS, Trust Board should evidence progress against the action plan previously developed

	<p>and include new relevant actions to address deficiencies.</p> <p>If the requirements had been met previously without the need of developing an action plan to address deficiencies, however they are not met in year 5 Trust Board should develop an action plan in year 5 of MIS to address deficiencies.</p> <p>Any action plans should be shared with the LMNS and Neonatal Operational Delivery Network (ODN).</p>
<p>Minimum evidential requirement for Trust Board</p>	<p>Obstetric medical workforce</p> <p>1) Trusts/organisations should audit their compliance via Medical Human Resources and if there are occasions where these standards have not been met, report to Trust Board Trust Board level safety champions and LMNS meetings that they have put in place processes and actions to address any deviation. Compliance is demonstrated by completion of the audit and action plan to address any lapses.</p> <p>Information on the certificate of eligibility (CEL) for short term locums is available here:</p> <p>www.rcog.org.uk/cel</p> <p>This page contains all the information about the CEL including a link to the guidance document:</p> <p>Guidance on the engagement of short-term locums in maternity care (rcog.org.uk)</p> <p>A publicly available list of those doctors who hold a certificate of eligibility of available at https://cel.rcog.org.uk</p> <p>2) Trusts/organisations should use the monitoring/effectiveness tool contained within the guidance (p8) to audit their compliance and have a plan to address any shortfalls in compliance. Their action plan to address any shortfalls should be signed off by the Trust Board, Trust Board level safety champions and LMNS.</p> <p>3) Trusts/organisations should provide evidence of standard operating procedures and their implementation to assure Boards that consultants/senior SAS doctors working</p>

as non-resident on-call out of hours are not undertaking clinical duties following busy night on-calls disrupting sleep, without adequate rest. This is to ensure patient safety as fatigue and tiredness following a busy night on-call can affect performance and decision-making.

Evidence of compliance could also be demonstrated by obtaining feedback from consultants and SAS doctors about their ability to take appropriate compensatory rest in such situations.

NB. All 3 of the documents referenced are all hosted on the RCOG Safe Staffing Hub

[Safe staffing | RCOG](#)

4) Trusts' positions with the requirement should be shared with the Trust Board, the Board-level safety champions as well as LMNS.

Anaesthetic medical workforce

The rota should be used to evidence compliance with ACSA standard 1.7.2.1.

Neonatal medical workforce

The Trust is required to formally record in Trust Board minutes whether it meets the relevant BAPM recommendations of the neonatal medical workforce. If the requirements are not met, Trust Board should agree an action plan and evidence progress against any action plan developed previously to address deficiencies. A copy of the action plan, outlining progress against each of the actions, should be submitted to the LMNS and Neonatal Operational Delivery Network (ODN).

Neonatal nursing workforce

The Trust is required to formally record to the Trust Board minutes compliance to BAPM Nurse staffing standards annually using the Neonatal Nursing Workforce Calculator (2020). For units that do not meet the standard, the Trust Board should agree an action plan and evidence progress against any action plan previously developed to address deficiencies.

A copy of the action plan, outlining progress against each of the actions, should be submitted to the LMNS and Neonatal Operational Delivery Network (ODN).

Validation process	Self-certification by the Trust Board and submitted to NHS Resolution using the Board declaration form.
What is the relevant time period?	<p>Obstetric medical workforce</p> <ol style="list-style-type: none"> 1. After February 2023 – Audit of 6 months activity 2. After February 2023 – Audit of 6 months activity 3. 30 May 2023 - 7 December 2023 4. 30 May 2023 - 7 December 2023 <p>Anaesthetic medical workforce</p> <p>Trusts to evidence position by 7 December 2023 at 12 noon</p> <p>Neonatal medical workforce</p> <p>A review has been undertaken of any 6 month period between 30 May 2023 – 7 December 2023</p> <p>a) Neonatal nursing workforce</p> <p>Nursing workforce review has been undertaken at least once during year 5 reporting period 30 May 2023 – 7 December 2023</p>
What is the deadline for reporting to NHS Resolution?	1 February 2024

Technical guidance for safety action 4

Technical guidance	
Obstetric workforce standard and action	
How can the Trust monitor adherence with the standard relating to short term locums?	Trusts should establish whether any short term (2 weeks or less) tier 2/3 locums have been undertaken between February and August 2023. Medical Human Resources (HR) or equivalent should confirm that all such locums met the required criteria.
What should a department do if there is non-compliance i.e. locums employed who do not meet the required criteria?	Trusts should review their approval processes and produce an action plan to ensure future compliance.
Can we self-certify compliance with this element of safety action 4 if locums are employed who do not meet the required criteria?	Trusts can self-certify compliance with safety action 4 provided they have agreed strategies and action plans implemented to prevent subsequent non-compliance.
Where can I find the documents relating to short term locums?	Safe staffing RCOG All related documents are available on the RCOG safe staffing page.
How can the Trust monitor adherence with the standard relating to long term locums?	Trusts should use the monitoring/effectiveness tool contained within the guidance (p8) to audit their compliance for 6 months after February 2023 and prior to submission to the Trust Board and have a plan to address any shortfalls in compliance.
What should a department do if there is a lack of compliance demonstrated in the audit tool regarding the support and supervision of long term locums?	Trusts should review their audits and identify where improvements to their process needs to be made. They should produce a plan to address any shortfalls in compliance and assure the Board this is in place and being addressed.
Can we self-certify compliance with this element of safety action 4 if long term locums are employed who are not fully supported/supervised?	Trusts can self-certify compliance with safety action 4 provided they have agreed strategies and action plans implemented to prevent subsequent non-compliance.
Where can I find the documents relating to long term locums?	Safe staffing RCOG

	All related documents are available on the RCOG safe staffing page.
How can the Trust monitor adherence with the standard relating to Standard operating procedures for consultants and SAS doctors acting down?	Trusts should provide documentary evidence of standard operating procedures and their implementation Evidence of implementation/compliance could be demonstrated by obtaining feedback from consultants and SAS doctors about their ability to take appropriate compensatory rest in such situations.
What should a department do if there is a lack of compliance, either no Standard operating procedure or failure to implement such that senior medical staff are unable to access compensatory rest?	Trusts should produce a standard operating procedure document regarding compensatory rest. Trusts should identify any lapses in compliance and where improvements to their process needs to be made. They should produce a plan to address any shortfalls in compliance and assure the Board this is in place and being addressed.
Can we self-certify compliance with this element of safety action 4 if we do not have a standard operating procedure or it is not fully implemented?	Trusts cannot self-certify if they have no evidence of any standard operating procedures by October 2023 . They can self-certify if they have been unable to achieve appropriate compensatory rest in individual circumstances such as excessive staffing pressure have prevented the doctor accessing this. They should, however, demonstrate that they have an action plan to ensure future compliance and provide assurance to the Board that this is place.
Where can I find the documents relating to compensatory rest for consultants and SAS doctors?	Safe staffing RCOG All related documents are available on the RCOG safe staffing page.
How can the Trust monitor adherence with the standard relating to consultant attendance out of hours?	For example, departments can audit consultant attendance for clinical scenarios or situations mandating their presence in the guidance. Departments may also wish to monitor adherence via incident reporting systems. Feedback from departmental or other surveys may also be employed for triangulation of compliance.
What should a department do if there is non-compliance with attending mandatory scenarios/situations?	Episodes where attendance has not been possible should be reviewed at unit level as an opportunity for departmental learning with agreed strategies and action plans implemented to prevent further non-attendance.
Can we self-certify compliance with this element of safety action 4 if	Trusts can self-certify compliance with safety action 4 provided they have agreed strategies and action plans

consultants have not attended clinical situations on the mandated list?	implemented to prevent subsequent non-attendances. These can be signed off by the Trust Board.
Where can I find the roles and responsibilities of the consultant providing acute care in obstetrics and gynaecology RCOG workforce document?	https://www.rcog.org.uk/en/careers-training/workplace-workforce-issues/roles-responsibilities-consultant-report/
For queries regarding this safety action please contact: nhsr.mis@nhs.net and RCOG	

Anaesthetic medical workforce

Technical guidance	
Anaesthesia Clinical Services Accreditation (ACSA) standard and action	
1.7.2.1	A duty anaesthetist is immediately available for the obstetric unit 24 hours a day. Where the duty anaesthetist has other responsibilities, they should be able to delegate care of their non-obstetric patient in order to be able to attend immediately to obstetric patients.

Neonatal medical workforce

Technical guidance	
Neonatal Workforce standards and action	
Do you meet the BAPM national standards of junior medical staffing depending on unit designation?	If not, Trust Board should agree an action plan and outline progress against any previously agreed action plans. There should also be an indication whether the standards not met is due to insufficient funded posts or no trainee or/suitable applicant for the post (rota gap) alongside a record of the rota tier affected by the gaps. This action plan should be submitted to the LMNS and ODN.
BAPM “Optimal Arrangements for Neonatal Intensive Care Units in the UK. A BAPM Framework for Practice” 2021 or “Optimal arrangements for Local Neonatal Units and Special Care Units in the UK including guidance on their staffing: A Framework for Practice” 2018	

NICU

Neonatal Intensive Care Unit

Staff at each level should only have responsibility for the NICU and Trusts with more than one neonatal unit should have completely separate cover at each level of staff during office hours and out of hours.

Tier 1

Resident out of hours care should include a designated tier one clinician - Advanced Neonatal Nurse Practitioner (ANNP) or junior doctor ST1-3.

NICUs co-located with a maternity service delivering more than 7000 deliveries per year should augment their tier 1 cover at night by adding a second junior doctor, an ANNP and/or by extending nurse practice.

Tier 2

A designated experienced junior doctor ST 4-8 or appropriately trained specialty doctor or ANNP.

NICUs with more than 2500 intensive care days should have an additional experienced junior doctor ST4-8 or appropriately trained specialty doctor or ANNP.

(A consultant present and immediately available on NICU in addition to tier 2 staff would be an alternative)

Tier 3

Consultant staff in NICUs should be on the General Medical Council specialist register for neonatal medicine or equivalent and have primary duties on the neonatal unit alone.

NICUs undertaking more than 4000 intensive care days per annum with onerous on call duties should consider having a consultant present in addition to tier 2 staff and immediately available 24 hours per day.

NICUs undertaking more than 2500 intensive care days per annum should consider the presence of at least 2 consultant led teams during normal daytime hours.

NICUs undertaking more than 4000 intensive care days per annum should consider the presence of three consultant led teams during normal daytime hours.

<p>LNU</p> <p>Local Neonatal Unit</p>	<p>Tier 1</p> <p>At least one resident tier 1 practitioner immediately available dedicated to providing emergency care for the neonatal service 24/7.</p> <p>In large LNUs (>7000 births) there should be two dedicated tier 1 practitioners 24/7 to support emergency care, in keeping with the NICU framework.</p> <p>Tier 2</p> <p>An immediately available resident tier 2 practitioner dedicated solely to the neonatal service at least during the periods which are usually the busiest in a co-located Paediatric Unit e.g. between 09.00 - 22.00, seven days a week.</p> <p>LNUs undertaking either >1500 Respiratory Care Days (RCDs) or >600 Intensive Care (IC) days annually should have immediately available a dedicated resident tier 2 practitioner separate from paediatrics 24/7.</p> <p>Tier 3</p> <p>Units designated as LNUs providing either >2000 RCDs or >750 IC days annually should provide a separate Tier 3 Consultant rota for the neonatal unit.</p> <p>LNUs providing >1500 RCDs or >600 IC days annually should strongly consider providing a dedicated Tier 3 rota to the neonatal unit entirely separate from the paediatric department; a risk analysis should be performed to demonstrate the safety & quality of care if the Tier 3 is shared with paediatrics at any point in the 24 hours in these LNUs.</p> <p>All LNUs should ensure that all Consultants on-call for the unit also have regular weekday commitments to the neonatal service. This is best delivered by a 'consultant of the week' system and no consultant should undertake fewer than 4 'consultant of the week' service weeks annually.</p> <p>No on-call rota should be more onerous than one in six and all new appointments to units with separate rotas should either have a SCCT in neonatal medicine or be a general paediatrician with a special interest in neonatology or have equivalent neonatal experience and training.</p>
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<p>SCU Special Care Unit</p>	<p>Tier 1</p> <p>A resident tier 1 practitioner dedicated to the neonatal service in day-time hours on weekdays and a continuously immediately available resident tier 1 practitioner to the unit 24/7. This person could be shared with a co-located Paediatric Unit out of hours.</p> <p>Tier 2</p> <p>A resident tier 2 to support the tier 1 in SCUs admitting babies requiring respiratory support or of very low admission weight <1.5kg. This Tier 2 would be expected to provide cover for co-located paediatric services but be immediately available to the neonatal unit.</p> <p>Tier 3</p> <p>In SCUs there should be a Lead Consultant for the neonatal service and all consultants should undertake a minimum of continuing professional development (equivalent to a minimum of eight hours CPD in neonatology).</p>
<p>Our Trust do not meet the relevant neonatal medical standards and in view of this an action plan, ratified by the Board has been developed. Can we declare compliance with this sub-requirement?</p>	<p>There also needs to be evidence of progress against any previously agreed action plans. This will enable Trusts to declare compliance with this sub-requirement.</p>
<p>When should the review take place?</p>	<p>The review should take place at least once during the MIS year 5 reporting period.</p>
<p>Please access the followings for further information on Standards</p>	<p>BAPM Optimal Arrangements for Neonatal Intensive Care Units in the UK (2021). A BAPM Framework for Practice</p> <p>https://www.bapm.org/resources/296-optimal-arrangements-for-neonatal-intensive-care-units-in-the-uk-2021</p> <p>Optimal arrangements for Local Neonatal Units and Special Care Units in the UK (2018). A BAPM Framework for Practice</p> <p>https://www.bapm.org/resources/2-optimal-arrangements-for-local-neonatal-units-and-special-care-units-in-the-uk-2018</p>

Neonatal nursing workforce

Technical guidance	
Neonatal nursing workforce standards and action	
Where can we find more information about the requirements for neonatal nursing workforce?	<p>Neonatal nurse staffing standards are set out in the BAPM Service and Quality Standards (2022)</p> <p>https://www.bapm.org/resources/service-and-quality-standards-for-provision-of-neonatal-care-in-the-uk</p> <p>The Neonatal Nursing Workforce Calculator (2020) should be used to calculate cot side care and guidance for this tool is available here:</p> <p>https://www.neonatalnetwork.co.uk/nwnodn/wp-content/uploads/2021/08/Guidance-for-Neonatal-Nursing-Workforce-Tool.pdf</p> <p>Access to the tool and more information will be available through your Neonatal ODN Education and Workforce lead nurse.</p>
Our Trust does not meet the relevant nursing standards and in view of this an action plan, ratified by the Board has been developed. Can we declare compliance with this sub-requirement?	<p>There also needs to be evidence of progress against any previously agreed action plans.</p> <p>This will enable Trusts to declare compliance with this sub-requirement.</p>

Safety action 5: Can you demonstrate an effective system of midwifery workforce planning to the required standard?

<p>Required standard</p>	<p>a) A systematic, evidence-based process to calculate midwifery staffing establishment is completed.</p> <p>b) Trust Board to evidence midwifery staffing budget reflects establishment as calculated in a) above.</p> <p>c) The midwifery coordinator in charge of labour ward must have supernumerary status; (defined as having no caseload of their own during their shift) to ensure there is an oversight of all birth activity within the service.</p> <p>d) All women in active labour receive one-to-one midwifery care.</p> <p>e) Submit a midwifery staffing oversight report that covers staffing/safety issues to the Board every 6 months, during the maternity incentive scheme year five reporting period.</p>
<p>Minimum evidential requirement for Trust Board</p>	<p>The report submitted will comprise evidence to support a, b and c progress or achievement.</p> <p>It should include:</p> <ul style="list-style-type: none"> • A clear breakdown of BirthRate+ or equivalent calculations to demonstrate how the required establishment has been calculated. • In line with midwifery staffing recommendations from Ockenden, Trust Boards must provide evidence (documented in Board minutes) of funded establishment being compliant with outcomes of BirthRate+ or equivalent calculations. • Where Trusts are not compliant with a funded establishment based on BirthRate+ or equivalent calculations, Trust Board minutes must show the agreed plan, including timescale for achieving the appropriate uplift in funded establishment. The plan must include mitigation to cover any shortfalls. • The plan to address the findings from the full audit or table-top exercise of BirthRate+ or equivalent undertaken, where deficits in staffing levels have been identified must be shared with the local commissioners.

	<ul style="list-style-type: none"> • Details of planned versus actual midwifery staffing levels to include evidence of mitigation/escalation for managing a shortfall in staffing. <ul style="list-style-type: none"> ○ The midwife to birth ratio ○ The percentage of specialist midwives employed and mitigation to cover any inconsistencies. BirthRate+ accounts for 8-10% of the establishment, which are not included in clinical numbers. This includes those in management positions and specialist midwives. • Evidence from an acuity tool (may be locally developed), local audit, and/or local dashboard figures demonstrating 100% compliance with supernumerary labour ward co-ordinator status and the provision of one-to-one care in active labour. Must include plan for mitigation/escalation to cover any shortfalls.
Validation process	Self-certification to NHS Resolution using the Board declaration form.
What is the relevant time period?	30 May 2023 – 7 December 2023
What is the deadline for reporting to NHS Resolution?	1 February 2023 at 12 noon

Technical guidance for Safety action 5

Technical guidance	
<p>What midwifery red flag events could be included in six monthly staffing report (examples only)?</p> <p>We recommend that Trusts continue to monitor the red flags as per previous year and include those in the six monthly report to the Trust Board, however this is currently not within the minimal evidential requirements but more a recommendation based on good practice.</p>	<ul style="list-style-type: none"> • Redeployment of staff to other services/sites/wards based on acuity. • Delayed or cancelled time critical activity. • Missed or delayed care (for example, delay of 60 minutes or more in washing or suturing). • Missed medication during an admission to hospital or midwifery-led unit (for example, diabetes medication). • Delay of more than 30 minutes in providing pain relief. • Delay of 30 minutes or more between presentation and triage. • Full clinical examination not carried out when presenting in labour. • Delay of two hours or more between admission for induction and beginning of process. • Delayed recognition of and action on abnormal vital signs (for example, sepsis or urine output). • Any occasion when one midwife is not able to provide continuous one-to-one care and support to a woman during established labour. <p>Other midwifery red flags may be agreed locally. Please see the following NICE guidance for details: www.nice.org.uk/guidance/ng4/resources/safe-midwifery-staffing-for-maternity-settings-pdf-51040125637 https://www.nice.org.uk/guidance/ng4/resources/safe-midwifery-staffing-for-maternity-settings-pdf-51040125637</p>
<p>Can the labour ward coordinator be considered to be supernumerary if for example they had to relieve staff for breaks on a shift?</p>	<p>The Trust can report compliance with this standard if this is a one off event and the coordinator is not required to provide 1:1 care or care for a woman in established labour during this time.</p> <p>If this is a recurrent event (i.e. occurs on a regular basis and more than once a week), the Trust should declare non-compliance with the standard and include actions to address this specific requirement going forward in their action plan mentioned in the section above.</p> <p>The role of the co-ordinator includes providing oversight of the labour ward and support and assistance to other midwives. For example: providing CTG 'fresh eyes', giving second opinion and reviews, providing assistance to</p>

	<p>midwives at birth when required, supporting junior midwives undertaking suturing etc. This should not be counted as losing supernumerary status.</p>
<p>What if we do not have 100% supernumerary status for the labour ward coordinator?</p>	<p>An action plan should be produced detailing how the maternity service intends to achieve 100% supernumerary status for the labour ward coordinator which has been signed off by the Trust Board and includes a timeline for when this will be achieved.</p> <p>As stated above, completion of an action plan will not enable the Trust to declare compliance with this sub-requirement in year 5 of MIS.</p>
<p>What if we do not have 100% compliance for 1:1 care in active labour?</p>	<p>An action plan detailing how the maternity service intends to achieve 100% compliance with 1:1 care in active labour has been signed off by the Trust Board and includes a timeline for when this will be achieved.</p> <p>Completion of the action plan will enable the Trust to declare compliance with this sub-requirement.</p>

Safety action 6: Can you demonstrate that you are on track to compliance with all elements of the Saving Babies' Lives Care Bundle Version Three?

<p>Required standard</p>	<ol style="list-style-type: none"> 1) Provide assurance to the Trust Board and ICB that you are on track to fully implement all 6 elements of SBLv3 by March 2024. 2) Hold quarterly quality improvement discussions with the ICB, using the new national implementation tool.
<p>Minimum evidential requirement for Trust Board</p>	<ol style="list-style-type: none"> 1) The Three-Year Delivery Plan for Maternity and Neonatal Services sets out that providers should fully implement Version Three by March 2024. <p>A new implementation tool is now available to help maternity services to track and evidence improvement and compliance with the requirements set out in version three. The tool is based on the interventions, key process and outcome measures identified within each element, and is available at https://future.nhs.uk/SavingBabiesLives</p> <p>Providers should use the new national implementation tool to track compliance with the care bundle and share this with the Trust Board and ICB.</p> <p>To evidence adequate progress against this deliverable by the submission deadline in February, providers are required to demonstrate implementation of 70% of interventions across all 6 elements overall, and implementation of at least 50% of interventions in each individual element. These percentages will be calculated within the national implementation tool.</p> 2) Confirmation from the ICB with dates, that two quarterly quality improvement discussions have been held between the ICB (as commissioner) and the Trust, using the implementation tool and includes the following: <ul style="list-style-type: none"> • Details of element specific improvement work being undertaken including evidence of generating and using the process and outcome metrics for each element.

	<ul style="list-style-type: none">• Progress against locally agreed improvement aims.• Evidence of sustained improvement where high levels of reliability have already been achieved.• Regular review of local themes and trends with regard to potential harms in each of the six elements.• Sharing of examples and evidence of continuous learning by individual Trusts with their local ICB and neighbouring Trusts.
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Technical guidance for Safety action 6

Technical guidance	
Where can we find guidance regarding this safety action?	<p>Saving Babies' Lives Care Bundle v3: https://www.england.nhs.uk/publication/saving-babies-lives-version-three/</p> <p>The implementation tool is available at https://future.nhs.uk/SavingBabiesLives and includes a technical glossary for all data items referred to in MSDS</p> <p>Additional resources are in production and will be advertised on this page. Any further queries regarding the tool, please email england.maternitytransformation@nhs.net</p> <p>Any queries related to the digital aspects of this safety action can be sent to NHS Digital mailbox maternity.dq@nhs.net</p> <p>Some data items are or will become available on the National Maternity Dashboard or from NNAP Online</p> <p>For any other queries, please email nhsr.mis@nhs.net</p>
What is the rationale for the change in evidential requirements to SA6 in Year 5?	<p>The broad principles that will apply to the implementation of the standards detailed in the Saving Babies' Lives Care Bundle (version 3) are:</p> <p>The use of the implementation tool will allow Trusts to track implementation and demonstrate local improvement using the process and outcome indicators within all six elements of the care bundle (for some elements this may only require evidence of a protocol, process, or appointed post).</p> <p>These data will form the basis of compliance with safety action 6 of this version of the maternity incentive scheme.</p> <p>This approach acknowledges the increased number and/or size of elements in this new version of the care bundle.</p> <p>The indicators for each of the six elements are set out below. Data relating to each of these indicators will need to be provided via the national implementation tool.</p> <p>Note: The relevant data items for these process indicators should be recorded on the provider's Maternity Information System (MIS) and/or Neonatal System e.g Badgernet and included in the MSDS submissions to NHS Digital in an MSDSv2 Information Standard Notice compatible format, including SNOMED-CT coding.</p>

<p>What are the indicators for Element 1</p>	<p><i>Process Indicators</i></p> <p>1a. Percentage of women where there is a record of:</p> <ul style="list-style-type: none"> 1.a.i. CO measurement at booking appointment 1.a.ii. CO measurement at 36-week appointment 1.a.iii. Smoking status** at booking appointment 1.a.iv. Smoking status** at 36-week appointment <p>1b. Percentage of smokers* that have an opt-out referral at booking to an in-house/in-reach tobacco dependence treatment service.</p> <p>1c. Percentage of smokers* that are referred for tobacco dependence treatment who set a quit date.</p> <p><i>Outcome Indicators</i></p> <p>1d. Percentage of smokers* at antenatal booking who are identified as CO verified non-smokers at 36 weeks.</p> <p>1e. Percentage of smokers* that set a quit date and are identified as CO verified non-smokers at 4 weeks.</p> <p>*a “smoker” is a pregnant woman with an elevated CO level (4ppm or above) and identifies themselves as a smoker (smoked within the last 14 days) or has a CO level less than 4ppm but identifies as a smoker (smoked within the last 14 days).</p> <p>**Smoking status relates to the outcome of the CO test (>4ppm) and the enquiry about smoking habits.</p>
<p>What are the indicators for Element 2</p>	<p><i>Process Indicators</i></p> <p>2a. Percentage of pregnancies where a risk status for Fetal Growth Restriction (FGR) is identified and recorded at booking. (This should be recorded on the provider’s MIS and included in the MSDS submission to NHS Digital once the primary data standard is in place.)</p> <p>2b. Percentage of pregnancies where a Small for Gestational Age (SGA) fetus (between 3rd to <10th centiles) is antenatally detected, and this is recorded on the provider’s MIS and included in their MSDS submission to NHS Digital.</p> <p>2c. Percentage of perinatal mortality cases annually where the identification and management of FGR was a relevant issue (using the PMRT).</p> <p><i>Outcome Indicators</i></p>

	<p>2d. Percentage of babies <3rd birthweight centile born >37+6 weeks (this is a measure of the effective detection and management of FGR).</p> <p>2e. Percentage of live births and stillbirths >3rd birthweight centile born <39+0 weeks gestation, where growth restriction was suspected.</p>
<p>What are the indicators for Element 3</p>	<p><i>Process Indicators</i></p> <p>3a. Percentage of women who attend with Reduced Fetal Movements (RFM) who have a computerised Cardiotocograph (CTG).</p> <p>3b. Proportion of women who attend with recurrent RFM* who had an ultrasound scan by the next working day to assess fetal growth.</p> <p><i>Outcome Indicators</i></p> <p>3c. Percentage of stillbirths which had issues associated with RFM management identified using PMRT.</p> <p>3d. Rate of induction of labour when RFM is the only indication before 39+0 weeks' gestation.</p> <p>*There is no accepted definition of what recurrent RFM means; one region of the UK has successfully adopted a consensus definition of two or more episodes of RFM occurring within a 21-day period after 26 weeks' gestation.</p>
<p>What are the indicators for Element 4</p>	<p><i>Process Indicators</i></p> <p>4a. Percentage of staff who have received training on CTG interpretation and intermittent auscultation, human factors, and situational awareness.</p> <p>4b. Percentage of staff who have successfully completed mandatory annual competency assessment.</p> <p>4c. Fetal monitoring lead roles appointed.</p> <p><i>Outcome Indicators</i></p> <p>4d. The percentage of intrapartum stillbirths, early neonatal deaths, and cases of severe brain injury* where failures of intrapartum monitoring are identified as a contributory factor.</p> <p>*Using the severe brain injury definition as used in Gale et al. 2018⁴⁸.</p>

What are the indicators for Element 5

Process Indicators

5a. Percentage of singleton infants less than 27 weeks of gestation, multiples less than 28 weeks of gestation, or any gestation with an estimated fetal weight of less than 800g, born in a maternity service on the same site as a neonatal intensive care unit (NICU).

5b. Percentage of **babies born** before 34 weeks of gestation who receive a full course of antenatal corticosteroids within 1 week of birth.

5c. Percentage of **babies born** before 30 weeks of gestation who receive magnesium sulphate within the 24 hours prior to birth.

5d. Percentage of women who give birth following preterm labour below 34 weeks of gestation who receive intravenous (IV) intrapartum antibiotic prophylaxis to prevent early onset neonatal Group B Streptococcal (GBS) infection.

5e. Percentage of babies born below 34 weeks of gestation who have their umbilical cord clamped at or after one minute after birth.

5f. Percentage of babies born below 34 weeks of gestation who have a first temperature which is both between 36.5–37.5°C and measured within one hour of birth.

5g. Percentage of babies born below 34 weeks of gestation who receive their own mother's milk within 24 hours of birth.

5h. Perinatal Optimisation Pathway Compliance (Composite metric): Proportion of individual elements (5a – 5g above) achieved. Denominator is the total number of babies born below 34 weeks of gestation multiplied by the number of appropriate elements (eligibility according to gestation).

To minimise the need for local data collection to support these improvements the formal collection of process measure data can be restricted to the seven interventions listed in this section, the use of volume targeted ventilation and caffeine is recommended but these data are not currently recorded or presented with national datasets. In addition, the gestational limits for some of the indicators and/or the groups studies have been adjusted to align with current nationally collected data (e.g., data on babies born only below 34 weeks or data on the number of babies

	<p>receiving antenatal corticosteroids rather than the number of mothers)</p> <p><i>Outcome Indicators</i></p> <p>5i. Mortality to discharge in very preterm babies (National Neonatal Audit Programme (NNAP) definition) Percentage of babies born below 32 weeks gestation who die before discharge home, or 44 weeks post-menstrual age (whichever occurs sooner).</p> <p>5j. Preterm Brain Injury (NNAP definition): Percentage of babies born below 32 weeks gestational age with any of the following forms of brain injury:</p> <ul style="list-style-type: none"> ✓ Germinal matrix/ intraventricular haemorrhage ✓ Post haemorrhagic ventricular dilatation ✓ Cystic periventricular leukomalacia <p>5k. Percentage of perinatal mortality cases annually (using PMRT for analysis) where the prevention, prediction, preparation, or perinatal optimisation of preterm birth was a relevant issue.</p> <p>5l. Maternity care providers will provide outcome data to the Trust Board and share this with the LMNS relating to the incidence of women with a singleton pregnancy giving birth (liveborn and stillborn) as a % of all singleton births:</p> <ul style="list-style-type: none"> ✓ In the late second trimester (from 16+0 to 23+6 weeks). ✓ Pre-term (from 24+0 to 36+6 weeks).
<p>What are the indicators for Element 6</p>	<p><i>Process Indicators</i></p> <p>6a. Demonstrate an agreed pathway for women to be managed in a clinic, providing care to women with pre-existing diabetes only, where usual care involves joined-up multidisciplinary review (The core multidisciplinary team should consist of Obstetric Consultant, Diabetes Consultant, Diabetes Specialist Nurse, Diabetes Dietitian, Diabetes Midwife) and holistic pregnancy care planning – this should be a one stop clinic where possible and include a pathway for the provision/access to additional support (e.g. asylum support, psychology, mental health) either within the clinic or within a closely integrated service (with shared documentation etc).</p> <p>6b. Demonstrate an agreed pathway for referral to the regional maternal medicine for women with complex diabetes.</p>

	<p>6c. Demonstrate an agreed method of objectively recording blood glucose levels and achievement of glycaemic targets.</p> <p>6d. Demonstrate compliance with Continuous Glucose Monitoring (CGM) training and evidence of appropriate expertise within the MDT to support CGM and other technologies used to manage diabetes.</p> <p>6e. Demonstrate an agreed pathway (between maternity services, emergency departments and acute medicine) for the management of women presenting with Diabetic Ketoacidosis (DKA) during pregnancy. This should include a clear escalation pathway for specialist obstetric HDU or ITU input, with the agreed place of care depending on patients gestational age, DKA severity, local facilities, and availability of expertise.</p> <p><i>Outcome Indicators</i></p> <p>6f. The percentage of women with type 1 diabetes that have used CGM during pregnancy – reviewed via the National Pregnancy in Diabetes (NPID) dashboard (aiming for >95% of women).</p> <p>6g. The percentage of women with type 1 and type 2 diabetes that have had an HbA1c measured at the start of the third trimester (aiming for >95% of women).</p> <p>Compliance data for both outcome indicators should be reported by ethnicity and deprivation to ensure focus on at-risk and under-represented groups.</p>
<p>What considerations need to be made to ensure timely submission of data to evidence implementation and compliance with locally agreed progress measures?</p>	<p>Currently, SBLCB measures are not shown on the maternity services dashboard, therefore it cannot be used to evidence compliance for SA6. The implementation tool will provide trusts with the means to collate and evidence their SBLCB data.</p>
<p>Is there a requirement on Trusts to evidence SBLCB process and outcome measures through their data submissions to Maternity Services Data Set?</p>	<p>Trusts should be capturing SBLCB data as far as possible in their Maternity Information Systems/Electronic Patient Records and submitted to the MSDS. MSDS does not capture all process and outcome indicators given in the care bundle. A summary of this appears in the technical appendix for version 2 of the care bundle, available at: https://digital.nhs.uk/data-and-information/data-collections-and-data-sets/data-sets/maternity-services-data-set/tools-and-guidance</p>

	<p>Currently, SBLCB measures are not shown on the maternity services dashboard, therefore it cannot be used to evidence compliance for SA6. The implementation tool will provide trusts with the means to collate and evidence their SBLCB data.</p>
<p>Would a Trust be non-compliant if <60% of smokers set a quit date?</p>	<p>As stated in SA6, providers are required to demonstrate implementation of 70% of interventions across all 6 elements overall, and implementation of at least 50% of interventions in each individual element. The implementation tool will set out the evidence requirement for demonstrating compliance with each intervention. Where element process and outcome measures are listed in the evidence requirement, a performance threshold is recommended, but this is for agreement between a provider and their ICB in view of local circumstances.</p>
<p>The SBLCBv3 that was published on the 31st May 2023 included a typo in Appendix D Figure 6 with BMI as >18.5kg/m and it is not clear what “other features” mean</p>	<p>This has now been amended and states <18.5kg/m with further clarity provided regarding “other features”.</p>
<p>How do we provide evidence for the interventions that have been implemented?</p>	<p>The evidence requirements for each intervention are set out within the implementation tool. You will need to verify that you have an implemented service locally.</p>
<p>Will the eLfh modules be updated in line with SBLCBv3?</p>	<p>The SBLCB eLearning for Health modules is currently being updated in line with the latest iteration, Version 3 of the Care Bundle and will include a new section to support implementation of element 6. We have asked for the ultrasound element to be reviewed for its relevance, this was developed separately, and we will make sure the completion of the e learning is focussed on elements 1-6.</p>
<p>What is the deadline for reporting to NHS Resolution?</p>	<p>1 February 2024 at 12 noon</p>

Safety action 7: Listen to women, parents and families using maternity and neonatal services and coproduce services with users

<p>Required standard</p>	<p>1. Ensure a funded, user-led Maternity and Neonatal Voices Partnership (MNVP) is in place which is in line with the Delivery Plan and MNVP Guidance (due for publication in 2023). Parents with neonatal experience may give feedback via the MNVP and Parent Advisory Group.</p> <p>2. Ensuring an action plan is coproduced with the MNVP following annual CQC Maternity Survey data publication (due each January), including analysis of free text data, and progress monitored regularly by safety champions and LMNS Board.</p> <p>3. Ensuring neonatal and maternity service user feedback is collated and acted upon within the neonatal and maternity service, with evidence of reviews of themes and subsequent actions monitored by local safety champions.</p>
<p>Minimum evidential requirement for Trust Board</p>	<p>Evidence should include:</p> <ul style="list-style-type: none"> • Minutes of meetings demonstrating how feedback is obtained and evidence of service developments resulting from coproduction between service users and staff. • Evidence that MNVPs have the infrastructure they need to be successful. Workplans are funded. MNVP leads, formerly MVP chairs, are appropriately employed or remunerated and receive appropriate training, administrative and IT support. • The MNVP’s work plan. Evidence that it is fully funded, minutes of the meetings which developed it and minutes of the LMNS Board that ratified it. • Evidence that service users receive out of pocket expenses, including childcare costs and receive timely payment for these expenses. • Evidence that the MNVP is prioritising hearing the voices of neonatal and bereaved families as well as women from Black, Asian and Minority Ethnic backgrounds and women living in areas with high levels of deprivation, given the findings in the MBRRACE-UK reports about maternal death and morbidity and perinatal mortality.
<p>Validation process</p>	<p>Self-certification to NHS Resolution using the Board declaration form.</p>

What is the relevant time period?	Trusts should be evidencing the position as 7 December 2023
What is the deadline for reporting to NHS Resolution?	1 February 2023 at 12 noon

Technical guidance for Safety action 7

Technical guidance	
What is the Maternity and Neonatal Voices Partnership?	An MNVP listens to the experiences of women, birthing people, and families, and brings together service users, staff and other stakeholders to plan, review and improve maternity and neonatal care. MNVPs ensure that service user voice is at the heart of decision-making in maternity and neonatal services by being embedded within the leadership of provider Trusts and feeding into the local maternity and neonatal system (LMNS). MNVPs ensure service user voice influences improvements in the safety, quality, and experience of maternity and neonatal care.
We are unsure about the funding for Maternity and Neonatal Voices Partnerships	It is the responsibility of ICBs to: Commission and fund MNVPs, to cover each Trust within their footprint, reflecting the diversity of the local population in line with the ambition above.
What advice is there for Maternity and Neonatal Voices Partnership (MNVP) leads when engaging and prioritising hearing the voices of neonatal and bereaved service users, and what support or training is in place to support MNVP's?	<p>MNVPs should work in partnership with local specialist voluntary, community, and social enterprise (VCSEs) with lived experience to gather feedback. Engagement needs to be accessible and appropriate, particularly for neonatal and bereaved families. It is essential that you consider how you will protect people from being retraumatised through giving feedback on their experience. Training for MNVPs to engage with seldom heard or vulnerable communities may be required to ensure unintentional harm is avoided.</p> <p>MNVPs can also work in collaboration with their trust bereavement leads to ensure adequate support is in place for themselves and the families they may engage with. Attendance at the trust training could be beneficial.</p>
When will the MNVP guidance be published?	We are working with our stakeholders to publish the MNVP guidance as soon as possible. As it is not yet published, it is acknowledged that there may not be enough time ahead of the reporting period for full implementation of all the requirements of the MNVP guidance. Where an element of the guidance is not yet fully implemented, evidence must be presented that demonstrates progress towards full implementation within 12 months.

Safety action 8: Can you evidence the following 3 elements of local training plans and ‘in-house’, one day multi professional training?

<p>Required standard and minimum evidential requirement</p>	<ol style="list-style-type: none"> 1. A local training plan is in place for implementation of Version 2 of the Core Competency Framework. 2. The plan has been agreed with the quadrumvirate before sign-off by the Trust Board and the LMNS/ICB. 3. The plan is developed based on the “How to” Guide developed by NHS England.
<p>Validation process</p>	<p>Self-certification to NHS Resolution using the Board declaration form.</p>
<p>What is the relevant time period?</p>	<p>12 consecutive months should be considered from 1st December 2022 until 1st December 2023 to ensure the implementation of the CCFv2 is reported on and, an appropriate timeframe for trust boards to review.</p> <p>It is acknowledged that there will not be a full 90% compliance for new elements within the CCFv2 i.e. Diabetes. 90% compliance is required for all elements that featured in CCFv1</p>

Technical guidance for safety action 8

Technical guidance	
<p>What training should be covered in the local training plan to cover the six modules of the Core Competency Framework?</p>	<p>A training plan should be in place to implement all six core modules of the Core Competency Framework over a 3-year period, starting from MIS year 4 in August 2021 and up to July 2024. NHS England » Core competency framework version two</p> <p>Trusts should update their existing training plans in alignment with Version 2 of the Core Competency Framework.</p>
<p>How will the 90% attendance compliance be calculated?</p>	<p>The training requirements set out in the Core Competency Framework require 90% attendance of relevant staff groups by the end of the 12 month period</p>
<p>Where can I find the Core Competencies Framework and other additional resources?</p>	<ul style="list-style-type: none"> • https://www.england.nhs.uk/publication/core-competency-framework-version-two/ • Includes links to the documents: <ul style="list-style-type: none"> ○ Core competency framework version two: Minimum standards and stretch targets ○ ‘How to’ guide - a resource pack to support implementing the Core Competency Framework version two ○ Core competency framework: training needs analysis • NHS England V1 of the Core Competency Framework https://www.england.nhs.uk/publication/core-competency-framework/ • https://www.resus.org.uk/library/2021-resuscitation-guidelines/newborn-resuscitation-and-support-transition-infants-birth
<p>What training should be included to meet the requirements of the Core Competency Framework Version 2?</p>	<p>All 6 core modules in V2 of the Core Competency Framework (CCFv2) must be covered as detailed in the minimum standards.</p> <p>Trusts must be able to evidence the four key principles:</p> <ol style="list-style-type: none"> 1. Service user involvement in developing and delivering training. 2. Training is based on learning from local findings from incidents, audit, service user feedback,

	<p>and investigation reports. This should include reinforcing learning from what went well.</p> <p>3. Promote learning as a multidisciplinary team.</p> <p>Promote shared learning across a Local Maternity and Neonatal System.</p>
<p>Which maternity staff should be included for Module 2: Fetal monitoring and surveillance (in the antenatal and intrapartum period)?</p>	<p>Staff who have an intrapartum obstetric responsibility (including antenatal and triage) must attend the fetal surveillance training.</p> <p>Maternity staff attendees must be 90% compliant for each of the following groups to meet the minimum standards:</p> <ul style="list-style-type: none"> • Obstetric consultants • All other obstetric doctors contributing to the obstetric rota (without the continuous presence of an additional resident tier obstetric doctor) • Midwives (including midwifery managers and matrons, community midwives; birth centre midwives (working in co-located and standalone birth centres and bank/agency midwives). Maternity theatre midwives who also work outside of theatres. <p>Staff who do not need to attend include:</p> <ul style="list-style-type: none"> • Anaesthetic staff • Maternity critical care staff (including operating department practitioners, anaesthetic nurse practitioners, recovery and high dependency unit nurses providing care on the maternity unit) • MSWs • GP trainees
<p>Which maternity staff should be included for Module 3: Maternity emergencies and multiprofessional training?</p>	<p>Maternity staff attendees must include 90% of each of the following groups to meet the minimum standards:</p> <ul style="list-style-type: none"> • Obstetric consultants. • All other obstetric doctors (including staff grade doctors, obstetric trainees (ST1-7), sub speciality trainees, obstetric clinical fellows and foundation year doctors contributing to the obstetric rota. • Midwives (including midwifery managers and matrons), community midwives; birth centre midwives (working in co-located and standalone birth centres) and bank/agency midwives. • Maternity support workers and health care assistants (to be included in the maternity skill drills as a minimum) • Obstetric anaesthetic consultants. • All other obstetric anaesthetic doctors (staff grades and anaesthetic trainees) who contribute to the obstetric rota.

	<ul style="list-style-type: none"> • Maternity theatre staff are a vital part of the multidisciplinary team and are encouraged to attend the maternity emergencies and multiprofessional training, however they will not be required to attend to meet MIS year 5 compliance assessment • Neonatal staff are a vital part of the multidisciplinary team and are encouraged to attend the maternity emergencies and multiprofessional training, however there will be no formal threshold for attendance required to meet MIS year 5 compliance • At least one emergency scenario is to be conducted in the clinical area, ensuring full attendance from the relevant wider professional team, including theatre staff and neonatal staff
<p>Does the multidisciplinary emergency scenarios described in module 3 have to be conducted in the clinical area?</p>	<p>At least one emergency scenario needs to be conducted in the clinical area or at point of care. You need to ensure that 90% of your staff attend a minimum of one emergency scenario that is held in the clinical area, but not all of the scenarios have to be based in a clinical area.</p>
<p>Which staff should be included for Module 6: Neonatal basic life support?</p>	<p>Staff in attendance at births should be included for Module 6: Neonatal basic life support.</p> <p>This includes the staff listed below:</p> <ul style="list-style-type: none"> • Neonatal Consultants or Paediatric consultants covering neonatal units • Neonatal junior doctors (who attend any births) • Neonatal nurses (Band 5 and above) • Advanced Neonatal Nurse Practitioner (ANNP) • Midwives (including midwifery managers and matrons), community midwives, birth centre midwives (working in co-located and standalone birth centres) and bank/agency midwives. <p>The staff groups below are not required to attend neonatal basic life support training:</p> <ul style="list-style-type: none"> • All obstetric anaesthetic doctors (consultants, staff grades and anaesthetic trainees) contributing to the obstetric rota and • Maternity critical care staff (including operating department practitioners, anaesthetic nurse practitioners, recovery and high dependency unit nurses providing care on the maternity unit). • Local policy should determine whether maternity support workers are included in neonatal basic life support training.

<p>I am a NLS instructor, do I still need to attend neonatal basic life support training?</p>	<p>No, if you have taught on a course within MIS year 5 you do not need to attend neonatal basic life support training</p>
<p>I have attended my NLS training, do I still need to attend neonatal basic life support training?</p>	<p>No, if you have attended a course within MIS year 5 you do not need to attend neonatal basic life support training as well.</p>
<p>Which members of the team can teach basic neonatal life support training and NLS training?</p>	<p>Registered RC-trained instructors should deliver their local NLS courses and the in-house neonatal basic life support annual updates.</p> <p>A detailed response to this can be found on the CCF NHS Futures page CCF NHS Futures page - FAQ</p>
<p>What do we do if we do not have enough instructors who are trained as an NLS instructor and hold the GIC qualification?</p>	<p>Your Neonatal Consultants and Advanced Neonatal Practitioners (ANNP) will be qualified to deliver the training. You can also liaise with your Local Maternity and Neonatal System (LMNS) to explore sharing of resources.</p> <p>There may be difficulty in resourcing qualified trainers. Units experiencing this must provide evidence to their trust board that they are seeking mitigation across their LMNS and an action plan to work towards NLS and GIC qualified status by 31st March 2024. As a minimum, training should be delivered by someone who is up to date with their NLS training.</p>
<p>Who should attend certified NLS training in maternity?</p>	<p>Attendance on separate certified NLS training for maternity staff should be locally determined.</p>
<p>How do we involve services users in developing and <u>delivering</u> training?</p>	<p>Please refer to the “How To” guide for ideas on how to involve service users in the developing and delivering of training.</p> <p>This is Principle 1 of the CCFv2 that recommends MNVP leads could be a member of the multidisciplinary educational teams (MET) to support the planning and selection of themes/local learning requirements to reflect in the training.</p> <p>Ways in which service users and service user representatives can support the delivery of training include with video case studies, inviting service users to tell their story or inviting charitable/support organisations for example local Downs Syndrome groups; LGBTQIA+ Communities; or advocates for refugees.</p>

	<p>NHS England will be sharing examples of practice over the year and on their NHS Futures page.</p>
<p>The TNA suggests periods of time required for each element of training, for example 9 hours for fetal monitoring training. Is this a mandated amount of time?</p>	<p>The TNA has been inputted with example times to demonstrate how the calculations are made for the backfill of staff that is required to put a training plan in place.</p> <p>The hours for each element of training can be flexed by the individual trust in response to their own local learning needs.</p>
<p>Do all the modules within the CCF require a multidisciplinary attendance?</p>	<p>Multidisciplinary team working has an evidence-base and has been highlighted in The Kirkup Report (2022). Key Action 3 (Flawed Team working) was a significant finding with the recommendation to improve teamworking with reference to establishing common purpose, objectives, and training from the outset. It is therefore a requirement that there is a strong emphasis on multidisciplinary training throughout the modules in response to local incidents.</p> <p>The staff groups within the multidisciplinary teams being trained may also vary, depending on the incident/emergency being covered.</p>

Safety action 9: Can you demonstrate that there are robust processes in place to provide assurance to the Board on maternity and neonatal safety and quality issues?

<p>Required standard</p>	<p>a) All six requirements of Principle 1 of the Perinatal Quality Surveillance Model must be fully embedded.</p> <p>b) Evidence that discussions regarding safety intelligence; concerns raised by staff and service users; progress and actions relating to a local improvement plan utilising the Patient Safety Incident Response Framework are reflected in the minutes of Board, LMNS/ICS/ Local & Regional Learning System meetings.</p> <p>c) Evidence that the Maternity and Neonatal Board Safety Champions (BSC) are supporting the perinatal quadrumvirate in their work to better understand and craft local cultures.</p>
<p>Minimum evidential requirement for Trust Board</p>	<p>Evidence for point a) is as per the six requirements set out in the Perinatal Quality Surveillance Model and specifically:</p> <ul style="list-style-type: none"> • Evidence that a non-executive director (NED) has been appointed and is working with the Board safety champion to address quality issues. • Evidence that a monthly review of maternity and neonatal quality is undertaken by the Trust Board, using a minimum data set to include a review of thematic learning of all maternity Serious Incidents (SIs). • To review the perinatal clinical quality surveillance model in full and in collaboration with the local maternity and neonatal system (LMNS) lead and regional chief midwife, provide evidence to show how Trust-level intelligence is being shared to ensure early action and support for areas of concern or need. <p>Evidence for point b)</p> <ul style="list-style-type: none"> • Evidence that in addition to the monthly Board review of maternity and neonatal quality as described above, the Trust’s claims scorecard is reviewed alongside incident and complaints data. Scorecard data is used to agree targeted interventions aimed at improving patient safety and reflected in the Trusts Patient Safety Incident Response Plan. This should continue to be undertaken quarterly as detailed in MIS year 4. These discussions

	<p>must be held at least twice in the MIS reporting period at a Trust level quality meeting. This can be a Board or directorate level meeting.</p> <p>Evidence for point c):</p> <p>Evidence that the Board Safety Champions have been involved in the NHS England Perinatal Culture and Leadership Programme. This will include:</p> <ul style="list-style-type: none"> • Evidence that both the non-executive and executive maternity and neonatal Board safety champion have registered to the dedicated FutureNHS workspace to access the resources available. • Evidence in the Board minutes that the Board Safety Champion(s) are meeting with the Perinatal 'Quad' leadership team at a minimum of quarterly (a minimum of two in the reporting period) and that any support required of the Board has been identified and is being implemented.
<p>Validation process</p>	<p>Self-certification to NHS Resolution using the Board declaration form.</p>
<p>What is the relevant time period?</p>	<p>Time period for points a and b)</p> <ul style="list-style-type: none"> • Evidence of a revised written pathway, in line with the perinatal quality surveillance model, that is visible to staff and meets the requirements detailed in part a) and b) of the action should be in place based on previous requirements. The expectation is that if work is still in progress, this will have been completed by 1st December 2023. • The expectation is that discussions regarding safety intelligence, including the number of incidents reported as serious harm, themes identified, and actions being taken to address any issues; staff and service user feedback; minimum staffing in maternity services and training compliance are continuing to take place at Board level monthly. If for any reason they have been paused, they should be reinstated no later than 1 July 2023. • The expectation is for ongoing engagement sessions with staff as per year 4 of the scheme. If for any reason these have been paused, they should be recommenced no later than 1 July 2023. The reason for pausing feedback sessions should be captured in the minutes of the Board meeting, detailing mitigating actions to prevent future disruption to these sessions. • Progress with actioning named concerns from staff engagement sessions are visible to both maternity

	<p>and neonatal staff and reflects action and progress made on identified concerns raised by staff and service users from no later than the 17th July 2023.</p> <ul style="list-style-type: none"> Evidence that a review of the Trust's claims scorecard is reviewed alongside incident and complaint data and discussed by the maternity, neonatal and Trust Board level safety champions at a Trust level (Board or directorate) quality meeting by 17th July 2023. At least one additional meeting must have been undertaken before the end of the year 5 scheme demonstrating oversight of progress with any identified actions from the first review as part of the PSIRF plan. This should continue to be undertaken quarterly as detailed in MIS year 4. <p>Time period for points c)</p> <ul style="list-style-type: none"> Evidence that both the non-executive and executive maternity and neonatal Board safety champion have registered to the dedicated FutureNHS workspace to access the resources available no later than 1 August 2023. Evidence in the Board minutes that the Board Safety Champion(s) are meeting with the perinatal 'Quad' leadership team as a minimum of quarterly and that any support required of the Board has been identified and is being implemented. There must have been a minimum of 2 meetings held by 1 February 2024
<p>What is the deadline for reporting to NHS Resolution?</p>	<p>By 1 February 2024 at 12 noon</p>
<p>Where can I find additional resources?</p>	<p>implementing-a-revised-perinatal-quality-surveillance-model.pdf (england.nhs.uk)</p> <p>Measuring culture in maternity services: Safety Culture Programme for Maternal and neonatal services: https://drive.google.com/file/d/1bzAqOcf5A5XHR8HWBZnLzH6qsG_SqXoa/view?usp=sharin</p> <p>Maternity and Neonatal Safety Champions Toolkit September 2020 (england.nhs.uk) NHS England » Maternity and Neonatal Safety Improvement Programme</p> <p>The Safety Culture - Maternity & Neonatal Board Safety Champions - FutureNHS Collaboration Platform workspace is a dedicated place for Non-Executive Director and Executive Director maternity and neonatal Board safety champions to access the culture and leadership</p>

	<p>programme, view wider resources and engage with a community of practice to support them in their roles.</p> <p>The Perinatal Culture and Leadership Programme - Maternity Local Transformation Hub - Maternity (future.nhs.uk) is a dedicated space for NHS England's Perinatal Culture and Leadership Programmes, with resources for senior leaders and their teams to support local safety culture work.</p>
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Technical guidance for safety action 9

Technical guidance	
<p>What is the expectation around the Perinatal Quality Surveillance Model?</p>	<p>The Perinatal Quality Surveillance Model must be reviewed and the local pathway for sharing intelligence updated. This revised pathway should:</p> <ul style="list-style-type: none"> • Describe the local governance processes in place to demonstrate how intelligence is shared from the floor to Board. • Formalise how Trust-level intelligence will be shared with the LMNS/ICS quality group and regional quality groups involving the Regional Chief Midwife and Lead Obstetrician.
<p>What do we need to include in the dashBoard presented to Board each month?</p>	<p>The dashboard can be locally produced, based on a minimum data set as set out in the Board level measures. It must include the number of incidents reported as serious harm, themes identified, and actions being taken to address any issues; SUV feedback; staff feedback from frontline champions' engagement sessions; minimum staffing in maternity services and training compliance.</p> <p>The dashboard can also include additional measures as agreed by the Trust.</p>
<p>We had not continued to undertake monthly feedback sessions with the Board safety champion what should we do?</p>	<p>Parts a) and b) of the required standards build on the year three and four requirement of the maternity incentive scheme in building visibility and creating the conditions for staff to meet and establish a relationship with their Board safety champions to raise concerns relating to safety.</p> <p>The expectation is that Board safety champions have continued to undertake quarterly engagement sessions as described above.</p> <p>Part b) requires that progress with actioning named concerns from staff feedback sessions are visible. This builds on requirements made in year three of the maternity incentive scheme and the expectation is that this should have been continued.</p> <p>If these have not been continued, this needs to be reinstated by no later than 1 July 2023.</p>
<p>We are a Trust with more than one site. Do we need to complete the same frequency of engagement sessions in each site as a Trust on one site?</p>	<p>Yes. The expectation is that the same number of engagement sessions are completed at each individual site on a quarterly basis.</p>

<p>What is the rationale for the Board level safety champion safety action?</p>	<p>It is important to ensure all staff are aware of who their frontline and Board safety champions are if concerns are to be actively shared. Sharing of insights and good practice between providers, their LMNS, ICS and regional quality groups should be optimised. The development of a local pathway which describes these relationships, how sharing of information will take place and names of the relevant leaders, will support this standard to realise its aims. The guidance in the link below will support the development of this pathway.</p> <p>Maternity-and-Neonatal-Safety-Champions-Toolkit--2020.pdf</p>
<p>Where can I find more information re my Trust's scorecard?</p>	<p>More information regarding your Trust's scorecard can be found here</p> <p>2021 Scorecards launch - NHS Resolution</p> <p>https://resolution.nhs.uk/2020/10/27/claims-scorecards-for-2020/</p>
<p>What are the expectations of the Board safety champions in relation to quality improvement work undertaken by the maternity and neonatal quality improvement programme?</p>	<p>The Board safety Champions will be expected to continue their support for quality improvement by working with the designated improvement leads to participate and mobilise improvement via the MatNeo Patient Safety Networks. Trusts will be required to undertake improvement including data collection and testing work aligned to the national priorities.</p>
<p>What is the expectation for Trusts to undertake culture surveys?</p>	<p>Every maternity and neonatal service across England will be involved in the Perinatal Culture and Leadership Programme. As part of this programme every service will be undertaking work to meaningfully understand the culture of their services. This diagnostic will either be a SCORE culture survey or an alternative as agreed with the national NHSE team. It is expected that diagnostic findings are shared with the Trust Board to enable an understanding and garner support for the work to promote optimal safety cultures, based on the diagnostic findings.</p>
<p>What if our maternity and neonatal services are not undertaking the SCORE culture survey as part of the national programme?</p>	<p>The national offer to undertake a SCORE culture is a flexible, opt out offer. If your maternity and neonatal services demonstrated that they were already completing work to meaningfully understand local culture, and therefore opted out of the SCORE survey, the expectation is that the Board receives updates on this alternative work.</p>
<p>What are the expectations of the NED and Exec Board safety champion in relation to</p>	<p>As detailed in previous years MIS guidance, regular engagement between Board Safety Champions and senior perinatal leadership teams provide an opportunity to share</p>

<p>their support for the Perinatal Culture and Leadership Programme (PCLP), culture surveys and ongoing support for the Perinatal ‘Quad’ Leadership teams? / What should be discussed at the bi-monthly meetings between the Board Safety Champion(s) and the Perinatal ‘Quad’ Leadership teams?</p>	<p>safety intelligence, examples of best practice and identified areas of challenge.</p> <p>The meetings should be conducted in an appreciative way, with the perinatal teams being open and transparent and the Board Safety Champions being curious and supportive.</p> <p>As a minimum the content should cover:</p> <ul style="list-style-type: none"> - Learning from the Perinatal Culture and Leadership Development Programme so far - Plans to better understand their local culture. This will be use of the SCORE culture survey, or suitable alternative as agreed by the national NHS England team. - Updates on the SCORE survey, or alternative when undertaken. - Updates on identified areas for improvement following the local diagnostic, along with any identified support required from the Board. NB, a formal report following this work should be presented at Board by the Perinatal leadership team. <p>Progress with interventions relating to culture improvement work, and any further support required from the Board</p>
<p>Clarification as to evidence required to meet the standard: <i>Evidence that both the non-executive and executive maternity and neonatal Board safety champion have registered to the dedicated FutureNHS workspace to access the resources available.</i></p>	<p>The NED and Exec Board Safety Champion will be able to evidence they have registered on the FutureNHS Safety Culture - Maternity & Neonatal Board Safety Champions - FutureNHS Collaboration Platform workspace through minutes of a trust board meeting providing confirmation of specific resources accessed and how this has been of benefit. This will be reported as part of the board submission to NHS Resolution.</p>
<p>How often should the Board Safety Champions be meeting and engaging with the perinatal ‘Quad’ team?</p>	<p>Meetings between the Board Safety Champion(s) and Quad member(s) should be occurring a minimum of quarterly. We would expect a minimum of two meetings during this reporting period.</p>
<p>Who is expected to have undertaken the Perinatal Culture and Leadership Quad programme?</p>	<p>The expectation is that the senior perinatal leadership team (the Quad) have undertaken the PCLP. This will be representation from the midwifery, obstetric, neonatal, and operational professional groups, usually consisting of the</p>

	DoM/HoM, clinical lead / CD for obstetrics, clinical lead for neonates and the operational manager.
Is there an expectation that the board safety champions have undertaken the programme?	The Board Safety Champions should be supporting the Quad and their work as part of the PCLP, but there is no expectation for them to attend the programme.
Evidence that a monthly review – Most Trust meet bi-monthly (every other month) & are unable to meet this requirement	A review must be undertaken at every board meeting. If this is bi-monthly that will be sufficient, but this is the minimum requirement.
Examples have been requested for how to review the data from scorecards	The key to making this exercise meaningful is the triangulation of the data. Categorisation of the historic claims on the scorecard and any action taken, then presenting these alongside current incidents and complaints. This allows identification of potential themes or trends, identification of the impact of any learning, and allows you to act quickly if any historic themes re-emerged. An example is now available from the MIS team at NHS Resolution, and staff are happy to talk through this process if it is helpful.
The perinatal quality surveillance model requires review in collaboration with the local maternity and neonatal system (LMNS) lead and regional chief midwife to provide evidence of trust-level intelligence being shared and actions reported on areas of concern. This needs to happen before 1 st July and therefore does not give trusts enough time to carry out this review	The expectation is that this process should already be in place as it was a requirement in previous years, with the year 4 requirement for this to be in place by 16 th June 2022. However, in recognition of the challenges of embedding a new quality surveillance model the timeframe of the 1 st July has been amended to 1 st December 2023 to allow additional time for trusts.
Clarification as to what constitutes a trust board, can sub committees be categorised as a board?	This refers solely to the Board of the trust, and it is a requirement that the board oversees the quality of their perinatal services at every meeting.

Safety action 10: Have you reported 100% of qualifying cases to Healthcare Safety Investigation Branch (HSIB) (*known as Maternity and Newborn Safety Investigations Special Health Authority (MNSI) from October 2023*) and to NHS Resolution's Early Notification (EN) Scheme from 6 December 2022 to 7 December 2023?

<p>Required standard</p>	<p>A) Reporting of all qualifying cases to HSIB/ MNSI from 6 December 2022 to 7 December 2023.</p> <p>B) Reporting of all qualifying EN cases to NHS Resolution's Early Notification (EN) Scheme from 6 December 2022 until 7 December 2023.</p> <p>C) For all qualifying cases which have occurred during the period 6 December 2022 to 7 December 2023, the Trust Board are assured that:</p> <ul style="list-style-type: none"> i. the family have received information on the role of HSIB//MNSI and NHS Resolution's EN scheme; and ii. there has been compliance, where required, with Regulation 20 of the Health and Social Care Act 2008 (Regulated Activities) Regulations 2014 in respect of the duty of candour.
<p>Minimum evidential requirement for Trust Board</p>	<p>Trust Board sight of Trust legal services and maternity clinical governance records of qualifying HSIB//MNSI/EN incidents and numbers reported to HSIB//MNSI and NHS Resolution.</p> <p>Trust Board sight of evidence that the families have received information on the role of HSIB/MNSI and EN scheme.</p> <p>Trust Board sight of evidence of compliance with the statutory duty of candour.</p>
<p>Validation process</p>	<p>Self-certification to NHS Resolution using Board declaration form.</p> <p>Trusts' reporting will be cross-referenced against the HSIB/MNSI database and the National Neonatal Research Database (NNRD) and NHS Resolution database for the number of qualifying incidents recorded for the Trust and externally verify that standard a) and b) have been met in the relevant reporting period.</p> <p>In addition, for standard C1 there is a requirement to complete field on the Claims Reporting Wizard (CMS), whether families have been advised of NHS Resolution's</p>

	involvement, completion of this will also be monitored, and externally validated.
What is the relevant time period?	Reporting to HSIB – from 6 December 2022 to 7 December 2023 Reporting period to HSIB and to NHS Resolution – from 6 December 2022 to 7 December 2023
What is the deadline for reporting to NHS Resolution?	By 1 February 2024 at 12 noon

Technical guidance for Safety action 10

Technical guidance	
Where can I find information on HSIB?	Information about HSIB/ MNSI and maternity investigations can be found on the HSIB website https://www.hsib.org.uk/ From October 2023 this website will no longer be available and the HSIB maternity programme will be hosted by the CQC. Further details will be circulated once available.
Where can I find information on the Early Notification scheme?	Information about the EN scheme can be found on the NHS Resolution's website: <ul style="list-style-type: none"> • EN main page • Trusts page • Families page
What are qualifying incidents that need to be reported to HSIB/MNSI?	Qualifying incidents are term deliveries ($\geq 37+0$ completed weeks of gestation), following labour, that resulted in severe brain injury diagnosed in the first seven days of life. These are any babies that fall into the following categories: <ul style="list-style-type: none"> • Was diagnosed with grade III hypoxic ischaemic encephalopathy (HIE) [or] • Was therapeutically cooled (active cooling only) [or] • Had decreased central tone AND was comatose AND had seizures of any kind. <p>Once HSIB/MNSI have received the above cases they will triage them and advise which investigations they will be progressing for babies who have clinical or MRI evidence of neurological injury.</p>
What is the definition of labour used by HSIB and EN?	The definition of labour used by HSIB includes: <ul style="list-style-type: none"> • Any labour diagnosed by a health professional, including the latent phase (start) of labour at less than 4cm cervical dilatation. • When the mother called the maternity unit to report any concerns of being in labour, for example (but not limited to) abdominal pains, contractions, or suspected ruptured membranes (waters breaking). • Induction of labour (when labour is started artificially). • When the baby was thought to be alive following suspected or confirmed pre-labour rupture of membranes.
Changes in the EN reporting requirements for Trust <u>from</u>	With effect from 1 April 2022, Trusts have been required to continue to report their qualifying cases to HSIB via the electronic portal. In addition, Trusts' will need to notify NHS Resolution, via the Claims Reporting Wizard, of qualifying EN cases once HSIB have confirmed

<p><u>1 April 2022 going forward</u></p>	<p>they are progressing an investigation due to clinical or MRI evidence of neurological injury.</p> <p>The Trust must share the HSIB//MNSI report with the EN team within 30 days of receipt of the final report by uploading the HSIB/MNSI report to the corresponding CMS file via DTS. Trusts are advised they should avoid uploading HSIB/MNSI reports in batches (e.g. waiting for a number of reports to be received before uploading).</p> <p>Once the HSIB/MNSI report has been shared by the Trust, the EN team will triage the case based on the MRI findings and then confirm to the Trust which cases will proceed to a liability investigation.</p>
<p>What qualifying EN cases need to be reported to NHS Resolution?</p>	<ul style="list-style-type: none"> Trusts are required to report cases to NHS Resolution where HSIB are progressing an investigation i.e. those where there is clinical or MRI evidence of neurological injury. Where a family have declined a HSIB investigation, but have requested an EN investigation, the case should also be reported to NHS Resolution. <p>There is more information here:</p> <p>ENS Reporting Guide - July 2023 (for Member Trusts) - NHS Resolution</p>
<p>Cases that do not require to be reported to NHS Resolution</p>	<ul style="list-style-type: none"> Cases where families have requested a HSIB/MNSI investigation where the baby has a normal MRI. Cases where Trusts have requested a HSIB/MNSI investigation where the baby has a normal MRI. Cases that HSIB/MNSI are not investigating.
<p>What if we are unsure whether a case qualifies for referral to HSIB/MNSI or NHS Resolution?</p>	<p>For cases from 1 April 2022, if the baby has a clinical or MRI evidence of neurological injury and the case is being investigated by HSIB/MNSI because of this, then the case should also be reported to NHS Resolution via the claims wizard along with the HSIB/MNSI reference number (document the HSIB reference in the “any other comments box”).</p> <p>Please select Sangita Bodalia, Head of Early Notification (legal) at NHS Resolution on the Claims Reporting Wizard.</p> <p>Should you have any queries, please contact a member of the Early Notification team to discuss further (nhr.enteam@nhs.net) or HSIB/MNSI maternity team (maternity@hsib.org.uk).</p>
<p>How should we report cases to NHS Resolution?</p>	<p>Trusts’ will need to notify NHS Resolution, via the Claims Reporting Wizard, of qualifying EN cases once they have been confirmed by HSIB/MNSI as under investigation. They must also complete the EN Report form and attach this to the Claims Reporting Wizard:</p> <p>https://resolution.nhs.uk/wp-content/uploads/2023/05/EN-Report-Form.pdf</p>
<p>What happens once we have</p>	<p>Following the HSIB/MNSI investigation, and on receipt of the HSIB/MNSI report and MRI report, following triage, NHS Resolution will overlay an</p>

reported a case to NHS Resolution?	investigation into legal liability. Where families have declined an HSIB/MNSI investigation, no EN investigation will take place, unless the family requests this.
Candour	<p>Regulation 20 of the Health and Social Care Act 2008 (Regulated Activities) Regulations 2014 provides that a health service body must act in an open and transparent way with relevant persons in relation to care and treatment provided.</p> <p>https://www.legislation.gov.uk/ukdsi/2014/9780111117613/regulation/20</p> <p>In accordance with the statutory duty of candour, in all relevant cases, families should be ‘advised of what enquiries in relation to the incident the health body believes are appropriate’ – 20(3)(a) and details of any enquiries to be undertaken (20)(4)(b). This includes details of enquiries undertaken by HSIB and NHS Resolution.</p> <p>Assistance can be found on NHS Resolution’s website, including the guidance ‘Saying Sorry’ as well as an animation on ‘Duty of Candour’</p> <p>Trust Boards should be aware that if a breach of the statutory duty of candour in relation to a qualifying case comes to light which calls the validity of certification into question this may result in a review of the Trust submission and in addition trigger escalation to the CQC.</p>
Will we be penalised for late reporting?	<p>Trusts are strongly encouraged to report all incidents to HSIB/MNSI as soon as they occur and to NHS Resolution as soon as HSIB/MNSI have confirmed that they are taking forward an investigation.</p> <p>Trusts will meet the required standard if they can evidence to the Trust Board that they have reported all qualifying cases to HSIB/MNSI and where applicable, to NHS Resolution and this is confirmed with data held by NNRD and HSIB/MNSI and NHS Resolution.</p> <p>Where qualifying cases are not reported within two years from the date of the incident, these cases will no longer be eligible for investigation under the Early Notification scheme.</p>

FAQs for year five of the maternity incentive scheme

<p>Does ‘Board’ refer to the Trust Board or would the Maternity Services Clinical Board suffice?</p>	<p>We expect Trust Boards to self-certify the Trust’s declarations following consideration of the evidence provided. It is recommended that all executive members e.g. finance directors are included in these discussions.</p> <p>If subsequent verification checks demonstrate an incorrect declaration has been made, this may indicate a failure of governance which we will escalate to the appropriate arm’s length body/NHS system leader. We escalate these concerns to the Care Quality Commission for their consideration if any further action is required, and to the NHS England and NHS Improvement regional director, the Deputy Chief Midwifery Officer, regional chief midwife and Department of Health and Social Care (DHSC) for information.</p> <p>In addition, we now publish information on the NHS Resolution website regarding the verification process, the name of the Trusts involved in the MIS re-verification process as well as information on the outcome of the verification (including the number of safety actions not passed).</p>
<p>Do we need to discuss this with our commissioners?</p>	<p>Yes, the CEO of the Trust will ensure that the Accountable officer (AO) for their ICB is apprised of the MIS safety action evidence and declaration form. The CEO and AO must both sign the Board declaration form as evidence that they are both fully assured and in agreement with the evidence to be submitted to NHS Resolution</p> <p>The declaration form must be signed by both CEO and the Accountable Officer of Clinical Commissioning Group/Integrated Care System before submission.</p>
<p>Our current commissioning systems are changing, what does this mean in terms of sign off?</p>	<p>There have been structural changes for NHS Commissioning as a result of 2022 Health and Care Act. Where this has caused significant reconfiguration and adjustment of commissioning systems, sign off by the accountable lead for commissioning maternity services can be considered</p>
<p>Will NHS Resolution cross check our results with external data sources?</p>	<p>Yes, we will cross reference results with external data sets from: MBRRACE-UK data (safety action 1 point a, b, c), NHS England& Improvement regarding submission to the Maternity Services Data Set (safety action 2, sub-requirements 2 and 3), and against the National Neonatal Research Database (NNRD) and HSIB for the number of qualifying incidents reportable to HSIB (safety action 10,</p>

	<p>standard a)). Your overall submission may also be sense checked with CQC maternity data, HSIB data etc.</p> <p>For more details, please refer to the conditions of the scheme.</p>
<p>What documents do we need to send to you?</p>	<p>The Board declaration form will need to be sent to NHS Resolution. Ensure the Board declaration form has been approved by the Trust Board, signed by the Trust CEO and Accountable Officer (IBO). Where relevant, an action plan is completed for each action the Trust has not met.</p> <p>Please do not send your evidence or any narrative related to your submission to NHS Resolution.</p> <p>Any other documents you are collating should be used to inform your discussions with the Trust Board. These documents and any other evidence used to assure the Board of your position must be retained. In the event that NHS Resolution are required to review supporting evidence at a later date it must be made available as it was presented to support Board assurance at the time of submission.</p>
<p>Where can I find the Trust reporting template which needs to be signed off by the Board?</p>	<p>The Board declaration Excel form will be published on the NHS Resolution website in 2023.</p> <p>It is mandatory that Trusts use the Board declaration Excel form when declaring compliance to NHS Resolution. If the Board declaration form is not returned to NHS Resolution by 12 noon on 1 February 2024, NHS Resolution will treat that as a nil response.</p>
<p>Will you accept late submissions?</p>	<p>We will not accept late submissions. The Board declaration form and any action plan will need to be submitted to us no later than 12 noon on 1 February 2024. If not returned to NHS Resolution by 12 noon on 1 February 2024, NHS Resolution will treat that as a nil response.</p>
<p>What happens if we do not meet the ten actions?</p>	<p>Only Trusts that meet all ten maternity safety actions will be eligible for a payment of at least 10% of their contribution to the incentive fund.</p> <p>Trusts that do not meet this threshold need to submit a completed action plan for each safety action they have not met.</p> <p>Trusts that do not meet all ten safety actions may be eligible for a small discretionary payment to help them to make progress against one or more of the ten safety actions.</p>

Our Trust has queries, who should we contact?	Any queries prior to the submission date must be sent in writing by e-mail to NHS Resolution via nhsr.mis@nhs.net
Please can you confirm who outcome letters will be sent to?	The maternity incentive scheme outcome letters will be sent to Trust's nominated MIS leads.
What if Trust contact details have changed?	It's the responsibility of the Trusts to inform NHS Resolution of the most updated link contacts via link on the NHS Resolution website. https://resolution.nhs.uk/services/claims-management/clinical-schemes/clinical-negligence-scheme-for-Trusts/maternity-incentive-scheme/maternity-incentive-scheme/
What if my Trust has multiple sites providing maternity services?	Multi-site providers will need to demonstrate the evidential requirements for each individual site. The Board declaration should reflect overall actions met for the whole Trust.
Will there be a process for appeals this year?	<p>Yes, there will be an appeals process. Trusts will be allowed 14 days to appeal the decision following the communication of results.</p> <p>The Appeals Advisory Committee (AAC) will consider any valid appeal received from participating Trusts within the designated appeals window timeframe.</p> <p>There are two possible grounds for appeal:</p> <ul style="list-style-type: none"> • alleged failure by NHS Resolution to comply with the published 'conditions of scheme' and/or guidance documentation • technical errors outside the Trusts' control and/or caused by NHS Resolution's systems which a Trust alleges has adversely affected its CNST rebate. <p>NHS Resolution clinical advisors will review all appeals to ensure validity, to determine if these fall into either of the two specified Grounds for Appeal. If the appeal does not relate to the specified grounds it will be rejected, and NHS Resolution will correspond with the Trust directly with no recourse to the AAC.</p> <p>Any appeals relating to a financial decision made, for example a discretionary payment made against a submitted action plan, will not be considered.</p> <p>Further detail on the appeals window dates will be communicated at a later date.</p>

Merging Trusts	<p>Trusts that will be merging during the year four reporting period (30 May 2023 – 7 December 2023) must inform NHS Resolution of this via nhsr.mis@nhs.net so that arrangements can be discussed.</p> <p>In addition, Trust's Directors of Finance or a member of the finance team must make contact with the NHS Resolution finance team by email at nhsr.contributions@nhs.net as soon as possible to discuss the implications of the changes in the way maternity services are to be provided. This could have an impact on the contributions payable for your Trust in 2022/23 and the reporting of claims and management of claims going forward.</p>
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Q&A regarding Maternity Safety Strategy and CNST maternity incentive scheme

Q1) What are the aims of the maternity incentive scheme?

The Maternity Safety Strategy sets out the Department of Health and Social Care's ambition to reward those who have taken action to improve maternity safety.

Using CNST to incentivise safer care received strong support from respondents to our *2016 CNST consultation* where 93% of respondents wanted incentives under CNST to fund safety initiatives. This is also directly aligned to the Intervention objective in our *Five year strategy: Delivering fair resolution and learning from harm*.

Q2) Why have these safety actions been chosen?

The ten actions have been agreed with the national maternity safety champions, Matthew Jolly and Jacqueline Dunkley-Bent, in partnership with NHS Digital, NHS England, NHS Improvement, the Care Quality Commission (CQC), Mothers and Babies: Reducing Risk through Audits and Confidential Enquiries (MBRRACE-UK), Obstetric Anaesthetists Association, Royal College of Anaesthetists, HSIB, Royal College of Obstetricians and Gynaecologists and the Royal College of Midwives.

The Collaborative Advisory Group (CAG) previously established by NHS Resolution to bring together other arm's length bodies and the Royal Colleges to support the delivery of the CNST maternity incentive scheme has also advised NHS Resolution on the safety actions.

Q3) Who has been involved in designing the scheme?

The National Maternity Safety Champions were advised by a group of system experts including representatives from:

- NHS England & Improvement
- NHS Digital
- MBRRACE-UK
- Royal College of Obstetricians and Gynaecologists
- Royal College of Midwives
- Royal College of Anaesthetists
- Royal College of Paediatrics and Child Health
- Care Quality Commission
- Department of Health and Social Care
- NHS Resolution
- Clinical obstetric, midwifery and neonatal staff
- HSIB/CQC

Q4) How will Trusts be assessed against the safety actions and by when?

Trusts will be expected to provide a report to their Board demonstrating achievement (with evidence) of each of the ten actions. The Board must consider the evidence and complete the Board declaration form for result submission.

Completed Board declaration forms must be discussed with the commissioner(s) of the Trust's maternity services, signed off by the Board and then submitted to NHS Resolution (with action plans for any actions not met) at nhsr.mis@nhs.net **by 12 noon on 1 February 2024**

Please note:

- Board declaration forms will be reviewed by NHS Resolution and discussed with the scheme's Collaborative Advisory Group.
- NHS Resolution will use external data sources to validate some of the Trust's responses, as detailed in the technical guidance above.
- If a completed Board declaration form is not returned to NHS Resolution by 12 noon on **1 February 2024**, NHS Resolution will treat that as a nil response.

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**Quality
Accounts
2022/23**

Agenda Item No: 6





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Why are we producing a quality account?

All NHS Trusts are required to produce an annual Quality Account, to provide information on the quality of the services it provides to patients and their families.

The Royal Wolverhampton NHS Trust (RWT) welcomes the opportunity to be transparent and able to demonstrate how well we are performing, considering the views of service users, carers, staff, and the public. We can use this information to make decisions about our services and to identify areas for improvement.

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Getting involved

We would like to hear your views on our Quality Account. If you are interested in commenting or seeing how you can get involved in providing input into the Trust's future quality improvement priorities, please contact:

The Communications Team
The Royal Wolverhampton NHS Trust
New Cross Hospital
Wolverhampton Road
Wolverhampton
WV10 0QP

Email:
rwh-tr.communicationsdept@nhs.net

Statement on Quality from the Chief Executive

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I am delighted to present the Quality Accounts for the year 2022/23, which represent our commitment to transparency, accountability, and the delivery of exceptional healthcare services to the people and communities we serve. This document outlines the work undertaken during the past financial year to deliver on the objectives we set for ourselves last year, which support our aim to foster a culture of continuous quality improvement across our organisations.

This has been an important year for us, with the launch of our joint Trust strategy. This formalises the strategic collaboration between The Royal Wolverhampton NHS Trust and Walsall Healthcare NHS Trust and sets out our vision for what we will achieve together. Working collaboratively with staff, partners and service users, we have agreed four overarching strategic aims, which we refer to as the “four Cs”:

Excel in the delivery of Care

We will deliver exceptional care by putting patients at the heart of everything we do, embedding a culture of learning and continuous improvement.

Support our Colleagues

We will be inclusive employers of choice in the Black Country that attract, engage and retain the best colleagues reflecting the diversity of our populations.

Improve the health of our Communities

We will positively contribute to the health and wellbeing of the communities we serve.

Effective Collaboration

We will provide sustainable healthcare services that maximise efficiency by effective collaboration with our partners.

These four Cs are aligned to our overall vision, which is **“To deliver exceptional care together to improve the health and wellbeing of our communities”**. This year, everything we do across both organisations will contribute to achieving goals within at least one of these priority areas. You can read our strategy in full on our website.

Statement on Quality from the Chief Executive



The closer ways of working across Walsall and Wolverhampton have already delivered many benefits for our local communities - enabling us to use services more efficiently, share learning and best practice, and offer patients more choice and flexibility in how they receive care.

Our shared vision and strategy have informed the creation of our new shared Quality Framework. This plan sets out in detail, with milestones, the actions we will take over the next two years to put quality at the forefront of all we do - further developing and enhancing our workforce, their skills and knowledge, and ultimately the care that we provide. This document is also published on our website.

This year, we will celebrate and look back on 75 years of the NHS. The very fact that our two Trusts can look to the future and set ourselves such ambitious shared goals, is entirely down to the hard work of our staff. In my years as an NHS chief executive, I have witnessed many changes within our health service, but what never changes is how humbled I am by the dedication and passion displayed by all those on the front line, and all who support them behind the scenes, on a daily basis.

We saw the very best of our services during the height of the pandemic, when our resilience was tested to its foundations. But though the immediate pressures placed on us by COVID-19 may have lessened this year, a whole new set of challenges has emerged. This year has been about the need to restore services to pre-pandemic levels and renew our focus on diagnostics, timely access to treatment, and bringing down waiting lists for elective procedures.

As can be seen in this report, we have achieved a great deal. We have been able to eliminate 104-week waits, and as I write we have the next target of 78 weeks firmly in our sights. Our upward trajectory even continued during what was arguably the NHS's most challenging winter on record, with staff pulling together to not only keep urgent and emergency care services running safely, but to consistently deliver some of the fastest ambulance turnaround times in the region.

This report is not just about what we have done well though. It underlines our commitment to transparency and accountability, and the importance of learning not just from successes but from challenges too. This means that as well as charting the progress made across our three key areas of patient safety, clinical effectiveness and patient experience, we include here the steps taken to address areas for improvement from last year, and we identify where there is still work to be done.

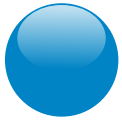
We are clear that the pursuit of quality never stops. We remain committed to promoting continuous learning, evidence-based practice, and patient-centred care. We have comprehensive governance systems and quality assurance processes in place, as well as robust feedback and involvement mechanisms to ensure we are responding to the needs of our patients and their families, and that their voices will be at the forefront as we develop and evolve our services in future.

I extend my sincere thanks to every individual who has contributed to the delivery of safe and high-quality care across our organisation this year. You have made a real impact on the lives of so many. Together, we will continue to drive positive change and deliver better health outcomes for the people of Walsall and Wolverhampton.

To the best of my knowledge, the information contained within this Quality Account is accurate.

Signed:

Professor David Loughton CBE, Chief Executive
May 2023

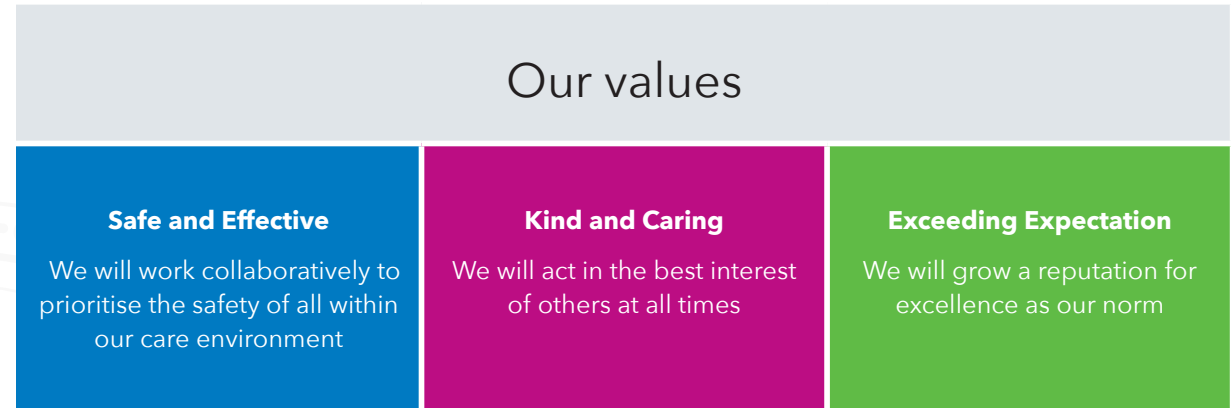


Vision and Values

‘Our vision is: “To deliver exceptional care together to improve the health and wellbeing of our communities”. Our vision has been updated to reflect the closer working of our organisation with local partners and to focus on our core purpose of improving the health and wellbeing of our communities. A vision is more than a few words – it reflects our aspirations and helps to guide our planning, support our decision making, prioritise our resources and attract new colleagues.

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Achieving our vision: Strategic objectives



Looking back 2022/23 Priorities for Improvement

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The chosen priorities supported several quality goals detailed in last year's quality strategy as well as three key indicators of quality:

Patient Safety

Having the right systems and staff in place to minimise the risk of harm to our patients and being open and honest and learning from mistakes if things do go wrong.

Clinical Effectiveness

Providing the highest quality care with world-class outcomes whilst also being efficient and cost effective.

Patient Experience

Meeting our patients' emotional needs as well as their physical needs.

Progress in achieving our quality priorities has been monitored by reporting to the relevant Quality Boards at the Trust.



Priority 1: Patient safety

Priority and why priority identified

PS 1: COVID-19 minimising impact

This priority supports the delivery of our Quality and Patient Safety strategy and builds on the work already undertaken to maintain best practice for the management of COVID-19 for inpatients, preventing the spread of infection and minimising the impact of COVID-19 to optimise service recovery to a pre-pandemic position.

Reduce indirect harm caused by COVID-19 by establishing systems to identify and monitor learning from related incidents.

What we said we would do

Minimise and manage outbreaks within national/regional guidance to maintain safety of staff and patients with minimal impact on service provision.

Aim to provide high quality, safe services to pre-COVID rates to meet national targets.

How did we do?

Looking back Infection Prevention 2022/23

This year has been extremely busy with the ongoing COVID-19 pandemic but also returning to pre-COVID business as usual. During this period the Infection Prevention team (IPT) has, however, been able to complete both reactive and proactive work.

The IPT has continued to work effectively with Wolverhampton Public Health to ensure COVID-19 guidance and all COVID, flu and norovirus outbreaks are managed in a timely manner, thus ensuring patient safety in care homes and other high-risk settings. A new contract has been agreed from April 2023.

In the acute Trust:

- Carbapenemase producing enterobacterales (CPE) colonisation has continued to increase with 53 cases
- Clostridioides difficile is over trajectory with 72 cases (14 over trajectory)
- 2 MRSA bacteraemia attributed to RWT
- Environmental controls continue to be a top priority, however not all areas have received a deep clean due to lack of decant facilities. All inpatient areas have, however, received an enhanced level of cleaning throughout
- The bed cleaning service has resumed, whereby empty beds are taken to an area and cleaned using steam and hydrogen peroxide vapour (HPV). A clean bed is delivered to the ward ready for a new patient
- The Intravenous Resource Team continues to deliver a high standard of line care with patients discharged on outpatient parenteral antibiotic therapy (OPAT)
- Surgical site infection surveillance (SSIS) data is shared with consultant surgeons via a monthly dashboard
- Device related bacteraemia (DRHAB) has increased. This is an internal trajectory of 48 and there were 58 identified
- Outbreak management included COVID-19 x 87, norovirus x 2, influenza x 2

Ward based education has been completed, including Clostridioides difficile awareness week, different wards each week, and back to basics.



Looking back COVID-19 2022/2023

The Trust continues to identify all COVID-19 healthcare associated infections (HCAIs) in line with national definitions and to undertake investigations as indicated by national guidance. Outbreaks continue to be managed according to national guidance, however there have been many variables which have impacted the number of outbreaks, such as visiting and the removal of all COVID-19 guidelines for the general public. Outbreaks are reported and escalated to ensure learning is identified and corrective actions taken.

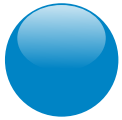
Several changes in guidance occurred throughout the year such as patients wearing face masks and a reduction in inpatient screening. Asymptomatic screening ceased and only patients who presented in the emergency department (ED), or in an inpatient setting with symptoms, were screened. All patients identified as clinically extremely vulnerable (CEV) or were admitted to intensive care or were being discharged to a care home were also screened for COVID-19.

Patients who had a positive result were isolated in a side room or nursed in a bay with other positive patients (cohort bay/ward).

All COVID-19 HCAI deaths are reviewed by an individual case analysis and structured judgement review (SJR) with a full root cause analysis (RCA) completed where indicated. Themes identified were ventilation of the ward environment and patient/staff compliance with face masks.

The Trust undertakes Duty of Candour in a sensitive manner and in line with national guidance in all cases where moderate or severe harm or death has been caused by omissions in care.





Priority and why priority identified

PS 2 - Reduce harm by assessing, recognising, and responding to minimise patient deterioration

This priority supports delivery of our quality strategic aim to deliver a safe and high-quality service and builds on the achievements of our 2021/22 quality and patient safety strategy priority to protect patients from unintended or unexpected harm.

What we said we would do

Maintain a continued focus on good governance processes for the deteriorating patient, including:

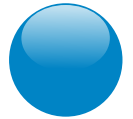
- Development of a dashboard for deteriorating patient and sepsis
- Critical care reviews and themes for learning and quality improvement
- Learning from mortality reviews in relation to the deteriorating patient
- Further collaboration and close working with resuscitation committee
- Achieve the CQUIN in relation to recognition and response to deterioration of patients.

How did we do?

Dashboard development is ongoing. With input from the Information Team, an “observations on time” dashboard was developed and implemented. The dashboard provides real time data that clinical areas can interrogate to evaluate performance and support improvement. There has been an incremental improvement in the compliance with “observations on time” which is a key safety metric. A similar approach will be used to develop other elements of the dashboard and we have plans to share it with Walsall Healthcare NHS Trust colleagues and work collaboratively on the deteriorating patient agenda.

The Trust is committed to delivering the Commissioning for Quality and Innovation (CQUIN) relating to deteriorating patients and unplanned admissions to the critical care unit. It measures the recording of the National Early Warning Score (NEWS2), escalation time and response time for unplanned critical care admissions. The CQUIN goal is 20-60% and the Trust has performed consistently well, above the national target (overall compliance was 83% for the last quarter of 2022/23). The associated audit has demonstrated an improvement in escalation but challenges with documentation of the response time. Feedback is provided to ward teams when delay in escalation/response is identified.

We have continued to contribute to the national cardiac arrest audit. An improvement has been noted in the “risk adjusted” parameters such as ROSC (Return of Spontaneous Circulation) >20 minutes and survival to hospital discharge. The overall 28-days in-hospital survival is similar to peer group and the national average. The Resuscitation Committee has set up a focus group to undertake further analysis of factors that impact on the risk-adjusted metrics and determine interventions to support improvement. Case ascertainment and data completion is also being explored and discussions are ongoing with the Information Technology Team to develop an electronic form to improve data capture post event. Unexpected deaths following cardiac arrest is now an additional criterion to identify any missed opportunities regarding prompt escalation or whether Do Not Attempt Cardiopulmonary Resuscitation (DNACPR) should have been in place.



Priority and why priority identified

PS 3 - Promote equality out of outcomes by routinely reporting user outcomes (reducing health inequalities)

This priority supports the delivery of the national/regional (Integrated Care System: ICS) agenda to focus on access and health equity for underserved communities and our local Quality and Patient Safety Strategy to promote equality of outcomes for all, including hard to reach groups.

What we said we would do

Ensure our current patient safety workstreams are dovetailed and support outcomes in line with health inequalities programme to maximise impact.

How did we do?

The Royal Wolverhampton NHS Trust has undertaken the following actions as part of the health inequalities agenda:

Governance and Education

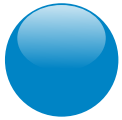
- Introduced a health inequalities steering group which has representation from a wide range of stakeholders internal and external to the organisation, including local authority, public health and One Wolverhampton
- Trust Board reports and development sessions
- Business case templates have a dedicated section which includes consideration of inequalities
- Equalities Impact Assessment (legal duty) now also includes consideration of other inequalities e.g., deprivation
- Successful bids for developing educational packages for the workforce to improve understanding of health inequalities within the population we serve.

Five national themes and our initial action plan

1. Inclusive services - breaking down data by deprivation and ethnicity
 - Maternity and early years data development and dashboards to steer focus
 - Equity audit of elective pathways and pilot work on DNAs
2. Mitigating against digital exclusion
 - Considering data protection concerns, equipment and data availability, and digital skills in access to information and services; monitoring uptake
3. Ensuring datasets are complete and timely
 - Meeting ethnicity completion target of 95%, flags for learning disability in place
4. Accelerating prevention programmes
 - Introduction of tobacco dependency service for inpatients, expansion of the Drug and Alcohol Liaison Team, primary care workstreams, recruitment of EDI midwife
5. Strengthening leadership and accountability
 - Board level buy-in, working towards distributed leadership through education and changing business-as-usual processes

Assessing Equity

- Analysis and qualitative data gathering to identify disparities, focusing on patients that "did not attend" (DNA), and a review of current processes focusing on a deep dive in high volume specialities in the first instance to establish the inequalities faced. An equitable recovery programme pilot is currently underway in the ophthalmology department to proactively contact patients with outpatient appointments to identify any barriers they may face to attending their appointments.
- Updating the patient access policy to ensure services are available to all patients and easily accessible.



Priority and why priority identified

PS 4 - We will aim to improve mental health care and treatment for all ages

PS 5 - We aim to review our services, working with our partners to deliver a flexible service to meet the needs of mental health patients

PS 6 - As a registered provider of mental health, we aim to adhere to the legislation within the Mental Health Act 1983 and to ensure all patients are treated in a person-centred way

PS 7 - We aim to support and deliver excellent care for some of our most vulnerable patients and their carers, including children and those living with a learning disability, mental health issues or dementia

PS 8 - We aim to deliver parity of esteem by having embedded mental health services and skills across the workforce

This priority supports the delivery of the national/regional (Integrated Care System: ICS) agenda to improve mental health services and services for people and our local quality and patient safety strategy to strengthen governance and care systems related to the care of those with mental ill health.

What we said we would do

Ensure the workforce is knowledgeable and skilled in meeting the needs of our mental health patients

Embed a multidisciplinary approach to supporting mental health patients

Deliver a mental health steering group that will enable a Trust-wide approach to reviewing mental health care standards and share experiences. The group will be a supportive forum that aims to improve mental health care and standards throughout the organisation

Work with partner agencies to support effective delivery of mental health care services that are delivered within the organisation

- Develop a mental health strategy
- Develop a process to support the Use of Force Act 2018 and improve governance processes for auditing mental health data

How did we do?

PS4 - The Trust has developed systems where incidents and complaints can now be systematically reviewed to allow the organisation to have oversight. Regular data is available to support clinical areas to access appropriate care and treatment and support patient care.

Systems and processes have been developed to support adherence to the Mental Health Act (MHA) and are able to support quality of care for patients who are detained under the Act, ensuring their patient rights are adhered to and they have access to independent mental health advocates when required.

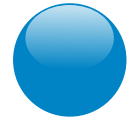
The Trust continues to work with partner organisations who support our patients on admission.

PS5 - The Trust liaises with partner organisations to agree pathways and services for our patients. The mental health team engages in transformational projects to develop the services available to patients whilst in the care of the organisation. The executive team is working with partner organisations to develop clear service standards.

PS6 - A process has been embedded where the Trust is aware of all mental health activity that takes place within the organisation. With this oversight, assurance has been gained that all patients have access to the correct legal process supporting MHA.

The Trust adheres to the Mental Health Act 1983 and Mental Health Code of Practice to support our patients who are detained to the organisation. MHA administrators are in post who support the process and education for the workforce.

Enhanced MHS training has been developed for the workforce to support their knowledge and understanding of the Act, to improve quality of care delivered to patients.



PS7 - Over the last year the mental health team has been able to learn and understand the services that are in place, working across the organisation to support all ages of mental health presentations. New working groups have begun to develop services to support areas for improvement, such as paediatrics, inpatient wards and for older adults who may be presenting with dementia.

Close working is taking place with the learning disability team to support sharing of information to enable a joint approach and support the quality of care patients receive. The Trust is working with our partner organisations to benchmark best practice and work in collaboration with regional workstreams that are taking place.

PS8 - The mental health team continues to advocate for parity of esteem and is working with our partner organisations to fully embed this practice, understanding that there are challenges to ensure parity of esteem from the front door throughout the patient journey. Therefore, work continues in collaboration to ensure pathways are robust and services are delivered to meet the complex needs of the patients that attend the Trust.

It is envisaged that with the completion of the ongoing workstreams, regional work and collaboration, we will achieve parity of esteem in the future.





Priority 2: Clinical Effectiveness

Priority and why priority identified

Nursing Workforce

CE 1 - To ensure we improve and continue to have an appropriate workforce to support clinical effectiveness, patient safety and a positive patient experience

What we said we would do

- Continue our recruitment programme, using our lead recruiter clinical fellowship programme to attract and onboard international recruits
 - Continue to increase placement opportunities for student nurses, supporting our local universities' ability to educate more nursing students
 - Improve the work/life balance of our nursing staff by offering flexible working, which will improve the organisation's attractiveness to new staff and retention of current staff
 - Continue to provide mechanisms to allow for personal and professional growth, whether from clinical support to nursing associate, nursing associate to registered nurse or registered nurse to advanced practice
- Seek to improve opportunities for all by supporting local recruitment programmes in partnership with local government, charities, and associations to address local inequalities that affect employment within our communities
- Complete the implementation of safecare and safe staffing policy to fully realise the benefits of a responsive, acuity-led staffing allocation and the governance of red flag alerts
- Improve the systematic review of staffing in the organisation using the new Safer Nursing Care Tool (SNCT) provided for both emergency departments and community in late 2021 and early 2022.

How did we do?

- Continued our recruitment programme, utilising our lead recruiter clinical fellowship programme to attract and onboard international recruits
- Continued to increase placement opportunities for student nurses, supporting our local universities ability to educate more nursing students
- Improved the work/life balance of our nursing staff by offering flexible working, which will improve the organisations attractiveness to new staff and retention of current staff. We have also relaunched the internal transfer programme with good results
- Continued to provide mechanisms to allow for personal and professional growth, whether from clinical support to nursing associate, nursing associate to registered nurse or registered nurse to advanced practice. Introduction of STAY events for registered staff and nuanced events for unregistered staff
- We improve opportunities for all by supporting local recruitment programmes in partnership with local government, charities, and associations to address local inequalities that affect employment within our communities. Success with recruiting through the Prince's Trust "Get Into" programme for 18-30-year-olds
- Completed the implementation of safecare and safe staffing policy to fully realise the benefits of a responsive, acuity-led staffing allocation and the governance of red flag alerts and report daily
- Improved the systematic review of staffing in the organisation using the new Safer Nursing Care Tool (SNCT). Completed an external review from NHSE/I to ensure we are using the SNCT appropriately, which we are fully compliant with. We have also intorducted robust training for staff around using the tool to ensure accurate data capture.



Priority and why priority identified

Allied health professionals

CE 1 - To ensure we improve and continue to have an appropriate workforce to support clinical effectiveness, patient safety and a positive patient experience

What we said we would do

- Continue to build upon our Health Education England-funded workforce programmes, supporting AHPs to return to practice
- Progress international recruitment into AHP posts through RWT's award-winning clinical fellowship programme
- Increase attraction, reduce attrition, and improve retention of AHPs and the support workforce
- Enhance our resources to increase the number of AHPs undertaking apprenticeships at all levels
- Develop the AHP support workforce
- Continue to work with universities to offer an increased number of placements and attract students as our future workforce
- Focus on developing new roles and career progression opportunities for our existing AHP workforce
- Ensure provision of attractive development programmes
- Continue to strengthen our governance arrangements using our oversight reports to the Chief Nurse
- Expand our apprenticeship offer to the diverse population to widen potential future employment opportunities within healthcare for young people in our local communities
- Continue to build a personalised plan to deliver more flexible working opportunities in all our roles and deliver on the promises made in the NHS People Plan.

How did we do?

The Chief Nurse has oversight for AHP recruitment and retention through monthly reports.

Working with colleagues across the Black Country Integrated Care System (ICS), we promoted return to practice (RtP) across the ICS. The campaign resulted in 481 views on the RWT RtP website. This represents an increase in views of approximately 250% compared to previous months. International recruitment (IR) is ongoing - through the NHSE ICS programme, for which RWT is the lead recruiter. Diagnostic radiography has done particularly well, with 13 radiographers appointed to date. Two offers have been made for internationally recruited podiatrists.

Our first four operating department practitioner (ODP) apprentices became registered ODPs in 2022, with a further six theatre assistant practitioners starting their Level 6 apprenticeship in 2022. Within the Physiotherapy and Occupational Therapy (OT) Department there are currently three physiotherapy and four OT apprentices, with a further five apprentices due to start in 2023. New apprenticeship opportunities for 2023 include radiography, dietetics and speech and language therapy. We are also exploring level 3 and level 5 apprenticeships for our AHP support workforce as well as level 7 opportunities for those already educated to level 6.

We are hopeful that links developed with several universities during our clinical placement expansion programme 2021/22 project will lead to increased retention of local students recruited as new graduates. To support retention, during 2022 we saw the launch of our new ICS AHP preceptorship programme. A positive preceptorship experience is reported to result in newly registered graduates and international recruits having increased confidence and feeling valued by their employer. This, in turn, is linked to improved recruitment and retention. Other initiatives implemented to improve retention include "stay and grow" conversations, the updated AHP career map and supporting flexible working.

Temporary staffing arrangements are in place for vacancies where necessary to ensure services are appropriately staffed and targeted recruitment continues to proactively recruit into hard to fill posts. AHP vacancy levels overall are now meeting the Trust target over the last nine months, the first time since April 2020.



Looking back 2022/23

Priority and why priority identified

Medical workforce - Consultants

CE 1 - To ensure we improve and continue to have an appropriate workforce to support clinical effectiveness, patient safety and a positive patient experience

What we said we would do

- Continue to develop internally trained senior medical staff from our fellowship programme
- Aim to strengthen links with neighbouring organisations where the national consultant resource is limited
- Develop a pathway for long term locum consultants to be employed and supported to progress through CESR to a substantive appointment

How did we do?

The Clinical Fellowship Programme (CFP) CESR Faculty is an initiative that supports doctors across The Royal Wolverhampton, Walsall Healthcare NHS Trust and Black Country Healthcare NHS Foundation Trust.

The Certificate of Eligibility Specialist Register (CESR) Programme is the alternative training pathway for doctors to join the GMCs Specialist Register to become UK consultants.

CESR is a lengthy process and requires a high level of commitment from the doctor, combined with support from the CESR faculty and a doctor's respective directorate to progress toward a successful application with the GMC. The Trust currently has:

16 CESR successes since 2018

44 currently committed to the pathway

18 anticipated submissions within the next 12 months

Developed CESR fellow posts, linked to "hard to fill" consultant vacancies with a view to attracting doctors from within the UK

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Priority and why priority identified

Medical workforce - Junior medical staff / fellowship

CE 1 - To ensure we improve and continue to have an appropriate workforce to support clinical effectiveness, patient safety and a positive patient experience

What we said we would do

- Ongoing development and expansion of the clinical fellowship programme
- Embrace and adopt required changes to training structure and supervision requirements
- Explore options for digital fellowship programmes in collaboration with external stakeholders

How did we do?

Clinical fellowship education and enhanced support Services

- Implementation of a three-tier weekly teaching programme - aimed to support all levels of fellows.
- SIMS training sessions
- Educational support meetings during initial six months into tenure (running parallel to educational supervision)
- Group supervision sessions with trained educational supervisor for initial six months into tenure
- Peer-led enhanced support services sessions for portfolio, IT training and on-call induction training
- Peer-led pastoral programme - leads for academic, socio-cultural and early support aiding our international fellows with an easier transition into working in the NHS and adjusting to life in the UK

Priority and why priority identified

Medical workforce - Medical students

CE 1 - To ensure we improve and continue to have an appropriate workforce to support clinical effectiveness, patient safety and a positive patient experience

What we said we would do

- Consolidate Aston Medical School students into the Trust and continue to recognise this will be an important future source of junior and senior medical staff
- Continue to provide high quality training for University of Birmingham medical student

How did we do?

- Aston Medical School (AMS) students have been well integrated into the organisation. The AMS inception cohort (intake 2018) will graduate this academic year, with every student having the entirety of their medical final clinical examination at RWT
- A quality visit from the GMC assessing AMS and their provision for OSCEs (Objective Structured Clinical Examinations) was excellent. The successful partnership between RWT and AMS resulted in an "impressive and well-organised" OSCE. (Source: General Medical Council team, 7 March 2023).

Quality metrics for University of Birmingham Medical School students remains high with the latest quality visit in September 2022. The feedback from the visit stated: "throughout the visit it was evident to the panel that the Trust has a genuine commitment to education. This was equally reflected within the student feedback whereby students perceived the RWT to be an excellent placement."



Priority and why priority identified

CE 2 - To continue with our multi-professional Clinical Services Framework (CSF) to further enhance our ability to work as integrated teams and support our patient needs

What we said we would do

Continue to implement the Clinical Services Framework (CSF) and the elements outlined for 2022 under:

- Right workforce
- Excellence in care
- Cultural and organisational structure
- Communication
- Education
- Research

How did we do?

During 2022/23, the Trust continued to progress the priorities and milestones outlined in the Clinical System Framework for Nurses, Midwives, Health Visitors and Allied Health Professionals (AHPs), which was launched during 2021/22 as Version 2. The Framework consisted of six pillars: Right Workforce, Excellent Care, Culture and Organisational Structure, Communication, Education, and Research and Innovation. In total, there were 36 specific work-streams and 222 associated objectives for the two-year period. Progress with delivering the agreed objectives was reported on a three-monthly basis and shared with senior leaders via the key forums, and with Trust Board via the chief nursing officer report.

From the 222 set objectives, 157 were achieved, 73 were not achieved and two objectives were not reported against.

Overall, there were many positive achievements, despite the extreme operational pressure caused by the COVID-19 pandemic. Examples include:

- Recruitment/training of professional nurse advocates (PNAs). A total of 49 staff are now accredited as PNAs within the Trust
- Recruitment of smoking cessation specialist midwife to support smoking cessation
- Nurses, midwives, health visitors and AHPs published 113 peer reviewed articles in 2022, as opposed to 39 in 2021, overperforming on the CSF objective set for both years
- The Care to Share magazine continued to be published to celebrate achievements as well as being a helpful communication tool
- 100% Care Certification was achieved for healthcare support workers (HCSWs)
- Progress with internal transfer process was achieved with a CNO fellow appointed to progress the workstream in 2022
- International nurse retention was positive and for 85 staff recruited during 2020, 85-90% remained at the Trust
- The 30, 60 and 90-day conversations were introduced to proactively monitor staff wellbeing and job satisfaction
- Success with the apprenticeship programme was achieved through proactive community scoping and collaborative working with the Prince's Trust and Health Education England
- The target of expanding AHP representation on Trust committees was met
- Co-production, clinician and patient workshops commenced and are now embedded

In terms of the objectives that were not achieved, this was due to a variety of reasons. For example, some of the national reporting mechanisms had changed which meant that some metrics were no longer collected or relevant. In addition, the extreme operational pressures caused by the COVID-19 pandemic and the need for re-prioritisation of key activities had negatively impacted our ability to achieve all the objectives.

A new framework for nurses, midwives, health visitors and AHPs, renamed as the "Quality Framework", was launched in April 2023, following extensive consultation across both the Royal Wolverhampton NHS Trust and Walsall Healthcare NHS Trust. Some of the objectives not achieved during 2022/23 are included in this version. The Framework outlines key areas of focus for the next two years and includes focus on the same pillars as outlined in previous iterations, but now includes five separate plans for the following services: paediatrics, maternity, acute adult, allied health professionals and community. Quarterly progress updates will be provided via the chief nursing officer/director of nursing reports.



Priority 3: Patient Experience

Priority and why priority identified

PE 1 - To maintain and improve patient engagement and to continue to place patient engagement and involvement at the heart of decision making, driving forward improvements in delivery of care

What we said we would do

With our colleagues at Walsall Healthcare NHS Trust (WHT), we will publish an enabling framework for 2022-2025. This will reinforce our collaborative working across both trusts.

How did we do?

A variety of workstreams have been ongoing throughout the year to improve patient engagement and involvement and ensure this is at the heart of decision making.

We have an active Council of Members (patient participation group) where meetings are held bi-monthly. Active group members have been involved in a variety of projects and initiatives including assessment of standards against the "15 Steps" challenge and "Observe and Act" initiatives. This group has been rebranded and the members are now called patient involvement partners (PIPs), which gives more clarity to the role. The terms of reference were also agreed, plus new branding which will be going live in early 2023.

The enabling strategy has been written following consultation with the patient groups and is currently being ratified.

The Trust has trialled a feedback initiative called "mystery patients" in our paediatric areas. The model uses QR codes from posters displayed in clinical areas to collect anonymous feedback on the services accessed. In January 2023, our PIPs helped co-design the RWT model of the initiative to prepare for wider roll out. The PIPs group chose to call the RWT model "Feedback Friend" and discussed the logo and what information needs to go onto the poster and be on the online form which is accessed by the patient. The end co-designed result was due to be rolled out in a phased approach across further clinical areas in RWT from April 2023.

RWT has been working on co-designing the ward welcome information boards within this reporting period, with final designs expected to be ready to go live in April 2023. We have worked with the following groups to identify what information patients and carers would like to see on the welcome boards:

- Patient involvement partners (for adult wards)
- Service users with learning disability in a specific focus group for both adult and paediatric wards
- A local primary school for the paediatric ward

The Patient Experience Team has met with the LD nursing team to begin scoping methods of feedback for patients with a learning disability. A video will be put together in the new financial year.

Patient involvement in quality improvement

The first task and finish group meeting was held in this reporting period, to develop a framework within RWT and WHT of involving patients and carers within all quality improvement workstreams.

15 Steps patient observation initiative

During this reporting period PIPs have been involved with supporting 15 Steps assessments in various clinical locations.



Priority and why priority identified
PE 2 - To continue to improve complaints responses to patients and ensure learning is identified and areas are provided with e-learning
What we said we would do
Embed the PHSO Complaints Standards and, with our colleagues at WHT, continue to develop and implement the standards including e-learning training modules and tracking progress against each trust's self-assessment.
How did we do?
<p>The Trust has implemented the Parliamentary Health Service Ombudsman (PHSO) Complaint Standards for complaint handling and became an early adopter of the initiative. The early implementation was successful, and this initiative has now been suggested to be used nationally by the PHSO. A self-assessment was undertaken as part of the requirements for the PHSO for being an early adopter.</p> <p>A module has been written jointly between both The Royal Wolverhampton NHS Trust and Walsall Healthcare NHS Trust, and will be available shortly for wider access. This incorporates the principles of the PHSO standards, however, local training has been delivered for bespoke groups as and when required. There is an ambition to make this module mandatory for all those whose responsibilities are to deal with formal complaints.</p> <p>The PHSO standards include a focus on the customer care element, and a project has been implemented over the last 12 months focusing on de-escalation of complaints resulting from aggression between the public and staff. This was piloted within ED, mainly for receptionists, however has been widened out to clinical staff. The ambition for the forthcoming year is to deliver this training to other directorates.</p> <p>We have undertaken assessments of our complaint handling periodically throughout the year, with an independent panel. The current results are favourable about our compliance with processes.</p>

Priority and why priority identified
PE 3 - To build on the success of volunteer services
What we said we would do
<p>Identify strategic priorities for volunteering opportunities aligned with strategic priorities of the Trust:</p> <ul style="list-style-type: none"> • Increase recruitment of volunteers • Continue to explore career pathways for volunteers within the Trust and evidence case studies/ good practice • Expand volunteer opportunities based within Trust community services



How did we do?

We are still trying to align volunteer roles with the strategic Trust priorities. During the last year, many new roles were requested of volunteers, including in the endoscopy waiting room, ED and ambulance receiving centre, discharge lounge and surgery wards, which we have been able to fulfil thanks to our adaptable approach with use of an app for volunteer rostering. To plan effectively for winter pressures 2023, we will be recruiting again in late summer, and will meet with workforce leads to understand where volunteers could most effectively support in clinical areas.

The recruitment of volunteers has increased; we continue to hold quarterly recruitment projects with a minimum target of 50, and in addition we attend the trust-wide recruitment events and a wide range of community engagement events. We also spend quality time on volunteer retention initiatives, to hold the numbers of volunteers in place for longer.

We continue to support volunteers with career explorations in the NHS, and to build upon their own skill development and to pursue job applications within the Trust if this is their choice. We have signed a partnership agreement with NHS Cadets, which is managed by NHSE and St John Ambulance, and trains and educates young people on NHS career opportunities alongside a volunteer placement. Since forming the partnership, we have supported nine young people through this route. We regularly collect case studies for use in social media and reports, and a case study of a volunteer who gained a bank HCA position has been featured in two national NHSE campaigns promoting HCA careers. The deputy head of patient experience with portfolio responsibility for volunteering also led a monthly NHS volunteer managers forum on recruitment of the clinical volunteers for Helpforce, which was live streamed on LinkedIn.

Finally, we will explore volunteer opportunities within the community fully in 2023, as we have been awarded funding by NHS Charities Together, for a two year volunteer programme aiming to ease social isolation.

Priority and why priority identified

PE 4 - Patient access waiting times: A focus on waiting times to improve 62-day cancer performance, a reduction in long waiting patients (+78 weeks) and elimination of 104 week waits

What we said we would do

- Focus on cancer capacity and pathway times. This year has seen a sharp increase in referrals, however, our 2ww performance is improving which will in turn help the 62-day pathway times. Work is ongoing to improve diagnostic waiting times with the inclusion of mobile units to increase capacity
- We recognise the need for capacity to be increased over and above pre-COVID numbers to reduce waiting times. We continue to use virtual clinics where appropriate to ensure maximum capacity is available
- We will continue to work collaboratively with other local trusts to offer and use mutual aid where appropriate to ensure the best outcomes for patients.

How did we do?

We have continued to prioritise the treatment of patients on a cancer pathway. There was a 22.7% increase in referrals in 2022/23 compared to pre-COVID which has impacted on all stages of the cancer pathway. Additional diagnostic capacity is in place to improve timeliness of diagnostics and mutual aid has been sought to increase treatment capacity further.

The Trust has significantly reduced the number of patients waiting over 78 weeks, reducing the number of breaches to 85 at the end of March. Industrial action in March (which continued into 2023/24) impacted on the improvements the Trust could make beyond this.

The Trust eliminated all waits over 104 weeks.

Looking forward 2023/24

Priorities for improvement:

How we chose our priorities

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Each year the Trust is required to identify its quality priorities. We consulted on both the quality strategy and annual quality priorities. The draft priorities were shared with commissioners, Healthwatch, our governors, the Trust Management Committee, the executive teams within the divisions, and directorate management teams. The final priorities for 2023/24 were agreed by the Trust Board.

The chosen priorities support several quality goals detailed in our quality strategy as well as three key indicators of quality:

Patient Safety

Having the right systems and staff in place to minimise the risk of harm to our patients and being open and honest and learning from mistakes if things do go wrong.

Clinical Effectiveness

Providing the highest quality care with world-class outcomes whilst also being efficient and cost effective.

Patient Experience

Meeting our patients' emotional needs as well as their physical needs.

Progress in achieving our quality priorities will be monitored by reporting to the relevant quality boards at the Trust.



The priorities detailed below have been identified and agreed in the Quality and Safety Enabling Strategy and the Patient Experience Enabling Strategy. These are the first joint strategies for The Royal Wolverhampton NHS Trust (RWT) and Walsall Healthcare NHS Trust (WHT). The strategies define in detail how we will strive to excel in delivery of care, which is one of the four strategic aims of the joint Trust strategy. These can be located at royalwolverhampton.nhs.uk/about-us/publications-and-documents/

Our key priority areas have been agreed based on information from various local, regional and national sources, including recent engagement with our staff, patients, partners, and the communities we serve.

The priorities identified below are specifically drawn from both the above strategies.

The priorities are captured in the overarching themes of the Quality & Safety Enabling Strategy.

Our people

- Priority area - The right workforce with the right skills, in the right place at the right time

Embed a culture of learning and continuous improvement at all levels of the organisation

- Priority area - Quality improvement
- Priority area - Patient safety
- Priority area - Patient involvement

Prioritise the treatment of cancer patients, focusing on improving outcomes for those diagnosed with the disease

- Priority area - Cancer treatment

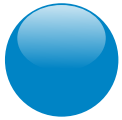
Deliver safe and responsive urgent and emergency care in the community and in hospital

- Priority area - Urgent and emergency care and patient flow

Deliver the priorities of the National Elective Care Strategy

- Priority area - National Elective Care Strategy





Priority 1 - Patient Safety

Embed a culture of learning and continuous improvement at all levels of the organisation.

Priority area - Patient safety

Key actions we will take:

- Transition to the Patient Safety Incident Response Framework (PSIRF)
- Transition to Learn from Patient Safety Events (LfPSE)
- Increase uptake of Level 2 syllabus training

The aim for 2023/24

- Transition to PSIRF achieved by the national deadline
- 100% of incidents uploaded to LfPSE by the national deadline

Deliver safe and responsive urgent and emergency care in the community and in hospital.

Priority area - Urgent and emergency care and patient flow

Key actions we will take:

- Working with partners from across the system, we will support the flow of patients through UEC, by:
 - expanding and maintaining the use of same day emergency care (SDEC) services to avoid unnecessary hospital stays
 - expanding virtual wards, allowing people to be safely monitored from the comfort of their own homes
 - working with partners to speed up discharge from hospital and reduce the number of patients without criteria to reside

The aim for 2023/24

- Year on year improvement in the percentage of patients seen within four hours in A&E
- Reduce adult general and acute bed occupancy to 92%
- Consistently meet the 70% two-hour urgent community response time

Embed a culture of learning and continuous improvement at all levels of the organisation.

Priority area - Quality improvement

Key actions we will take:

- Produce a gap analysis on how both trusts (RWT/WHT) rank against the four components of a quality management system (quality planning, quality control, quality improvement and quality assurance), and review how we triangulate data to understand priorities
- All members of divisional and care group/directorate leadership teams to attend one day quality service improvement and redesign fundamentals (sessions scheduled from January 2023)
- Year-on-year roll-out plan for QI huddle boards across both trusts to targeted areas e.g., low evidence of improvement work, non-clinical areas

The aim for 2023/24

- Completed gap analysis by end of 2023/24
- Increase in the number of staff trained following triumvirate training
- Introduction of 10 QI huddle boards per site/annum



Priority 2 - Clinical Effectiveness

<p>The right workforce with the right skills, in the right place at the right time</p> <p>Priority area - Our people</p>	<p>Key actions we will take:</p> <ul style="list-style-type: none"> Recruit and retain staff using targeted interventions for different career stages Improve retention using bundles of recommended high impact actions Develop and deliver the workforce required to deliver multidisciplinary care closer to home, including supporting the rollout of virtual wards and discharge to assess models <p>The aim for 2023/24</p> <ul style="list-style-type: none"> To improve staff turnover by the end of 2023/24
<p>Prioritise the treatment of cancer patients, focusing on improving outcomes for those diagnosed with the disease</p> <p>Priority area - Cancer treatment</p>	<p>Key actions we will take:</p> <ul style="list-style-type: none"> Maintain focus on operational performance, prioritising capacity for cancer patients to support the reduction in patients waiting over 62 days Increase and prioritise diagnostic and treatment capacity for suspected cancer, including prioritising new community diagnostic centre capacity Implement priority pathway changes for lower gastrointestinal (GI), skin, and prostate cancer <p>The aim for 2023/24</p> <ul style="list-style-type: none"> Reduction in the number of patients waiting more than 62 days for treatment, and meeting the cancer faster diagnosis standard by March 2024 75% of patients who have been urgently referred by their GP for suspected cancer are diagnosed, or have cancer ruled out, within 28 days
<p>Deliver the priorities of the National Elective Care Strategy</p> <p>Priority area - National Elective Care Strategy</p>	<p>Key actions we will take.</p> <ul style="list-style-type: none"> Deliver an increase in capacity through the community diagnostic centre and theatre expansion programme Transform the delivery of outpatient services with the aim of avoiding unnecessary travel and stress for patients Increase productivity using the GIRFT (Getting it Right First Time) programme and improving theatre productivity <p>The aim for 2023/24</p> <ul style="list-style-type: none"> Eliminate waits of over 65 weeks by the end of 2023/24 Meet the 85% theatre utilisation expectation
<p>Review of GIRFTⁱ and Model health system dataⁱⁱ</p>	<p>Key actions we will take.</p> <ul style="list-style-type: none"> Review model health system and Getting It Right First Time (GIRFT) data to guide relevant aspects of activity, quality, and safety

i Getting It Right First Time (GIRFT) is a national programme designed to improve the treatment and care of patients through in-depth review of services, benchmarking, and presenting a data-driven evidence base to support change.

ii The Model Health System is a data-driven improvement tool that enables NHS health systems and trusts to benchmark quality and productivity.



Priority 3 - Patient Experience

Embed a culture of learning and continuous improvement at all levels of the organisation.

Priority area - Patient involvement

Key actions we will take:

- The key priorities are outlined within the joint Patient Experience Enabling Strategy (2022-2025). These include:

Pillar one - Involvement

- We will involve patients and families in decisions about their treatment, care, and discharge plans.

Pillar two - Engagement

- We will develop our Patient Partner programme and use patient input to inform service change and improvements across the organisation

Pillar three - Experience

- We will support our staff to develop a culture of learning to improve care and experience for every patient.

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Within the Quality and Safety Enabling Strategy there are also several priority areas identified under the overarching theme of "fundamentals", which are based on internal and external priorities. The Trust will also be expected to deliver on the specific objectives linked to the strategy under this section. [INSERT LINK TO STRATEGY]

Fundamentals - based on internal and external priorities:

- Priority Area - Prevention and management of patient deterioration
- Priority Area - Timely sepsis recognition and treatment
- Priority Area - Medicines management
- Priority Area - Adult and children safeguarding
- Priority Area - Infection prevention and control
- Priority Area - Eat, Drink, Dress, Move to Improve
- Priority Area - Patient discharge
- Priority Area - Maternity and neonates
- Priority Area - Mental health
- Priority Area - Digitalisation

The Quality and Safety Enabling Strategy also includes the following priority area, which is part of the "Care" strategic aim of the Trust Strategy:

Deliver financial sustainability by focusing investment on the areas that will have the biggest impact on our communities and populations.

- Priority Area - Financial sustainability

This will focus on ensuring that we best use the finite resources available to us, which include (but are not limited to) people, physical capacity and finances, as well as maximising opportunities offered through collaborative working between RWT and WHT.

Statements of assurance from the Board: Mandatory quality statements



During the period April 2022 to March 2023, 60 national clinical audits and seven national confidential enquiries covered relevant health services that The Royal Wolverhampton NHS Trust provides.

During that period The Royal Wolverhampton NHS Trust participated in 93% of the national clinical audits and 100% of the national confidential enquiries in which it was eligible to participate.

The national clinical audits and national confidential enquiries that The Royal Wolverhampton NHS Trust was eligible to participate in during April 2022 to March 2023 are listed in Tables 1 and 2. The tables also note those audits and enquiries in which The Royal Wolverhampton NHS Trust participated, and for which data collection was completed during April 2022 to March 2023. The entries include the number of cases submitted to each audit or enquiry as a percentage of the number of registered cases required by the terms of that audit or enquiry.

The reports of 22 national clinical audits were reviewed by the provider in April 2022 to March 2023 and the actions that The Royal Wolverhampton NHS Trust intends to take to improve the quality of healthcare provided are detailed in Table 3.

The reports of 117 local clinical audits were reviewed by The Royal Wolverhampton NHS Trust during April 2022 to March 2023. Of these, 76 demonstrated areas where actions could be taken to improve the quality of healthcare. Details are at Appendix 1.



Statements of Assurance

National programme name	Work stream / Topic name	Participating 22/23	Data collection completed during period	% Submission rate / comments
Breast and Cosmetic Implant Registry	-	Yes	Yes	100%
Case Mix Programme (CMP)	-	Yes	Yes	-
Elective Surgery (National PROMs Programme)	-	Yes	Yes	-
Emergency Medicine QIPs	Care of Older People (COP)	Yes	Yes	100%
Emergency Medicine QIPs	Mental Health self harm	No	-	-
Emergency Medicine QIPs	Pain in Children	Yes	Yes	100%
Epilepsy 12 - National Audit of Seizures and Epilepsies for Children and Young People	Epilepsy12 has separate workstreams/data collection for: Clinical Audit, Organisational Audit	Yes	Yes	-
Falls and Fragility Fracture Audit Programme (FFFAP)	National Audit of Inpatient Falls	Yes	Yes	-
Falls and Fragility Fracture Audit Programme (FFFAP)	National Hip Fracture Database	Yes	Yes	100%
Falls and Fragility Fracture Audit Programme (FFFAP)	Fracture Liaison Service Database (FLS-DB)	Yes	Yes	100%
Gastro-intestinal Cancer Audit Programme (GICAP)	National Bowel Cancer Audit	Yes	-	No minimum dataset
Gastro-intestinal Cancer Audit Programme (GICAP)	National Oesophago-Gastric Cancer Audit (NOGCA)	Yes	-	No minimum dataset
Inflammatory Bowel Disease Audit	-	Yes	Yes	100%
LeDeR - learning from lives and deaths of people with a learning disability and autistic people	-	Yes	-	-
Maternal, Newborn and Infant Clinical Outcome Review Programme	Maternal mortality surveillance and confidential enquiry (confidential enquiry includes morbidity data)	Yes	Yes	-



National programme name	Work stream / Topic name	Participating 22/23	Data collection completed during period	% Submission rate / comments
Maternal, Newborn and Infant Clinical Outcome Review Programme	Perinatal confidential enquiries	Yes	Yes	-
Maternal, Newborn and Infant Clinical Outcome Review Programme	Perinatal mortality surveillance	Yes	Yes	-
Muscle Invasive Bladder Cancer at Transurethral REsection of Bladder Audit (MITRE)	Muscle Invasive Bladder Cancer at Transurethral REsection of Bladder Audit (MITRE)	Yes	Yes	-
National Adult Diabetes Audit (NDA)	National Diabetes Foot Care Audit	Yes	Data collection still in progress	-
National Adult Diabetes Audit (NDA)	National Diabetes Inpatient Safety Audit (NDISA)	Yes	-	-
National Adult Diabetes Audit (NDA)	National Core Diabetes Audit	Yes	Data collection still in progress	TBC
National Adult Diabetes Audit (NDA)	National Diabetes in Pregnancy Audit	Yes	Yes	-
National Asthma and COPD Audit Programme (NACAP)	Adult Asthma Secondary Care	Yes	Data collection still in progress	-
National Asthma and COPD Audit Programme (NACAP)	Chronic Obstructive Pulmonary Disease Secondary Care	Yes	Data collection still in progress	-
National Asthma and COPD Audit Programme (NACAP)	Paediatric Asthma Secondary Care	Yes	Yes	-
National Asthma and COPD Audit Programme (NACAP)	Pulmonary Rehabilitation Organisational and Clinical Audit	Yes	Yes	-
National Audit of Breast Cancer in Older Patients	-	Yes	-	-
National Audit of Cardiac Rehabilitation	-	Yes	Data collection still in progress	-
National Audit of Cardiovascular Disease Prevention Primary care	-	Yes	-	Data automatically extracted from GP records
National Audit of Care at the End of Life (NACEL)	-	Yes	Yes	-



Statements of Assurance

National programme name	Work stream / Topic name	Participating 22/23	Data collection completed during period	% Submission rate / comments
National Audit of Dementia	Care in general hospitals	Yes	Yes	100%
National Cardiac Arrest Audit (NCAA)	-	Yes	Yes	-
National Cardiac Audit Programme (NCAP)	Myocardial Ischaemia National Audit Project (MINAP)	Yes	Data collection still in progress	-
National Cardiac Audit Programme (NCAP)	National Adult Cardiac Surgery Audit	Yes	Data collection still in progress	-
National Cardiac Audit Programme (NCAP)	National Audit of Cardiac Rhythm Management (CRM)	Yes	Data collection still in progress	-
National Cardiac Audit Programme (NCAP)	National Audit of Percutaneous Coronary Interventions (PCI) (Coronary Angioplasty)	Yes	Data collection still in progress	-
National Cardiac Audit Programme (NCAP)	National Congenital Heart Disease Audit (NCHDA)	Yes	Data collection still in progress	-
National Cardiac Audit Programme (NCAP)	National Heart Failure Audit	Yes	Data collection still in progress	-
National Child Mortality Database (NCMD)	-	Yes	Yes	-
National Early Inflammatory Arthritis Audit	-	Yes	Yes	100%
National Emergency Laparotomy Audit (NELA)	-	Yes	Yes	100%
National Joint Registry	-	Yes	Yes	100%
National Lung Cancer Audit	-	Yes	Data collection still in progress	-
National Maternity and Perinatal Audit (NMPA)	-	Yes	Yes	-
National Neonatal Audit Programme (NNAP)	-	Yes	Yes	-
National Ophthalmology Database Audit (NOD)	Adult Cataract Surgery Audit	No	-	-
National Paediatric Diabetes Audit	-	Yes	Yes	100%



National programme name	Work stream / Topic name	Participating 22/23	Data collection completed during period	% Submission rate / comments
National Perinatal Mortality Review Tool	-	Yes	Yes	-
National Prostate Cancer Audit (NPCA)	-	Yes	Yes	-
Perioperative Quality Improvement Programme (PQIP)	-	Yes	-	-
Renal Audits	National Acute Kidney Injury Audit	Yes	Yes	100%
Renal Audits	UK Renal Registry Chronic Kidney Disease Audit	Yes	Yes	100%
Respiratory Audits	Adult Respiratory Support Audit	No	-	-
Respiratory Audits	Smoking Cessation Audit- Maternity and Mental Health Services	No	-	-
Sentinel Stroke National Audit Programme (SSNAP)	-	Yes	Data collection still in progress	-
Serious Hazards of Transfusion (SHOT): UK National haemovigilance scheme	-	Yes	Yes	?
Society for Acute Medicine Benchmarking Audit (SAMBA)	-	Yes	Yes	100%
Trauma Audit & Research Network (TARN)	-	Yes	Yes	100%
UK Cystic Fibrosis Registry	-	Yes	Yes	100%
UK Parkinson's Audit	-	Yes	Yes	-



Statements of Assurance

National programme name	Work stream / Topic name	Participating 22/23	Data collection completed during period	% Submission rate / comments
Child Health Clinical Outcome Review Programme	Testicular torsion	Yes	Data collection still in progress	-
	Transition from child to adult health services	Yes	Yes	100%
Medical and Surgical Clinical Outcome Review Programme	Community acquired pneumonia	Yes	Yes	100%
	Crohn's disease	Yes	Yes	100%
	End of Life Care	Yes	Data collection still in progress	-
	Endometriosis	Yes	Data collection still in progress	-
	Epilepsy Study	Yes	-	-

Based on information available at time of publication.



National Audit Title	Actions to be taken by RWT
National Cardiac Rehabilitation Audit 2021/22 (2022/23)	Fully compliant - no local actions.
Audit on Device Complications 2022/2023	<p>No local actions - consistent growth of device implantations (except during the COVID period in line with national and international trends). RWT complications rates are lower compared to other centres in Europe.</p> <p>There was no significant perforation or pericardial effusion or tamponade. There was no fatality related to the procedure</p>
National Cardiac Audit Programme (NCAP) 2021/22 data (2021/22)	Cardiac surgical mortality data is fully compliant with national standards with no identified local actions.
National Thoracic Surgery Audit (2021/22 DATA) 2021/22	No local actions - statistics for RWT continue to identify us as one of the top cardiac surgical centres for thoracic surgery in terms of measured outcomes.
National Emergency Laparotomy Audit (relates to 2020/21 submission of data). 2022/23	Consider direct admission to critical care for high-risk patients and promote multidisciplinary decision making.
National audit - Use of Negative pressure dressing in breast surgery (17/18)	This was a national study rather than a clinical audit and therefore no audit standards. There was no non-compliance to address. The study has highlighted that prophylactic use of negative pressure dressing in high-risk patients undergoing breast oncological and reconstructive surgery is being used in routine practice at the Trust.
REspiratory COmplications after abdominal Surgery (RECON) (18/19)	<p>This was a study to determine the impact of pulmonary complications on death after surgery both before and during the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) pandemic.</p> <p>This study has helped understand the detriment of surgery taking place during the pandemic and that we must do our utmost to protect surgical patient from contracting COVID-19</p>
IbRAnet localisation study: SAVI SCOUT	<p>This was a project to assess the use of the novel technology to see if this improves localisation of non-palpable lesions and improve the excision rate of these lesions.</p> <p>The study concludes that it is a safe and acceptable technique, provides flexibility in preoperative planning but introduces a significant cost.</p>
National Neonatal Audit Programme - Neonatal Intensive and Special Care (NNAP) (2021/2022) 2022/2023	Overall 97.8% compliant with standard, however some improvement actions have been taken in certain areas. This includes differed cord clamping, temperature management and monitoring of newborn babies <32 weeks, parental consultation, additional funding for neonatal staffing, support and training around breastfeeding.



Statements of Assurance

National Audit Title	Actions to be taken by RWT
National Audit: National Maternity and Perinatal Audit (NMPA) (2018/2019) 2022/2023	<p>Maternity and neonatal services at RWT are developing an overarching action and improvement plan incorporating recommendations from several national requirements including 'Single Delivery Plan', Ockenden Immediate essential actions, CNST maternity incentive scheme, ICB / LMNS workstreams, Saving Babies Lives Care Bundle V3, MBRRACE, The East Kent Report, CQC, and Baby Friendly Initiative standards (among others).</p> <p>Local improvement actions have been split into key objectives around personalised care, equity, working with services users to improve care, growing and retaining workforce, investment in skills, patient safety culture, learning, support and oversight, standards to support best practice, data and use of digital technology.</p>
MBRRACE (Maternal, Newborn and Infant Clinical Outcome Review) Audit - Perinatal Mortality Surveillance Report-UK Perinatal Deaths for Births (2020/2021) 2022/2023	
National Audit - Perinatal Mortality Review Tool (PMRT) (2021/2022) 2022/2023	
MBBRACE-UK (Maternal, Newborn and Infant Clinical Outcome Review Programme)- Perinatal Confidential Enquiry- Stillbirths and neonatal deaths in twin pregnancies (2018/2019) 2022/2023	
MBBRACE (Maternal, Newborn and Infant Clinical Outcome Review) Saving Lives Improving Mothers' Care - Maternal mortality surveillance and confidential enquiry (2018-2020) 2022/2023	
National Joint Registry (NJR) Annual Report (2020/2021) 2022/2023	<p>The service is meeting or exceeding the national average in all areas. However, some improvements have been applied locally including compliance with consent and linkability for neck of femur total hip arthroplasty patients. This has been added to the patient information booklet.</p>
Corona Virus in Hip Fracture - CHIP2 National Study: Is vitamin D associated with increased mortality from COVID-19 infection in a hip fracture population? - National Observational Study 2020 data (2022/2023)	<p>National data only - none of the recommendations were applicable to RWT.</p>
Falls and Fragility Fractures Audit programme (FFFAP) National Audit of Hip Fracture Database (2021) 2022/2023	<p>Service is meeting or exceeding the national average in all areas including all the requirements of Best Practice Tariff. No local actions.</p>
National Joint Registry (NJR) Annual Report (2021)) 2022/2023	<p>RWT performed well above national average - no local actions.</p>
National Audit British Spine Registry (2021) 2022/2023	<p>National data only - none of the recommendations were applicable to RWT.</p>
Falls and Fragility Fractures Audit programme (FFFAP) National Audit of Inpatient Falls (2021/2022) 2022/2023	<p>There has been increased education and teaching regarding tagging to help prevent falls. Embedded to all staff including therapy teams, junior doctors, flow coordinators and pharmacy staff. Practice education facilitator providing training and support.</p>
Muscle Invasive Bladder Cancer at Transurethral REsection of Bladder (MITRE) Audit (2022/2023)	<p>RWT performed well above national average - no local actions.</p>
National Prostate Cancer Audit (2020/2021) 2022/2023	<p>National data only - none of the recommendations were applicable to RWT.</p>



Participation in clinical research

National studies have shown that patients cared for in research-active NHS trusts have better clinical outcomes. Ensuring patients are given an option to participate in clinically appropriate research trials is a national and local target and identified by patients as an important clinical choice.

The Royal Wolverhampton NHS Trust's performance in research continues to be on a par with the large acute trusts within the West Midlands region.

The Research and Development Directorate team has focused on delivering the recovery, resilience and growth programme for research following the disruption caused by the pandemic. A total of 42 new studies were opened during 2022/23. Participants have taken part in research projects across a range of services provided by the Trust including oncology, Haematology, rheumatology, cardiology/cardiothoracic, obstetrics, surgery, paediatrics, gastroenterology, respiratory, diabetes, ophthalmology, renal, stroke/neurology and primary care.

Our 2022/23 research experience survey, completed by 133 participants, showed:

94% felt fully informed about the study prior to taking part

84% felt valued for taking part in the research study

90% felt they were always treated with courtesy and respect

86% would consider taking part in research again

For consideration:

Providers of acute services are asked to include a statement regarding progress in implementing the priority clinical standards for seven-day hospital services. This progress should be assessed as guided by the Seven Day Hospital Services Board Assurance Framework published by NHS Improvement. Further information can be found at <https://improvement.nhs.uk/resources/seven-day-services/>

Use of the CQUIN payment framework

A proportion of Royal Wolverhampton NHS Trust's income in 2022/23 was conditional on achieving quality improvement and innovation goals agreed between the Trust and any person or body they entered into a contract, agreement or arrangement with for the provision of relevant health services, through the Commissioning for Quality and Innovation payment framework.

Further details of the agreed goals for April 2022-March 2023, and for the following 12-month period, are available electronically at NHS England » 2022/23 CQUIN.





Statements of Assurance

Statements from the Care Quality Commission

The Royal Wolverhampton NHS Trust is required to register with the Care Quality Commission (CQC) and its current registration status is “registered without conditions or restrictions”.

The CQC has not taken enforcement action against The Royal Wolverhampton NHS Trust during 2022/23.

The Royal Wolverhampton NHS Trust has not participated in any special reviews or investigations by the CQC during the reporting period.

Statement on relevance of Data Quality and your actions to improve your Data Quality

The Royal Wolverhampton NHS Trust submitted records during 2022/23, (current data available up to Month 11: April 2022-February 2023) to the Secondary Uses Service for inclusion in the Hospital Episode Statistics which are included in the latest published data.

The percentage of records in the published data which included the patient’s valid NHS number was:

- 99.8% for admitted patient care
- 99.9% for outpatient care and
- 99.2% for accident and emergency care

The percentage that included the patient’s valid General Medical Practice Code was:

- 100% for admitted patient care
- 100% for outpatient care
- 100% for accident and emergency care

The Trust continually monitors data quality using external and internal data quality dashboards and reporting suites, identifying any areas that may require further focus.

External reports are used to monitor data quality within the organisation via Secondary Uses Service (SUS) data quality dashboards, Data Quality Maturity Index (DQMI) and University Hospitals Birmingham Hospital Evaluation Data Tool (HED).

The corporate Data Quality Team continues to provide assurance to support improvement of data quality within the Trust, which helps to underpin the provision of excellent services to patients and other customers:

- First point of call, answering and resolving thousands of queries and helping to support teams in ensuring all data is recorded accurately, timely, completely, and meeting all standards
- Support for IT projects continued with testing, validation and systems expertise provided by the team
- Promote data quality compliance Trustand getting the data right at point of entry
- Creating new data quality dashboards to show both compliance and areas of improvement
- Encourage good data quality beyond our usual KPIs; this includes audits into additional information such as ethnicity





- A data quality forum was established in 2017. There are terms of reference for this group and the chair is the head of clinical coding and data quality
- The Data Quality Department is responsible for monitoring and recording data quality issues identified in the organisation and for ensuring action plans are in place to address these. The department reviews the issues and prioritises them on an issues log, holds action plans for issues and manages progress against these
- Compliance is checked against indicators to assess the quality of the information on our Patient administration system (PAS) in relation to patients
- The Trust's data quality policy is in place and was reviewed in October 2022.



NHS Number and General Medical Practice Code Validity

Clinical Coding Error Rate

The Royal Wolverhampton NHS Trust was not subject to the Payment by Results clinical coding audit during 2022/23 by the Audit Commission.

The Royal Wolverhampton NHS Trust has taken the following actions to improve data quality:

The annual external Data Security & Protection Toolkit (DSPT) clinical coding audit took place during 2022/23, achieving an overall "Standards Exceeded" rating in all areas of the audit.

A programme of continuous improvement audits on clinical coding is in place and audits take place monthly. The Trust has a robust two-year training programme for trainee coders and existing staff undertake coding training workshops yearly. In addition, all mandatory national training is completed yearly, ensuring all coders are compliant with training requirements.

Key Achievements in 2022/23:

- Achievement of "Standards Exceeded" for DSPT
- In depth speciality and clinical coder-based audits improving quality from the previous year
- Continued engagement with consultants and clinical teams
- Improved depth of coding

Clinical coding/data quality reports are in place to ensure quality of coding is maintained and continually improved - examples include HED Report, SHMI and DQMI.



Statements of Assurance

Data security and protection toolkit

Summary of serious incident requiring investigations involving personal data, as reported to the Information Commissioner's Office in 2022/23.

The table below details the incidents reported on the NHS Digital incident reporting tool and to the Information Commissioner's Office (ICO), within the financial year 2022/2023. Any incidents that are still being investigated for the period 2022/23 are not included. The incidents listed below are for the Royal Wolverhampton NHS Trust and GP partnerships that have joined the Trust, as listed below.

Date incident occurred (Month)	Nature of incident	Number of data subjects	Description/nature of data involved	Further action on information risk
August 2022	Cyber incident	None affected	Ransomware attack against Advanced Health and Care Limited (Advanced). Advanced act as a data processor for Royal Wolverhampton NHS Trust and provide services to the Trust which were impacted. No data is known to be compromised but the systems were unavailable for a period of time while the supplier was investigating.	Technical remediation was put in place before system was made available again. During this time business continuity plans were enacted to maintain service provision.

Incidents classified at lower severity level - Incidents classified at severity level 1 are aggregated and provided in table below. Please note this is not all incidents, just level 1s against the below listed categories:

Summary of other personal data related incidents		
Category	Breach type	Total
A	Corruption or inability to recover electronic data	5
B	Disclosed in error	107
C	Lost in transit	3
D	Lost or stolen hardware	1
E	Lost or stolen paperwork	16
F	Non-secure disposal - hardware	0
G	Non-secure disposal - paperwork	5
H	Uploaded to website in error	1
I	Technical security failing (including hacking)	2
J	Unauthorised access/disclosure	12
Total		152





Data Protection and Security Toolkit Return 2022-2023 - final submission

The Royal Wolverhampton NHS Trust	RL4	Standards Met
Alfred Squire	M92002	Standards Met
West Park Surgery	M92042	Standards Met
Thornley Street	M92028	Standards Met
Lea Road	M92007	Standards Met
Penn Manor	M92011	Standards Met
Coalway Road	M92006	Standards Met
Warstones	M92044	Standards Met
Oxley Surgery	M92014	Standards Met
Tettenhall Road Medical Practice	M92640	Standards Met

An internal audit of the DSP toolkit in March 2023 had provided adequate assurance of the processes and evidence that is in place to support the DSP toolkit submission.

Looking forward to 2023/24 data security and protection

The Trust continues to monitor patterns and trends of data security incidents and implementing measures to reduce these to the lowest level practicable. Current risks include continued and increasing risk of external threats in relation to cyber security, particularly via email phishing. Other risks to data security include disclosure in error via various means, and this is attributed to the ways of working in health, with increased remote working.

The Trust remains focused on embedding principles of privacy by design into Trust processes, from procurement to digital innovation and service redesign. This programme of work will be monitored through the committees below:

- The Trust has several committees dedicated to reviewing assurance in relation to DSPT and GDPR, chaired by senior board members.
- The chief medical officer is the Trust's trained Caldicott Guardian and is responsible for protecting the confidentiality of patient and service-user information and

enabling appropriate information sharing. The Guardian plays a key role in ensuring the Trust satisfies the highest practical standards for handling patient identifiable information, and chairs the Information Governance (IG) Steering Group.

- The chief financial officer is the Trust's Senior Information Risk Officer (SIRO) and is responsible for monitoring the Trust's overall information risk, ensuring we have a robust incident reporting process for information risks. The SIRO reports to the Trust Board and provides advice on the matter of information risk. The SIRO is also a member of the IG Steering Group and co-chair of the GDPR Implementation Group.
- The Trust has an assigned data protection officer who acts independently to ensure compliance with the GDPR as well as monitoring its application across the Trust. The DPO has a reporting line into the Caldicott Guardian through to the Trust Board.
- The Trust is in the process of implementing a robust asset management system and defining clear responsibilities for information asset owners across the Trust to facilitate robust and timely escalation of information risk to the SIRO.
- All Trust staff receive appropriate annual training on data security and protection principles.

Seven Day Services

The Clinical Audit Team is now picking up the seven day service audit as part of the clinical audit programme at the Royal Wolverhampton NHS Trust. The audit is currently ongoing.





Core Quality Indicators - Summary Hospital Level Mortality Indicator (SHMI)

The Royal Wolverhampton NHS Trust considers that this data is as described for the following reasons:

The Summary Hospital-level Mortality Indicator (SHMI) is the most commonly used indicator to compare the number of deaths in the Trust with the number expected on the basis of average England figures, taking particular characteristics (e.g. age, co-morbidities and diagnosis profile) into account. The score includes the deaths in hospital as well as those that occur within 30 days of discharge over a rolling year.

Where it is suspected that a death could have been prevented, an investigation is conducted via root cause analysis to understand the reasons and draw up robust action plans.

Indicator	September 2021 to August 2022	October 2021 to September 2022	November 2021 to October 2022
SHMI RWT	0.938	0.935	0.928
SHMI England	1	1	1

The SHMI is lower compared to 2021/22. The Trust has been categorised as being "within the expected" range for the past year. The improvement in SHMI is a result of both an increase in expected deaths and a decrease in the observed deaths.

The Royal Wolverhampton NHS Trust has a robust mortality governance process underpinned by the Learning from Deaths Programme:

- The Trust continues to have reporting and investigation mechanisms for the SHMI, overseen by the Mortality Review Group (MRG). Diagnosis groups with a higher-than-expected SHMI are investigated by a data quality review, followed by a case note review where indicated, with results reported at the MRG and action plans developed.
- SHMI on its own is not a quality metric. The Trust continues with a key programme of work designed to scrutinise clinical care, provide assurance that gaps in care are identified and acted upon, that gaps in quality of documentation are identified and corrected, and that systems of care provision are developed to the benefit of individual patients and the wider population.

This programme has developed over the last 12 months and included:

- Further strengthening the process of scrutiny and review of deaths in hospital via the medical examiner and mortality reviewer processes
- Successful expansion of the medical examiner service to undertake reviews of deaths in the non-acute (community) setting
- Expansion of the mortality reviewer process to the vertically integrated primary care network (PCN) - RWT PCN to capture learning across the entire patient pathway
- Focus on specific diagnostic groups including assurance of clinical pathways and developments of resultant action plans
- Improving the quality of coding and documentation
- Learning from deaths, including listening to the bereaved families and carers and involving them in key processes
- Provision of end-of-life care in patients' homes and care homes with an emphasis on admission avoidance where appropriate
- A programme of continuous quality improvement

Progress against the agreed actions and the mortality improvement plan is monitored by the relevant quality boards. In addition, mortality associated reports are regularly presented to the Trust Board.

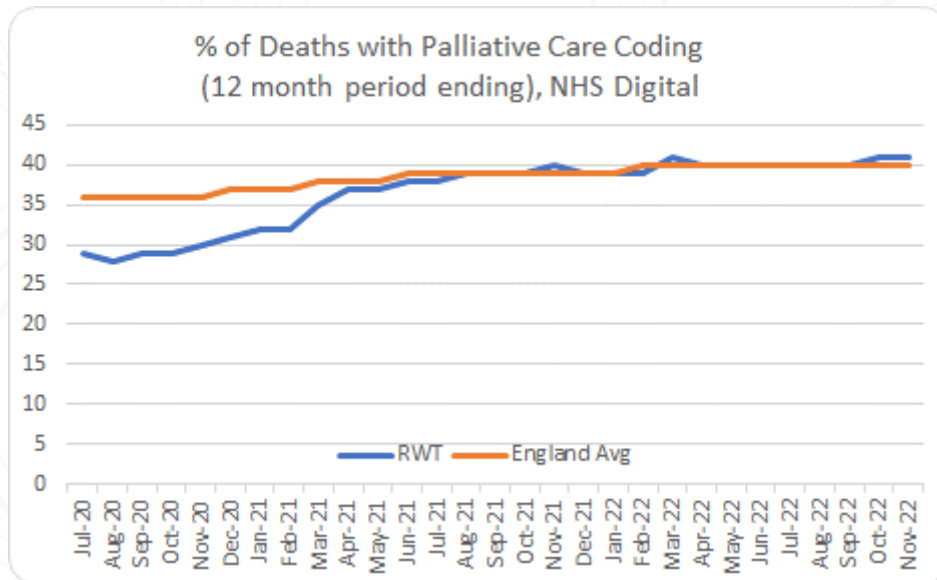
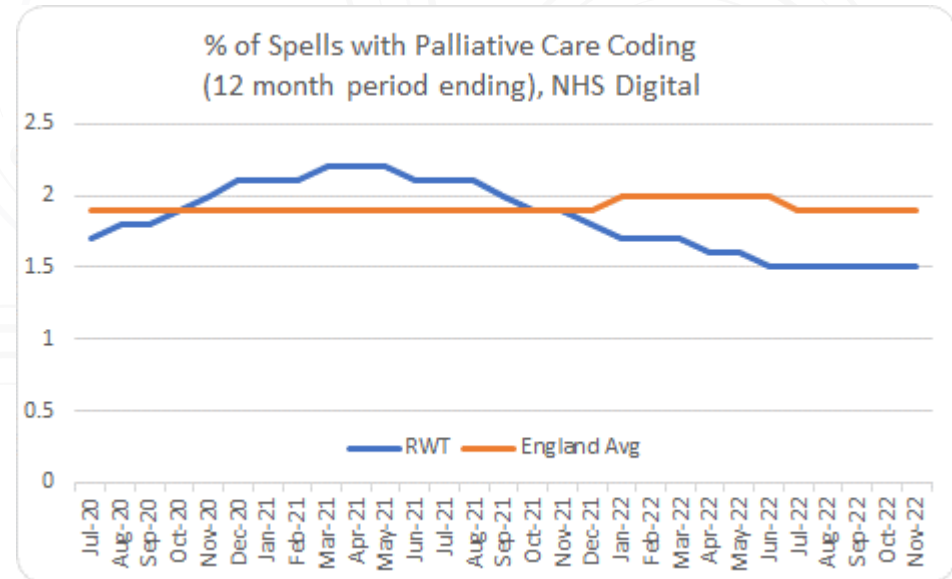




Core Quality Indicators - Summary of patient death with palliative care

Percentage of deaths with palliative care coding, recorded at diagnosis or specialty level:

	RWT	England Avg
% of spells (stays in hospital from admission to discharge) with palliative care coding	1.5	1.9
% of deaths with palliative care coding	41	40
% of spells with COVID-19 coding	3.8	4.8



The Royal Wolverhampton NHS Trust intends to take/has taken the following actions to improve this, and so the quality of its services in 2023/24, by:

- Business case submission for expansion of the Specialist Palliative Care Team in view of increased referrals
- Ongoing development and expansion of supportive care virtual ward, to include amber and red patients in partnership with community services and Compton Care
- PRADA - Proactive risk-based assessment tool to identify patients in last year of life, facilitating earlier intervention and advance care planning
- Collaboration with RWT community and Compton Care.



Core Quality Indicators - Learning from Deaths

	Prescribed information	Form of statement
A	The number of its patients who have died during the reporting period, including a quarterly breakdown of the annual figure.	<p>During April 2022 and March 2023, 2,157 adult patient hospital deaths were recorded at the Trust. This comprised the following, in each quarter of that reporting period:</p> <ul style="list-style-type: none"> • 520 in the first quarter • 489 in the second quarter • 579 in the third quarter • 569 in the fourth quarter
B	The number of deaths included in item A which the provider has subjected to a case record review or an investigation to determine what problems (if any) there were in the care provided to the patient, including a quarterly breakdown of the annual figure.	<p>By 31 March 2023, 2,074 case record reviews (medical examiner [ME]) assessments followed by Structured Judgment Reviews (SJRs) in selected cases based on the criteria) and 14 root cause analysis investigations (RCA) have been conducted in relation to 2,157 of the deaths included in item A.</p> <p>In 14 cases a death was subjected to both a case record review and an investigation. The number of deaths in each quarter for which a case record review or an investigation was conducted was:</p> <ul style="list-style-type: none"> • 500 ME assessments/SJRs + 1 RCAs in the first quarter • 458 ME assessments/SJRs + 5 RCAs in the second quarter • 553 ME assessments/SJRs + 3 RCAs in the third quarter • 563 ME assessments/SJRs + 5 RCAs in the fourth quarter <p>Please note: 19 Structured Judgement Reviews stage 1 (SJR1) remain outstanding across 2022/23, which are actively being progressed. It is also important to note that cases that have been through ME process are included in the above figures.</p>
C	An estimate of the number of deaths during the reporting period included in item B for which a case record review or investigation has been carried out which the provider judges as a result of the review or investigation were more likely than not to have been due to problems in the care provided to the patient (including a quarterly breakdown), with an explanation of the methods used to assess this.	<p>A total of four cases (representing 0.14% of the adult patient deaths) during the reporting period are judged to be more likely than not to have been due to problems in the care provided to the patient.</p> <p>In relation to each quarter, this consisted of:</p> <ul style="list-style-type: none"> • [0%] 0 cases for the first quarter • [0.61%] 3 cases for the second quarter • [0%] 0 cases for the third quarter • [0%] 0 cases for the fourth quarter <p>These numbers have been determined using evidence from the RCA investigations involving deaths that were subject to review under the serious incident framework.</p> <p>(The NHS Serious Incident Framework recommends this approach where unexpected deaths or omission of care where harm has been caused are investigated).</p>



D	A summary of what the provider has learnt from case record reviews and investigations conducted in relation to the deaths identified in item C.	<p>Themes that have emerged from reviews of deaths at the Trust include.</p> <ul style="list-style-type: none"> • Delay in treatment • Communication.
E	A description of the actions which the provider has taken in the reporting period, and proposes to take following the reporting period, in consequence of what the provider has learnt during the reporting period (see item D).	<p>Actions to address the above thematic issues are as follows:</p> <p>Delay in treatment</p> <p>Action completed:</p> <ul style="list-style-type: none"> • To make the process of acting on abnormal results telephoned from clinical chemistry more robust and auditable • The need for clinicians to be systematic in all aspects of their review of patients • Dropping hemoglobin levels should prompt investigation and management for gastrointestinal hemorrhage including proton pump inhibitor prescription • In-reach gastro team attend to assess patients' needs before bringing them up to the ward. • Communication <p>Action completed:</p> <ul style="list-style-type: none"> • RCA should be discussed at governance meetings for acute medicine and cardiology. Wider dissemination to all medical governance meetings • Escalation of treatment should be based on clinical findings and the management plan needs to be clearly communicated to nursing staff on the ward with information regarding the timings and expectations for review of the patient • To continue with the implementation of the "push" model to ensure that patients from ED and AMU are transferred at set times in the day (10am and 12pm). • Staff on receiving ward to review risk assessments to ensure that patients' safety needs are being met.
F	An assessment of the impact of the actions described in item E which were taken by the provider during the reporting period.	A key impact of the actions has been to continue full implementation of the mortality improvement programme and the associated plan which is underpinned by the mortality strategy. In addition, the focus will remain on ensuring that the learning identified through the Trust's mortality review process is systematically implemented.
G	The number of case record reviews or investigations finished in the reporting period which related to deaths during the previous reporting period but were not included in item B in the relevant document for that previous reporting period.	24 case record reviews and 10 investigations completed after 1 April 2022 related to deaths which took place before the start of the reporting period.



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H	An estimate of the number of deaths included in item G which the provider judges as a result of the review or investigation were more likely than not to have been due to problems in the care provided to the patient, with an explanation of the methods used to assess this.	0.18% of the patient deaths before the reporting period are judged to be more likely than not to have been due to problems in the care provided to the patient.
I	A revised estimate of the number of deaths during the previous reporting period stated in item C of the relevant document for that previous reporting period, taking account of the deaths referred to in item H.	0.18% of the patient deaths during 2021/22 are judged to be more likely than not to have been due to problems in the care provided to the patient.



Core Quality Indicators - Summary of Patient Reported Outcome Measures (PROMS)

Patient Reported Outcome Measures (PROMS) assess the quality of care delivered to NHS patients from their perspective, regarding the health gains for the following two surgical interventions using pre- and post-operative survey questionnaires:

- Hip replacement surgery
- Knee replacement surgery

The questionnaire does not differentiate between first time intervention or repeat surgery for the same procedure.

The table outlines the post-op score by procedure based on the EQ-5D Index:

	April 2019 - March 2020	April 2020 - March 2021	April 2021 - March 2022
Hip Replacement Surgery	0.79	0.84	
Knee Replacement Surgery	0.75	0.73	

Statement from NHS Digital regarding missing data:

"In 2021 significant changes were made to the processing of hospital episode statistics (HES) data and its associated data fields which are used to link the PROMS-HES data. Redevelopment of an updated linkage process between these data are still outstanding with no definitive date for completion at this present time. This has unfortunately resulted in a pause in the current publication reporting series for PROMs at this time.

"We endeavour to update this linkage process and resume publication of this series as soon as we are able but unfortunately are unable to provide a timeframe for this. We will provide further updates as soon as this is known."





Core Quality Indicators - Re-admission Rates

Adult readmission rates remain largely unchanged from previous years.

Work within the Trust to deliver the right care at the right time in the right location continues to be a focus. For a number of patients this means safely avoiding admission or facilitating an earlier discharge with ongoing support and monitoring at home. Key areas of work include:

- Work to deliver same day emergency care within medicine, frailty, gynecology, head and neck, and surgery
- Further development and use of virtual wards
- Ongoing expansion of the huddle tool to support timely discharge
- Flow initiatives including criteria led handover and criteria led discharge

Readmissions in RWT

All data from PAS, using the national definition of a readmission 2015/16-2022/23

Readmissions									Grand Total
Age	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	
Aged 4-15	440	505	423	359	428	269	348	443	3,215
16yrs and over	5,966	5,443	5,165	5,677	6,018	4,051	7,967	8,659	48,946
Grand Total	6,406	5,948	5,588	6,036	6,446	4,320	8,315	9,102	52,161

Total Admissions									Grand Total
Age	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	
Aged 4-15	5288	5429	5117	4,668	4,813	2,899	4,078	4,592	36,884
16yrs and over	115,288	118,585	117,355	117,669	120,049	90,876	136,824	147,554	964,200
Grand Total	120,576	124,014	122,472	122,337	124,862	93,775	140,902	152,146	1,001,084

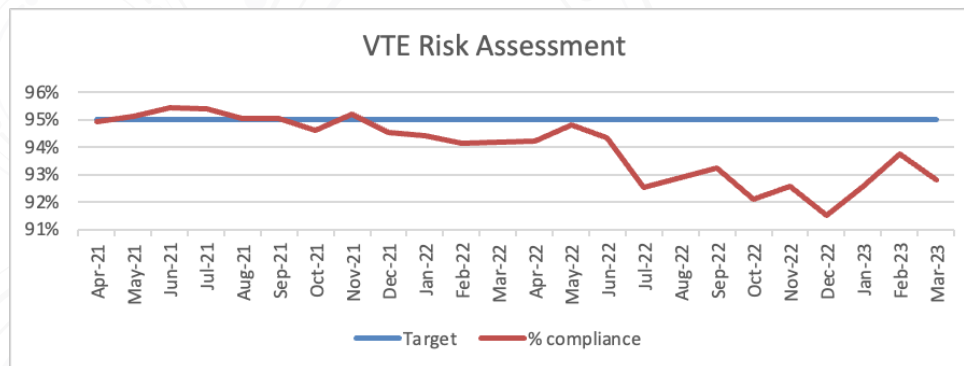
Percentage Readmissions									Grand Total
Age	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	
Aged 4-15	8%	9%	8%	8%	9%	9%	9%	10%	9%
16yrs and over	5%	5%	4%	5%	5%	4%	6%	6%	5%
Grand Total	5%	5%	5%	5%	5%	5%	6%	6%	5%



Core Quality Indicators - Venous Thromboembolism (VTE)

Venous thromboembolism (VTE) or blood clots, are a major cause of death in the UK. Hospitalisation on its own is a significant risk factor. The risk of hospital-associated blood clots can be reduced by assessing an individual's predisposing risk factors for blood clots, reason for admission and then administering preventative measures. The national target is that 95% of all patients over the age of 16 have a VTE risk assessment completed on admission. Our data reports all patients who received an individual VTE risk assessment within 24 hours of admission or met the criteria for a low risk cohort group.

The graph below illustrates the Trust's compliance over time.



Despite the challenges of the last two years and the pause in national data submission, we have continued to internally monitor our VTE risk assessment compliance. The timeliness of VTE risk assessment has been below our expected criteria and we continue to work with clinical areas to identify service improvement opportunities. Patient safety and effective care remain our priority and improving VTE risk assessment completions within 24 hours is our key target for the coming year, as is ensuring that patients receive care in line with their VTE risk assessment and individual needs. We continue to explore ways to improve compliance, including digital solutions and are currently preparing to apply for a VTE exemplar buddy which will allow us to work with an organisation with exemplar status in order to learn and share best practice.



National data submissions to NHS digital have remained suspended since March 2020 due to the COVID-19 pandemic, therefore there is no national data currently available for benchmarking purposes.

We believe our performance:

- Demonstrates that the Trust has a robust process in place for collating data on venous thromboembolism risk assessments completed within 24 hours of admission
- Reflects the challenges of increased activity and impact on our compliance as a result of the COVID-19 pandemic and associated recovery plans.



Core Quality Indicators - Clostridium difficile

	2018-19	2019-20	2020-21	2021-22	2022-23
Trust apportioned cases (hospital and community onset cases)	45	43	46	57	72
Trust apportioned cases hospital onset only (excludes community onset cases)	37	33	35	44	58
Trust bed days (calculated using hospital onset cases and rate)	289,063	289,728	289,017	289,093	269,777
Rate per 100,000 bed days (hospital onset cases only)	12.80	11.39	12.11	15.22	21.5
National average (hospital onset cases only)	14.00	15.38	14.09	17.30	22.21
Best performing Trust (hospital onset cases only)	0	0	0	0	0
Worst performing Trust (hospital onset cases only)	90.04	66.47	69.27	79.43	79.43

* These bed days have been calculated using *C.difficile* number and rate (data supplied by UKHSA). These numbers do not match those that are held by RWT information department for the same time periods. A query has been submitted to UKHSA on 25 May 2023 regarding this and a response is awaited.

The Royal Wolverhampton NHS Trust considers that this data is as described for the following reasons:

The Trust collates numbers monthly and submits to UKHSA. Figures for apportioned cases, apportioned cases (hospital onset only), rate per 100,000 bed days and national figures have all been taken from the UKHSA Healthcare Associated Infection Mandatory Surveillance Data Capture System. Bed days have been calculated using the apportioned cases (hospital onset only) and the rate per 100,000 bed days.

The Royal Wolverhampton NHS Trust has implemented a *C. difficile* action plan, to include ongoing weekly *C. difficile* and antimicrobial stewardship ward rounds, education of ward staff, *C. difficile* toolkits monthly to assess cases, thematic review of cases and the annual deep clean programme.





Core Quality Indicators - Incident Reporting

The data made available to the Trust by the information centre regarding Incident Reporting:

2021/22 (full year data)			2022/23 (full year data)		
Incidents	% resulting in death	% resulting in severe harm	Incidents	% resulting in death	% resulting in severe harm
12,538	0.4% (45)	0.3% (35)	16,356	0.2% (29)	0.2% (36)

The Trust defines severe or permanent harm as follows:

Severe harm: a patient safety incident that appears to have resulted in permanent harm to one or more persons receiving NHS-funded care.

Permanent harm: permanent lessening of bodily functions including sensory, motor, physiological or intellectual. It is harm directly related to the incident and not related to the natural course of a patient's illness or underlying condition.

The Royal Wolverhampton NHS Trust considers that this data is as described for the following reasons:

- The Trust has a well embedded reporting culture as evidenced by benchmark comparisons within the National Learning and Reporting System (NRLS).
- It promotes the reporting of "near miss" incidents to enable learning and improvement and undertakes data quality checks, to ensure that all patient safety incidents are captured and appropriately categorised to submit a complete data set and enable wider learning from adverse events.





Statements of Assurance

Core Quality Indicators - National Inpatient Survey

CQC National Adult Inpatient Survey 2021 published results from CQC September 2022

The 2021 Inpatient Survey was part of a national survey programme run by the Care Quality Commission (CQC) to collect feedback on the experiences of inpatients using NHS services across the country. The results contribute to the CQC's assessment of NHS performance as well as ongoing monitoring and inspections. The programme also provides valuable feedback for NHS trusts, which they can then use to improve patient experience.

Patients were eligible to take the survey if they were 16 years or older, had spent one night in hospital during November 2021 and were not admitted to maternity or psychiatric services. Fieldwork for the survey (the time during which questionnaires were sent out and returned) took place between January and May 2022.

The survey is split into eight categories: ED, waiting list and planned admissions, the hospital and ward, doctors, nurses, care and treatment, operations and procedures, leaving hospital.

There are five questions highlighted as "CQC questions" - areas of focus that the CQC were particularly interested in. The results of these questions and comparable results between 2020 and 2021 are shown in the table below:

Category	Question	2020	2021	% increase/decrease from 2020
The hospital and ward	Did the hospital staff explain the reasons for being moved in a way you could understand?	59.0%	62.0%	+3%
The hospital and ward	If you brought your own medication with you to hospital, were you able to take it when you needed to?	79.0%	76.0%	-3%
The hospital and ward	Were you offered food that met any dietary needs or requirements you had? This could include religious, medical or allergy requirements, vegetarian/vegan options, or different food formats such as liquified or pureed food.	80.0%	79.0%	-1%
Leaving hospital	After leaving hospital, did you get enough support from health or social care professionals to help you recover and manage your condition?	60.0%	63.0%	+3%
Overall views of care and services	During your hospital stay, were you ever asked to give your views on the quality of your care?	9.0%	7.0%	-2%

Nationally, gaining views on quality of care is always a low scoring question. The Trust has revisited its various posters for patient feedback. Place mats have been amended to seek views.





Most improved scores

The table details those questions that saw a more than five per cent increase. Both questions relate to leaving hospital:

Category	Question	2020	2021	% increase/ decrease from 2020
Leaving hospital	Did a member of staff explain the purpose of the medicines you were to take home in a way you could understand?	48%	54%	+6%
Leaving hospital	Before you left hospital, were you given any written or printed information about what you should or should not do after leaving hospital?	74%	81%	+7%

Medication features in a couple of questions although there was a reduction in score which was worse than expected from 79% to 74% for the question: "If you brought medication with you into hospital, were you able to take it when you needed to?"



Deteriorating scores

The table below details those questions where there was a statistically significant change in score.

Communication, as always, features as a common theme and for this survey, specifically about the patient not being able to understand. This applied to communication by both doctors and nurses.

The Trust can see that the other two questions specifically relate to capacity issues. In particular, waiting to get a bed on a ward and also notice when being discharged:

Category	Question	2020	2021	% increase/ decrease from 2020
Waiting to get a bed on a ward	From the time you arrived at the hospital, did you feel that you had to wait a long time to get a bed on a ward?	74%	67%	-7%
Doctors	When you asked doctors questions, did you get answers you could understand?	89%	84%	-5%
Nurses	When you asked nurses questions, did you get answers you could understand?	88%	84%	-4%
Leaving hospital	Were you given enough notice about when you were going to leave hospital?	72%	66%	-7%

Obtaining feedback from patients is vital for bringing about improvements in the quality of care and this is an excellent way for inpatients to directly influence services locally. Heads of nursing have been compiling an action plan to address areas where improvements can be made.

Our score for the five questions in the national inpatient survey relating to responsiveness and personal care is 73.5% against a national average of 74.5%. This is an improvement of six per cent when compared to 2019-20.

The Adult Inpatient Survey 2022 provisional results are due to be received Trust in June 2023. However, the official CQC results will not be released until September 2023 (date to be confirmed) and will feature in next year's Quality Account.



Statements of Assurance

Core Quality Indicators - Patient Friends and Family Test (FFT)

Patient recommendation to friends and family

The Friends and Family Test (FFT) is a nationwide initiative which is a simple, single question survey which asks patients to what extent they would recommend the service they received at a hospital department to family or friends who need similar treatment. The tool provides a simple, headline metric, which when combined with a follow up question and triangulated with other forms of feedback, is used across services to drive a culture of change and of recognising and sharing good practice.

Results of these surveys are received monthly and shared at directorate, divisional and Trust Board level in the form of divisional dashboards.

We believe that patient recommendation to their friends and family is a key indicator of the quality of care we provide. We believe our performance reflects that:

- the Trust has a process in place for collating data on the Friends and Family Test data is collated internally and then submitted on a monthly basis to the Department of Health and Social Care
- data is compared to our own previous performance, as set out in the table below.

The friends and family test recommendation scores are illustrated in the tables below. These include percentage changes on 2021/22 and the 2022/23 response rates. The Trust's overall average recommendation score for 2022/23 was 83%. When looking at the different touch points, there is a fluctuation of 8% with scores ranging between 77% and 85%. The Trust's overall response rate has varied between 15% and 20%.



	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23
Trust overall recommendation score	83%	84%	83%	84%	84%	85%	82%	82%	77%	85%	86%	84%

	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23
Trust overall score - response rate	18%	18%	18%	18%	18%	19%	20%	18%	16%	18%	18%	15%



Friends and Family Test	Inpatients and Day case (consolidated)				Outpatients				ED				Community			
	Q1	Q2	Q3	Q4*	Q1	Q2	Q3	Q4*	Q1	Q2	Q3	Q4*	Q1	Q2	Q3	Q4*
2022/23	92%	92%	91%	92%	93%	93%	94%	94%	71%	71%	65%	72%	90%	87%	90%	91%
2022/23 comparison against 2021/22	-1	=	-1	+1	+12	+17	+12	+24%	-4%	+3%	-3%	=	-3%	-3%	-2%	=

Friends and Family Test	Antenatal				Birth				Postnatal Ward				Postnatal Community			
	Q1	Q2	Q3	Q4*	Q1	Q2	Q3	Q4*	Q1	Q2	Q3	Q4*	Q1	Q2	Q3	Q4*
2022/23	77%	89%	78%	86%	91%	95%	90%	93%	80%	82%	84%	87%	86%	82%	83%	82%
2022/23 comparison against 2021/22	-19%	+22%	-3%	+5%	-5%	+1%	-3%	=	-6%	=	-1%	+4%	+3%	-3%	-3%	-2%

* Q4 data subject to change in line with March 2023 data submissions for FFT being after reporting date

The below table illustrates the percentage difference between the Trust's recommendation score for each touchpoint and the local system and national results. The Trust scores higher for all the touchpoints for the (then)Black Country and West Birmingham Integrated Care System, except for Community. Comparisons with national scores indicate that Outpatients and Birth are above national scores.

	Inpatients	Outpatients	ED	Community	Antenatal	Birth	Postnatal Ward	Postnatal Community
Trust overall	94%	69%	73%	92%	88%	95%	88%	77%
Compared to STP*	+3%	+4%	+2	-2%	+1%	+6%	+4%	+5%
Compared to National*	-4%	+3%	-5	-3%	-7%	+3%	-1%	-6%

* The Black Country and West Birmingham ICS and national scores as at 28 February 2022.



Statements of Assurance

Core Quality Indicators - Supporting our staff

The Trust is one of the largest employers in its local community, employing 10,652 people. The Trust has several ways of engaging staff to improve employee engagement and to support staff to continuously strive for excellence in patient care. The efficacy of the Trust's staff engagement approach is measured principally through the annual national NHS Staff Survey and Quarterly Pulse Survey.

National NHS Staff Survey

The Trust has again undertaken a full census of the national NHS Staff Survey, in which all staff were invited to provide feedback on their workplace experience. The results have, for the second time, been measured against the seven people promise elements and two themes of staff engagement and morale. The specific words that make up the NHS People Promise have come from people in different healthcare roles - all making it clear what matters most to them and what would make the greatest difference in improving their experience in the workplace. These are:

- We are compassionate and inclusive
- We are recognised and rewarded
- We each have a voice that counts
- We are safe and healthy
- We are always learning
- We work flexibly
- We are a team

The Trust response rate was 34%, a 5% decrease, although this was proportionate to the increase in the workforce establishment. For the first time, bank workers were also invited to participate in the national NHS Staff Survey, and this yielded a 12% response rate (out of 1,195) people.

The Trust scored higher than average for acute and community trusts in four of the People Promises:

- We are recognised and rewarded
- We each have a voice that counts
- We are safe and healthy
- We work flexibly

We also scored higher than average in the two themes:

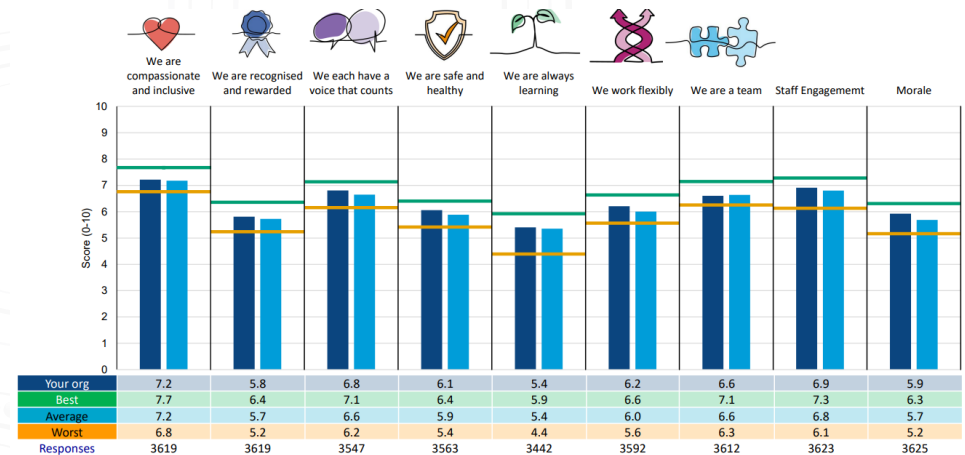
- Staff engagement
- Morale

Our scores are in line with the average for three People Promises:

- We are compassionate and inclusive
- We are always learning
- We are a team

Whilst all scores are above or in line with the sector average, they do show a decline from our 2021 Staff Survey results, with the exception of "we work flexibly", which has remained the same. This is likely in response to the Trust continuing to support agile and flexible working.

The table below shows the results for 2022 for each of the seven People Promise elements and the two themes and are scored on a 0-10 point scale, where 10 is the best score attainable. The table below shows the results for 2021 for each of the nine survey themes. Themes are on scored on a 0-10-point scale, where 10 is the best score attainable.





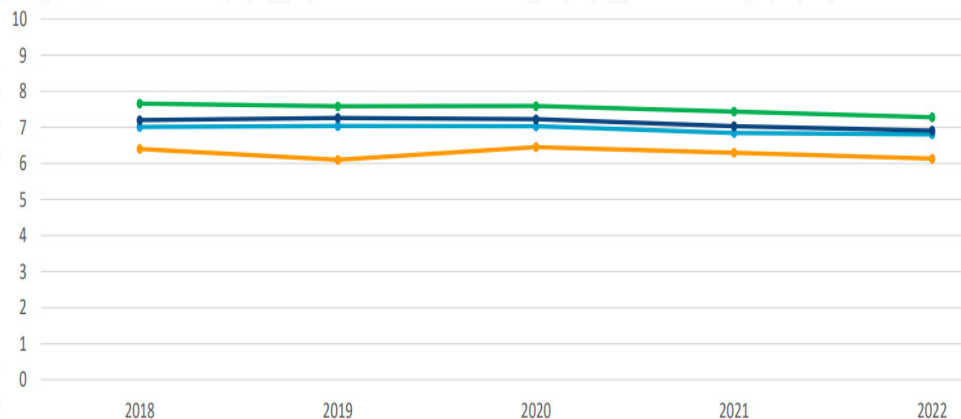
The Quarterly Pulse Survey response rate has shown a steady increase during 2022:

Q4 - 2021/22	Q1 - 2022/23	Q2 - 2022/23	Q4 - 2022/23
150	81	225	576

	Q4 - 2021/22	Q1 - 2022/23	Q2 - 2022/23	Q4 - 2022/23
Engagement	7.00	7.23	6.71	6.20
Advocacy	7.30	7.49	6.99	6.33
Involvement	6.60	6.91	6.54	6.02
Motivation	7.10	7.27	6.60	6.26

Staff Engagement

The graph below provides a comparison for each year from 2017 to 2022. Staff engagement levels within RWT have remained consistent over the last five years and are above average for the comparator group:



	2018	2019	2020	2021	2022
Your org	7.2	7.3	7.2	7.0	6.9
Best	7.7	7.6	7.6	7.4	7.3
Average	7.0	7.0	7.0	6.8	6.8
Worst	6.4	6.1	6.5	6.3	6.1
Responses	3125	3357	3275	3920	3623

The Royal Wolverhampton NHS Trust takes the following steps to develop and oversee continuous improvements in the staff survey:

- The results are shared across the Trust through the management structure to all local areas
- Results are discussed at monthly governance meetings
- Themes are identified at a trust, division and directorate level for priority action, and initial action plans developed. These will be monitored through the organisational and divisional governance structures
- Updates for assurance are provided at the Trust's People and Organisational Development Committee (PODC).

The Royal Wolverhampton Trust intends to take the following actions to improve this, and so the quality of its services, in 2023/2024 by:

The key objective is to improve overall employee engagement. This will be measured by benchmarking ourselves against our peers with the aim to show continual improvements, in response to key questions related to staff engagement. Identified priorities for 2023/24 include:

- Compile local/divisional /corporate action plans to drive further improvements in the national staff survey results.
- Divisions utilising a range of methods to communicate with and engage and involve staff locally in implementing improvement actions.
- Engage with the Trust's employee voice groups in sharing and gaining feedback on survey results and plans.
- Robust systems in place to evidence actions and improvements for underperforming areas.



Statements of Assurance

Supporting staff through speaking up

All staff have the option of raising concerns to their line manager in the first instance or to the next level of management if they feel unable to speak with their line manager. If staff feel unable to do this, for whatever reason, they can approach HR for advice, speak to a trade union representative or contact the Freedom to Speak Up Guardians. Two types of referral are available, identified and anonymous.

Other enquiries are emailed to: rwh-tr.freedomtospeak@nhs.net

When staff request an appointment, they can expect to:

- Talk through their concern in a safe space
- Have their concern kept confidential (within the set limits of confidentiality)
- Discuss the options of support available

Be signposted to support from other staff in the Trust if appropriate

Be offered support that is impartial and objective

Receive practical and non-judgmental advice.

Staff are routinely sent an email following their first appointment with a summary of next steps/action points, which includes how any issues that have been raised will be addressed. Staff are given the opportunity to feedback and have a follow-up call. Any agreed actions are monitored by the Guardian and feedback is given to the staff member as and when appropriate.

Within follow-up calls/discussions, the Guardian will monitor the impact of raising concerns on the staff member, ensuring they do not feel at a disadvantage. If detriment is experienced, this is followed up by the Guardian to explore further, and to prevent further detriment where possible.



Review of Quality

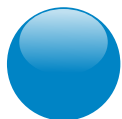
Our performance in 2022/23

Overview of the quality of care based on trust performance



As part of the standard NHS contract, the Trust is required to monitor and report performance against a set of key metrics. These indicators are all reported to the Trust Board monthly.

Our performance for 2022/23 is shown below. The COVID-19 pandemic clearly had a significant impact on our performance: large elements of the Trust's planned programme were suspended or curtailed to care for the surge in COVID-19 patients. Even when these suspensions were not in place, the performance measures below reflect the loss in productivity from working within a COVID-19 environment.



Performance

Performance against the National Operational Standards:

Indicator	Target 2022/23	Performance 2022/23	Performance 2021/22	Performance 2020/21
Cancer two week wait from referral to first seen date	93%	80.91%	81.87%	86.85%
Cancer two week wait for breast symptomatic patients	93%	84.29%	36.66%	51.42%
Cancer 31 day wait for first treatment	96%	75.83%	83.25%	86.03%
Cancer 31 day for second or subsequent treatment - Surgery	94%	54.67%	63.80%	76.02%
Cancer 31 day for second or subsequent treatment - Anti cancer drug	98%	82.36%	96.56%	97.92%
Cancer 31 day for second or subsequent treatment - Radiotherapy	94%	82.32%	84.96%	92.61%
Cancer 62 day wait for first treatment	85%	38.22%	47.36%	55.49%
Cancer 62 day wait for treatment from consultant screening service	90%	37.17%	48.66%	58.33%
Cancer 62 day wait - Consultant upgrade (local target)	88%	54.96%	67.07%	68.87%
28 Day Fast Diagnosis	75%	69.16%	71.42%	
Emergency Department - total time in ED	95%	76.51%	81.55%	85.56%
Referral to treatment - incomplete pathways	92%	59.85%	68.42%	65.26%
Cancelled operations on the day of surgery as a % of electives	<0.8%	0.29%	0.43%	0.34%
Mixed sex accommodation breaches	0	0	0	0
Diagnostic tests longer than 6 weeks	<1%	45.93%	31.76%	45.27%

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Performance against other national and local requirements

There are a number of other quality indicators that the Trust uses to monitor and measure performance. Some of these are based on the National Quality Requirements and others are more locally derived and are more relevant to the city of Wolverhampton and the wider population we serve.

Like the National Standards, these metrics are also reported to the Trust Board alongside a range of other organisational efficiency metrics. This gives the Board an opportunity to have a wide-ranging overview of performance covering a number of areas.

Indicator	Target 2022/23	Performance 2022/23	Performance 2021/22	Performance 2020/21
Clostridium Difficile	58	72	57	46
MRSA	0	2	1	2
Referral to treatment - no one waiting longer than 52 weeks	0	3,653	1,697	2,404
Trolley waits in A&E longer than 12 hours	0		523	169
ED waits >12 hours	<2%	7.82%		
VTE Risk Assessment	95%		94.84%	93.57%
Duty of Candour - failure to notify the relevant person of a suspected or actual harm	0	0	0	1
Stroke - 90% of time spent on stroke ward	80%	88.99%	83.30%	91.88%
Maternity - bookings by 12 weeks 6 days	>90%	86.90%	89.60%	92.00%
Maternity - breast feeding initiated	>64%	77.80%	75.90%	71.50%



Engagement in developing the quality account

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Prior to the publication of the 2022/23 Quality Account, we have shared this document with the following:

- Our Trust Board, including combination of Non-Executive and Executive Directors
- City of Wolverhampton Council Health Scrutiny Panel
- Wolverhampton Clinical Commissioning Group
- Trust staff
- Healthwatch

In 2023/24 we will continue to share our progress against the quality improvement priorities and continue to work closely with the users of our services to improve the overall quality of care offered.

We would like to thank all the patients, community representatives for their feedback and members of staff who gave their time to help us select our priorities and ensure that the document is clear and accessible.



Statement from Black Country Integrated Care Board (BCICB)

Black Country Integrated Care Board (BCICB) statement on The Royal Wolverhampton NHS Trust (RWT) Quality Account 2022/2023

BCICB welcomes the opportunity to review and provide the statement for The Royal Wolverhampton NHS Trust Quality Account for 2022/23. RWT Quality Account is materially accurate and in line with the information presented to the ICB via contractual/quality monitoring and quality visits. The ICB recognises that 2022/2023 has continued to be a challenging year for RWT to deliver services with unprecedented demands outstripping capacity.

We genuinely recognise the Trust's efforts to maintain quality whilst acknowledging the uncertainties and the challenges faced throughout the year. The ICB would like to thank all staff and volunteers working at RWT for their commitment, remaining resilient throughout these challenging times, ensuring patient care is safe and of the highest standard.

We recognise and support the strategic collaboration between Walsall Healthcare NHS Trust and The Royal Wolverhampton NHS Trust, which is a positive step for a system working collaboratively at scale to benefit local populations by improving efficiency, sustainability, and quality of care.

We are proud of our effective working relationship with the Trust, and we recognise the Trust's achievements against the quality priorities and their individual and collective engagement with the commissioners.

The ICB are pleased to note that Quality remains a top priority for the Trust, focusing on three main areas: Patient Safety, Clinical Effectiveness and Patient Experience. We will continually monitor trust progress against the delivery of the quality priorities and look forward to seeing the positive impact and outcomes.

The ICB would particularly like to note the following key achievements for 2022/2023:

- Incremental improvement in compliance with "patient observations on time", an essential safety metric.
- Trust has embedded a process where the Trust is aware of all mental health activity

within the organisation. With this oversight, assurance has been gained that all patients have access to the correct legal process supporting MHA.

- Initiatives taken by the Trust to improve the work/life balance of their nursing staff by offering flexible working will enhance the organisation's attractiveness to new staff and retention of current staff. In addition, we note that the Trust also relaunched the internal transfer programme with good results.
- Implementation of peer-led pastoral programme - leads for academic, socio-cultural, and early support aiding our international fellows with an easier transition into working in the NHS and adjusting to life in the UK.
- International nurse retention at the Trust was positive, and for 85 staff recruited during 2020, 85-90% remained at the Trust.
- Trust achieved 100% Care Certification for healthcare support workers (HCSWs).
- Trust has been successfully able to eliminate 104-week waits.
- Implementation of safe care and safe staffing policy to fully realise the benefits of a responsive, acuity-led staffing allocation and the governance of red flag alerts and reports daily.
- It is commendable that the Trust continues to be a strong performer concerning SHMI, and the values are continued to be reported within the 'as expected' range and below the national average.
- Trust participation in 93% of national clinical audits and 100% of the national confidential enquiries in which it was eligible to participate.
- The ICB recognises that the Trust has worked collaboratively with system partners on services for patients who present to the Trust with significant mental health challenges alongside their physical ill health, and we are aware that this work is continuing.



Engagement

Whilst we recognise these achievements, we would value delivery of sustainable improvements in the following areas for 2023/2024:

- We recognise that the Trust is currently working on a robust C.Diff action plan with continued efforts to improve clinical and IP practices. However, we expect to see a reduction in hospital-onset C.Diff infection cases for the year ahead.
- The Trust's intention to continue improving VTE risk assessment compliance is noted, and we look forward to seeing a further improved picture of VTE compliance and the positive impact of this work over the coming year.
- Members of the system elective and cancer board, we expect the Trust to work with our system partners to achieve three key performance deliverables and metrics set nationally as elective care priorities for 2023/24, which means:
 - Virtually eliminate waits of >65 weeks by March 2024.
 - Continue to reduce the number of cancer patients waiting over 62 days.
 - Meet the 75% cancer FDS ambition by March 2024.

ICB acknowledges the impact that COVID-19 has had on Cancer, Diagnostic Performance and RTT waiting times. We recognise the Trust has a robust cancer harm review process in place, but we expect the Trust to conduct harm reviews for any patient where these delays have impacted clinical outcomes or resulted in patient harm. In addition, we expect that any learning identified from these harm reviews is shared across the organisation and wider system.

- We expect to see some further improvements in the trust staff survey and build on current staff survey results, which will allow fresh ideas, team building, cooperation, and positivity and make the Trust a place where the staff wants to work and attracts others for future employment.
- We look forward to seeing the Trust approach to the transition to PSIRF, which will replace the existing National Serious Incident Framework (2015) by Autumn 2023.

The ICB confirms that the Annual Quality Account information accurately reflects the Trust's performance for 2022/2023. It is presented in the format required and contains information that accurately represents the Trust's quality profile and reflects quality activity and aspirations across the organisation for the forthcoming year. We commend the Trust on its commitment to working with the ICB collaboratively and transparently in 2022/2023 and look forward to working in collaboration and partnership over the next year.

Sally Roberts
Chief Nursing Officer/Deputy Chief Executive Officer
Black Country Integrated Care Board
June 2023



Statement from City of Wolverhampton Council Health Scrutiny Panel

City of Wolverhampton Council - Health Scrutiny Panel. Statement on The Royal Wolverhampton NHS Trust, Quality Accounts 2022-2023

We join in with the Trust celebrating 75 years of the NHS and extend our thanks to the staff, without whose efforts and resilience, we would not have the healthcare service we have today.

We are pleased the Trust is reducing cancer treatment waiting times for patients and endorse their commitment to further waiting time reductions, however, we note this has been raised previously by the Health Scrutiny Panel and we will continue to scrutinise this area to help ensure reductions continue. The creation of a Health Inequalities Steering Group is a positive step towards achieving equity in healthcare for our local population. We have noted the Trust is producing educational packages for staff to increase knowledge about health inequality and we will seek to bring this to our Panel in a timely fashion.

We note that Infection Prevention remains a challenge, with increasing cases above trajectory of various bacteria forms in Trust sites; we would like to see a stronger focus in staff training, site deep cleans and adherence to Infection Prevention & Outbreak Management protocols.

We support the Trust's goal in reducing adult general and acute bed occupancy to 92% and recognise that the digital wards plan should contribute to this aim; this will however require valuable Scrutiny to ensure that the roll out of this works for all patients and provides them with the same necessary and valuable care they would receive prior to the digital roll out. Ensuring this is done in a manner which is effective and sensitive to the needs of patients is paramount.

Health Scrutiny would like to see improvements made to public parking on New Cross Hospital grounds so better accessibility for patients and relatives can be provided. Space availability and ease of payment methods considering all people would significantly contribute to an improved service for our citizens.

We support the Trusts commitment to and increasing focus on enabling employment pathways and learning for its staff, as well as its volunteer placement schemes. Staff retention is a key area in maintaining a quality service for the population. We are pleased to read International Nurse Retention rates remain high since 2020 with a reported 85-90 percent staying, this is a testament to the internationalism of the NHS and the principles of universal healthcare, providing valuable skills and knowledge to specialists.

Cllr Susan Roberts MBE - Chair of Health Scrutiny Panel
Chair of Health Scrutiny Panel
City of Wolverhampton Council,
Civic Centre, St Peter's Square
Wolverhampton
WV1 1SH
23 June 2023



Statement of director responsibilities

Statement of director responsibilities in respect of the Quality Account 2022/23

In preparing the quality report, directors are required to take steps to satisfy themselves that:

- the content of the quality report meets the requirements set out in the annual reporting manual and supporting guidance Detailed requirements for quality reports.
- the content of the quality report is not inconsistent with internal and external sources of information including:
 - Board minutes and papers for the period April 2022 to March 2023
 - Papers relating to quality reported to the board over the period April 2022 to March 2023
 - Feedback from commissioners dated June 2023
 - Feedback from overview and scrutiny committee dated 23 June 2023
 - The 2022 national staff survey
- the quality report presents a balanced picture of the trust's performance over the period covered

the performance information reported in the quality report is reliable and accurate

there are proper internal controls over the collection and reporting of the measures of performance included in the quality report, and these controls are subject to review to confirm that they are working effectively in practice

the data underpinning the measures of performance reported in the quality report is robust and reliable, conforms to specified data quality standards and prescribed definitions, is subject to appropriate scrutiny and review

the quality report has been prepared in accordance with NHS Improvement's annual reporting manual and supporting guidance (which incorporates the quality accounts regulations) as well as the standards to support data quality for the preparation of the quality report.

The directors confirm to the best of their knowledge and belief they have complied with the above requirements in preparing the quality report.

By order of the board

Professor David Loughton, CBE
Chief Executive
30 June 2023

Sir David Nicholson, CBE
Chairman
30 June 2023



Statement of Limited Assurance from the Independent Auditors

NHS England/Improvement have confirmed in the Quality Accounts requirements for 2022/23 that there is no national requirement for NHS Trusts or NHS Foundation Trusts to obtain external auditor assurance on the Quality Account.



Appendix 1 - Local clinical audits reviewed by the Trust in 2022/23 with actions intended to improve the quality of healthcare

Local Audit Title	Actions to be taken by RWT
Audit of Calibration Compliance at West Park (20/21)	Raise awareness with staff and address documentation errors with calibration sheets
Audit of Compliance with Visual Reinforcement Audiometry Guidelines and procedures (22/23)	Reminder to clinical staff re documentation and cross checks of journal entries.
Evaluation on the effectiveness of BAHA service (22/23)	Provide training to improve and ensure the process that patients are seen in MDT and then referred for surgery, plus need to fully complete post-fitting questionnaires.
Audit of New Paediatric Hearing Therapy (PHT) Appointments (Tinnitus/hyperacusis) (22/23)	Communication to PHT team and relaxation therapist to request that the specific leaflet handed out is recorded. Develop a new hot key for appointments to improve continuity of care when the child is seen by other team members.
Melatonin ABR (22/23)	MDT meetings introduced and current pathway altered for difficult to assess patients (complex needs patients)
Audit of Completed ABRs (Re-audit) (22/23)	Reminders to staff to: Ensure that Peer review requirements are added to the system and reviewed within timeframes. Check flags, parameters, risks, codes and outcomes and update accordingly. Give appropriate literature at appointments.
Audit of Paediatric Hearing Aid fittings and Reviews 2022 (22/23)	Consider options to use hotkeys as reminder to record when REM is under target at high frequencies. Reminder to all staff to check new parameters and update on each visit.
Use of PPI with DAPT in patients with acute coronary syndrome - (Re-Audit) 2022/23	New ACS ward guideline to improve prescribing. Potential area to create posters for the cardiology ward for cardiology SHOs on-call especially during clerking. Education re ACS treatment to the non-cardiology trained juniors/ new juniors rotating on cardiology regarding order-sets.
LocSSIP- Chest Drains (2020/21 DATA) 2022/23	Minor non-compliance so reminders to staff re importance of checklist completion.
Audit of diabetic patients having operations in June 2021 (covering New Cross and Cannock) 2021/22 (2022/2023)	Theatre list to document diabetes and allocate patient first on list unless other patient takes clinical priority.



Local Audit Title	Actions to be taken by RWT
Improving communication between physicians and patients' relatives in the Intensive Care Unit (ICU) 2022/23	Informing doctors and ACCPs in ICU to update their patients' relatives at least twice a week.
Posters on ICU and plan to include relative updates as part of the ward round plan.	
Arterial Line 2022/23	Disseminate results and recirculate sticker information. Designated drawer for all compulsory stickers. All stickers mentioned in Doctors-intraining induction pack. Checking of relevant prescriptions on ward rounds. Education for new nurses regarding site monitoring. Propose flush-bag change to be 48 hourly.
A Quality Improvement Project to understudy the difficult intravenous access service provided by the Directorate of Intensive and Critical Care 2022/2023 (Part 1)	Organisational training in USS guided IV cannulation for hospital doctors, and designing a protocol for borrowing USS machines from theatre.
HTM01-05 - Infection Prevention (21/22)	Business case for refurbishment is awaiting approval at the time of this audit. Temporary repairs in meantime and risk managed via risk register.
RADQA reaudit (21/22)	In-house training of staff in new grading guidance and introduction of RINN holders, create new log book and risk assess the likely doses received and liaise with radiation advisor.
RADQA reaudit (22/23)	In-house training of staff and introduction of RINN holders
HTM01-05 - Infection Prevention Reaudit (22/23)	Refurbishment planned. On Directorate risk register.
Improving the surgical ward round: a quality improvement project	Creation of ward round proforma and education of the team via clinical governance meeting.
Do we follow GMC guidelines for intimate examination and chaperone use? (22/23)	Posters in surgical ward areas about guidelines for intimate examination, consent and chaperoning and exploring introducing a stamp to meet the RCS standards of documentation on intimate examination, consent and chaperoning.
Evaluation of General surgical Operations Notes according to the Royal college Guideline and Good Surgical Practice (22/23)	Development of a new proforma for operation notes, consideration of including general standards for documentation in the induction for new starters.



Local Audit Title	Actions to be taken by RWT
National Audit - Project assessing the Management of Endometrial Hyperplasia - pre and post 2016 Green Top Guideline (2021/22) 2022/2023	<p>Developing Trust guideline with clear algorithm for the management of EH and AEH.</p> <p>Explore feasibility of developing database and recall system to maintain timeline for biopsy follow up.</p> <p>AEH should be discussed with MDT / ? MRI before medical treatment.</p> <p>Adopting holistic approach in the management of EH and addressing high BMI and weight reduction measures.</p>
Audit of ovarian cancer investigation and management over a 5 year time period (2022/2023)	<p>Documentation of RMI at initial review</p> <p>Recommend BRCA testing and document as routine at initial oncology review.</p>
Retrospective review of management of Endometrial Hyperplasia (2022/2023)	<p>Developing Trust guideline with clear algorithm for the management of EH and AEH</p> <p>Explore feasibility of developing database and recall system to maintain timeline for biopsy follow up.</p> <p>AEH should be discussed with MDT / ? MRI before medical treatment.</p> <p>Adopting holistic approach in the management of EH and addressing high BMI and weight reduction measures.</p>
QIP- E-Discharge in Gynae Oncology (2022/2023)	<p>Raise awareness via discussion at Gynae Care Group re importance of specifying follow-up, duration of hospital supplied medications and whether the patient had a procedure/diagnosis/ plan discussed with them during their inpatient stay.</p>
QIP- Post Coital Bleeding (2022/2023)	<p>This project delivered further teaching and learning to junior doctors around the subject.</p>
Improving the safety and effectiveness of the gynaecology emergency handover Audit (2022/2023)	<p>Improvements to handover including ensuring all relevant staff attend, that it is completed face to face, covering all aspects of care and takes place at a specific location.</p>
QIP- Gynaecology post op Ward Round Audit (to review attendance to see elective gynaecology patients daily) (2022/2023)	<p>Develop a simple department guideline for post-op rounds and develop and expand on standards.</p> <p>Emphasise/feedback on detailed documentation.</p> <p>Survey - record of discussions with nurse in charge after rounds.</p>
Minimal access rate for patients under the age of 50 undergoing hysterectomy for benign reasons Service Evaluation (2022/2023)	<p>Plan to offer women minimal access hysterectomy i.e., either vaginal or laparoscopic route wherever feasible.</p> <p>Training clinicians to use morcellation technique to perform hysterectomy of a large fibroid uterus laparoscopically.</p> <p>Encouraging consultants to refer patients to their colleagues if they have surgical skills to perform the procedure through minimal access route.</p>



Local Audit Title	Actions to be taken by RWT
Re-audit Antibiotic prophylaxis in daycase dentoalveolar surgery (22/23)	Update induction pack and produce poster for anaesthetic room.
An Audit of Time to CEPOD Theatre for Patients admitted under OMFS with Acute Cervicofacial Infections. (22/23)	Review of CEPOD theatre lists to aim to reduce the time to theatre and reduce any delays, leading to reduced length of stay and improved patient care.
Assessing the effectiveness of a new analgesia protocol on re-presentations amongst paediatric post-tonsillectomy patients (22/23)	<p>Ensure clear communication and documentation between surgical team, anaesthetic team, nursing staff and parents regarding optimal use of analgesia prior to and post-tonsillectomy.</p> <p>Ensure adherence to prescription using proposed proforma for all components of the analgesia protocol.</p> <p>Encourage use of tonsillectomy pain management home diary to ensure optimal analgesia is delivered.</p>
A quality improvement project for post-operative pain management of osteotomy patients (22/23)	Implementing a standardised post-operative pain management protocol for inpatient and outpatient medication and to complete a post-operative pain review at the follow up appointment.
Black Country Head and Neck Cancer Pathway - an Audit and a Service Evaluation (22/23)	Further discussion of findings at the head and neck cancer MDT meeting.
Thyroidectomy Audit (22/23)	To improve clinician education on BAETS guidelines relating to the peri-operative care of patients undergoing Thyroidectomy.
ENT Handover sheet audit (22/23)	The audit has reminded clinicians on safe and adequate handover and reinforced the need for a more robust system which will be introduced with the rolling out of Careflow Connect.
Compliance with glandular fever screening in patients admitted with acute tonsillitis (22/23)	Further data is being collected on differential white cell count. If this is predictive of acute glandular fever infection, the Trust guidelines will be reviewed so that glandular fever screening should be considered but is not mandatory.
Operation Notes Audit (22/23)	Clinicians were reminded of the Royal College of Surgeons "Good Surgical Practice" guidelines for documentation of operation notes via presentation of the audit results and email circulation.
Hypoglycemia QIP	Ensure that haemolysed samples are repeated and send urine sample as per guidance
Low Cord PH Audit (2022/2023)	Education of junior doctors and midwives.
NICE CG129 & QS46 Multiple Pregnancy Audit- Caesarean Sections (2021/2022) 2022/2023	Good compliance with NICE guidance - improvement actions around documentation on mode of delivery (MOD) discussion.



Appendices

Local Audit Title	Actions to be taken by RWT
Saving Babies Lives Element 4- Intrapartum care for healthy women and babies-CTG Compliance (2022/2023)	Consultant fetal monitoring lead and fetal monitoring midwife will ensure all medical and new midwifery staff have been allocated to a fetal monitoring study day and reallocate non-attenders.
Major Obstetric Haemorrhage (MOH)/ Post partum haemorrhage (PPH) (primary and secondary) Audit (2021/2022) 2022/2023	Improve documentation from theatre cases / recovery area, risk discussion in the briefing of elective cases and prophylactic measures. Low threshold for use of TXA. Encourage PPH proformas
Consent in Obstetrics Audit (2021/2022) 2022/2023	To introduce standardised procedure specific pre-printed consent forms with risks outlined as per RCOG advice. Antenatal counselling: to provide information about operative vaginal delivery to women on BadgerNet app ,so the women can go through it and get background information about instrumental delivery in the antenatal period. Intrapartum Counselling: to develop patient information sheets/infographics in partnership with patients and midwifery staff to be available for intrapartum counselling of women on labour ward.
Saving Babies Lives: Element 3- Reduced Fetal Movement Monitoring Audit (2022/2023) 2022/2023	Ensure awareness amongst all maternity staff including midwives and doctors regarding the importance of RFM at the induction. Ensuring all maternity/medical staff have recorded given/discussed the Tommy's leaflet recorded on the BadgerNet. Ensure that the RFM checklist is completed fully prior to discharge home.
NG25 and Saving Babies Lives Element 5: Preterm Labour and Birth (to include data on MSU) (2022/2023)	Learning for staff re: UTI positive growth must be treated according to the culture and sensitivity in a timely fashion. Good practice to document the name of the antibiotic prescribed. Results of MSU must be reviewed and filed in the system by all doctors as evidence that the results were acknowledged and acted accordingly. A repeat MSU must be sent after completing treatment to confirm the clearance of infection
Saving Babies Lives: Element 2 - Risk assessment, prevention and surveillance of pregnancies at risk of fetal growth restriction (FGR) (2022/2023) - incorporating requirement of CNST quarter audit of a minimum of 10 cases delivered <3rd centile after 37*6 weeks	Include data on SBL dashboard Raise awareness amongst staff to update each patient's risk assessment following review.



Local Audit Title	Actions to be taken by RWT
Ockenden Report Audit: Intrapartum Risk Assessment Re-Audit (2022/2023)	Reminder to all staff by using visual aid with an additional column on Induction unit and Delivery Suite white board ensuring continuous intrapartum RA is being done. Highlight need for risk assessment during mandatory EFM training.
Ockenden Audit: Audit of Handover process on Delivery Suite (2022/2023)	Re-audit results demonstrates considerable improvement in hand over-process. Increase awareness of handover times and the hospital guideline.
Ockenden Audit: Audit of Maternity Inpatient Review by Consultants (2022/2023)	Consultant buddy teams to have rota for ward cover Reg/SHOs have been clustered into teams to improve ward cover. More direct contact with registrars during week through texts / emails to discuss cover for the week. Use of blue spots for visual reminder of who hasn't been seen. Agreed escalation plan for patients not seen.
Saving Babies Lives Element 4- CNST- 4.2 - Are all staff who care for women in labour required to undertake annual training and competency assessment on and use of auscultation every 12 months? February 22 (2022/2023)	Improve documentation of reasons why maternal pulse or auscultation may be missed or delayed.
Saving Babies Lives: Element 1- Reducing smoking in pregnancy (2022/2023)	Outcomes are above threshold required but not yet at 100%. Ongoing work aided by the Smoking Cessation Team alongside continued efforts of midwifery and support staff at each stage of the woman's journey.
MLU audit 3rd/4thDegree Tears Audit (2022/2023)	Ensuring documentation is more detailed in birth position, particularly in water Ensuring new midwives to are supported at time of birth (where possible) for a number of births before supporting women independently
Saving Babies Lives Element 4- CNST- 4.2 - Re-Audit- Are all staff who care for women in labour required to undertake annual training and competency assessment on and use of auscultation every 12 months? February 2023 (2022/2023)	Staff learning around need to document reason why auscultations are delayed/omitted, also to ensure that maternal pulse is palpated and documented hourly in 1st stage and quarter hourly in 2nd. Ensure time on BadgerNet is adjusted to reflect time of auscultation rather than time of entry to avoid appearance of delayed auscultation.
CNST Safety Action 4: Roles & Responsibilities of the Obstetric Consultant Compliance Monitoring (2022/2023)	Continue to follow the Consultant attendance monitoring process.
Local ECV Service Evaluation (2022/2023)	Updating ECV leaflet in line with RCOG leaflet
Efficacy of WHO Surgical Safety Checklist for Cataract Surgery 2022/23	Set local guidelines for documentation in biometry sheet and patient notes.



Appendices

Local Audit Title	Actions to be taken by RWT
'Going green' in Ophthalmic theatres (22/23)	A table has been created with the help of the waste management team to raise awareness for theatre staff of which bags different waste gets placed in.
Assessment and Management of Paediatric Supracondylar Humeral Fractures at New Cross Hospital, Wolverhampton (2022/2023)	Proforma for easy documentation of assessments (pre-op and post-op). Updated operation note template. Discharging clinician to ensure all patients have a documented post-op assessment before discharge. Continue the excellent compliance with x-ray post op, long term follow up and wires removal.
Door-to-clexane time in trauma patients (2022/2023)	Changes and improvement around clexane plan including on electronic prescribing system, clerking and handover documentation. Reviewing ED and ward doctor involvement.
Effect of pre-operative dexamethasone on post op pain relief, PONV and length of stay in lower limb arthroplasty patients (2021/2022) 2022/2023	Results inconclusive due to small numbers, but having an agreed recommendation and protocol for the Trust may help to standardize as per best practice.
Re-audit of compliance with surgeon operated mini c-arm standards (2022/2023)	Electronic form - prompts user to complete all pertinent sections. Negates issue of missing radiology request forms and allows for better analysis. Standardised font makes information more legible.
VTE Re-audit (2022/2023)	Document diagnosis clearly, including the anatomical side of pathology. Whilst patients may already be on VTE prophylaxis when presenting for cast modification, indicate this clearly - this is also an opportunity to catch any initially missed cases. Document weight bearing status. Emphasise the importance of doing and documenting a VTE risk assessment on the plaster room sheet.
Assessment of the workload assigned to General Practices within one month of discharge post elective orthopaedic surgery (2022/2023)	Clinic for clip removal +/- BP check / blood samples / wound review. Proforma given to patient to give to GP i.e., with BP documented. GP can then make further decisions about medications etc. GP can also action results of blood tests in community.
Bone bank transportation- from consent to green freezer re-audit (2022/2023)	Improvements around flagging patients who are rescheduled to have fresh set of pre-op bloods, improve documentation where bone graft not taken for donation, measures to minimize contamination of samples, improved labelling and documentation of entry time to freezer.
Safe use of Intra-operative tourniquets in Trauma and Orthopaedics (2022/2023)	Improvements in documentation of exsanguination, padding and method of isolation, compliance with tourniquet pressure. Raising awareness of guidance via posters in theatres.



Local Audit Title	Actions to be taken by RWT
Emergency Spinal MRI Services QIP(2022/2023)	Aiming for improved access to MRI services for cauda equina syndrome, and implementing a local pathway for cases of back pain with suspected cauda equina syndrome.
Re-Audit of Documentation in Medical Records-consent form 4 for neck of femer patients (2022/2023)	Include next of kin discussion in medical clerking checklist Involve NOF nurses Prompt underneath the AMTS
Post-operative urinary retention (POUR) in lower limb arthroplasty patients (2022/2023)	Improve compliance with bladder scan protocol
Outcomes of Platelet Rich Plasma Injections In Early arthritis of The Knee. Comparison between a single injection Vs Course of Three Injections	Consider establishing PRP clinics once a month to improve theatre efficiency.
QIP: Improving Discharge Summaries for Arthroscopic Procedures (2022/2023)	Poster will be included in induction pack for junior doctors. Awareness raised for discharge summaries of all day case procedures.
An audit of the investigation and management of shoulder dislocation in New Cross Hospital against BESS guidelines (2022/2023)	Improved awareness via presentation of audit findings and posters in fracture clinic. Gatekeeping of slots on acute shoulder instability clinic lists.
Re-Audit of Compliance of Antimicrobial prophylaxis in Trauma and Orthopedic surgery (2022/2023)	Learning incorporated into junior doctor induction and nurse teaching around antibiotics to be given to maintain optimal plasma level for 24 hours, per Trust guidelines.
NICE-related audit: Review of the outcomes for patients with fast track referrals for possible testicular cancer (2022/2023)	Results highlighted the importance of reviewing the ultrasound scan before fast-track referrals. Considering whether primary care could access USS results prior to fast-track referrals. Two fast-track USS slots to be allocated every week.
QIP: Day Case TURBT Project (2022/2023)	Development of TURBT stickers to distinguish day case suitability easily and drive decisions re suitability at time of booking, aiming to reduce default position of overnight stay.
CEPOP Theatre Utilisation pre and post merger of Walsall and New Cross Emergency Urology (2022/2023)	Continued monitoring of CEPOD use and if necessary to procure extra radiographer support in theatre.
Group & Save Samples for Robotic-Assisted Laparoscopic Prostatectomy Service Evaluation (2022/2023)	Routine pre-operative G&S samples is likely unnecessary and stopping this may lead to increased efficiency and sustainability. To be sampled and cross-matched on a case-by-case basis.



Appendices

How to give comments

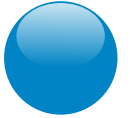
We welcome your feedback on this Quality Account and any suggestions you may have for future reports. Please contact us as indicated below:

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English

If you require this document in an alternative format e.g., larger print, different language etc., please inform one of the healthcare staff.

Punjabi

ਜੇ ਤੁਹਾਨੂੰ ਇਹ ਦਸਤਾਵੇਜ਼ ਹੋਰ ਰੂਪ ਉਦਾਹਰਨ ਵੱਜੋਂ ਵੱਡੀ ਛਪਾਈ, ਵੱਖਰੀ ਭਾਸ਼ਾ ਆਦਿ ਵਿੱਚ ਚਾਹੀਦਾ ਹੋਵੇ, ਤਾਂ ਕਿਰਪਾ ਕਰਕੇ ਕਿਸੇ ਸਿਹਤਸੰਭਾਲ ਕਰਮਚਾਰੀ ਨੂੰ ਬੇਨਤੀ ਕਰੋ।

Polish

Aby uzyskać niniejszy dokument w innym języku lub formie, np. pisany dużą czcionką, itp., prosimy skontaktować się z przedstawicielem personelu medycznego.

Russian

Если данный документ требуется Вам в альтернативном формате, например крупным шрифтом, на другом языке и т.п., просьба сообщить об этом одному из сотрудников здравоохранения.

Lithuanian

Jeį pageidaujate šį dokumentą gauti kitu formatu, pvz., padidintu šriftu, išverstą į kitą kalbą ir t. t., praneškite apie tai sveikatos priežiūros darbuotojui.

Kurdish

ئهگه ئهه بههنگهنامهیه به شهوازیکه دیکه دمخوازیت بو نمونه چاپی گهرهتر، زمانیکه دیکه هتهه تکایه یهکێک له کارمهندانی سهه پرشهتی تههروهستی ناگاداره بکههوهه.



Quality Account 2022-2023

Health Scrutiny Panel – 21st September 2023

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The Royal Wolverhampton
NHS Trust

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Safe & Effective | Kind & Caring | Exceeding Expectation

Introduction

- The Royal Wolverhampton NHS Trust (RWT) welcomes the opportunity to be transparent and able to demonstrate how we are performing, considering the views of service users, carers, staff and the public. We use this information to make decisions about our services and to identify areas for improvement.
- This Quality Account provides information on progress against the 2022/23 agreed key priorities, which include patient safety, clinical effectiveness and patient experience, and sets out priorities and plans for the upcoming year.
- During 2022/23, The Trust continued to further progress its strategic collaboration with Walsall Healthcare NHS Trust (WHT) and as part of the wider Black Country acute provider collaboration arrangements, with the aim of ensuring that our patients and the diverse communities we serve, experience the best possible care, and are supported to achieve improved health outcomes.
- To set out the strategic vision for RWT and WHT, a joint Trust strategy was launched. The strategy focuses on 4 Cs, which include: **Care** – excel in the delivery of care; **Colleagues** – support our colleagues; **Collaboration** – effective collaboration; **Communities** – improve the health and wellbeing of our communities.



Key points

- Despite the challenges associated with the Covid-19 pandemic and its wider reaching and long-term impact, the Trust has either achieved or made good progress with the objectives set out in the 2022/23 Quality Account.
- Page 326 The Quality Account objectives for 2023/24 have been set based on the priorities of the joint Trust strategy and key enabling strategies such as, the Quality and Safety Enabling Strategy and Patient Experience Enabling Strategy.
- We recognise, and have plans in place, to drive further improvements in the critical areas such as, Infection Prevention, diagnostics, cancer performance, Referral to Treatment, improvements in staff satisfaction and retention.
- The Quality Account will be presented to Annual General Meeting in the autumn of 2023.



Quality Priorities - Looking Back 2022/23



The Royal Wolverhampton
NHS Trust

Patient Safety

PS 1 - Covid-19 – minimising impact

PS2 - Reduce harm by assessing, recognising, and responding to minimise patient deterioration

PS3 - Promote equality out of outcomes by routinely reporting user outcomes (reducing health inequalities)

PS 4 - We will aim to improve mental health care and treatment for all ages

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PS 5 - We aim to review our services, working with our partners to deliver a flexible service to meet the needs of mental health patients

PS 6 - As a registered provider of mental health, we aim to adhere to the legislation within the Mental Health Act 1983 and to ensure all patients are treated in a person-centred way

PS 7 - We aim to support and deliver excellent care for some of our most vulnerable patients and their carers, including children and those living with a learning disability, mental health issues or dementia

PS 8 - We aim to deliver parity of esteem by having embedded mental health services and skills across the workforce

Clinical Effectiveness

CE 1 - (Nurses and Midwives) - To ensure we improve and continue to have an appropriate workforce to support clinical effectiveness, patient safety and a positive patient experience

CE 1 - (AHPs) - To ensure we improve and continue to have an appropriate workforce to support clinical effectiveness, patient safety and a positive patient experience

CE 1 - (Medical workforce) - To ensure we improve and continue to have an appropriate workforce to support clinical effectiveness, patient safety and a positive patient experience

CE 2 - To continue with our multi-professional Clinical Services Framework (CSF) to further enhance our ability to work as integrated teams and support our patient needs

Patient Experience

PE 1 - To maintain and improve patient engagement and to continue to place patient engagement and involvement at the heart of decision making, driving forward improvements in delivery of care

PE 2 - To continue to improve complaints responses to patients and ensure learning is identified and areas are provided with e-learning

PE 3 - To build on the success of volunteer services

PE 4 - Patient access waiting times: A focus on waiting times to improve 62-day cancer performance, a reduction in long waiting patients (+78 weeks) and elimination of 104 week waits

Quality Priorities – Patient Safety



Looking forward 2023/24

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Priority 1 - Patient Safety	
<p>Embed a culture of learning and continuous improvement at all levels of the organisation.</p> <p>Priority area - Patient safety</p>	<p>Key actions we will take:</p> <ul style="list-style-type: none"> • Transition to the Patient Safety Incident Response Framework (PSIRF) • Transition to Learn from Patient Safety Events (LfPSE) • Increase uptake of Level 2 syllabus training <p>The aim for 2023/24</p> <ul style="list-style-type: none"> • Transition to PSIRF achieved by the national deadline • 100% of incidents uploaded to LfPSE by the national deadline
<p>Deliver safe and responsive urgent and emergency care in the community and in hospital.</p> <p>Priority area - Urgent and emergency care and patient flow</p>	<p>Key actions we will take:</p> <ul style="list-style-type: none"> • Working with partners from across the system, we will support the flow of patients through UEC, by: <ul style="list-style-type: none"> • expanding and maintaining the use of same day emergency care (SDEC) services to avoid unnecessary hospital stays • expanding virtual wards, allowing people to be safely monitored from the comfort of their own homes • working with partners to speed up discharge from hospital and reduce the number of patients without criteria to reside <p>The aim for 2023/24</p> <ul style="list-style-type: none"> • Year on year improvement in the percentage of patients seen within four hours in A&E • Reduce adult general and acute bed occupancy to 92% • Consistently meet the 70% two-hour urgent community response time
<p>Embed a culture of learning and continuous improvement at all levels of the organisation.</p> <p>Priority area - Quality improvement</p>	<p>Key actions we will take:</p> <ul style="list-style-type: none"> • Produce a gap analysis on how both trusts (RWT/WHT) rank against the four components of a quality management system (quality planning, quality control, quality improvement and quality assurance), and review how we triangulate data to understand priorities • All members of divisional and care group/directorate leadership teams to attend one day quality service improvement and redesign fundamentals (sessions scheduled from January 2023) • Year-on-year roll-out plan for QI huddle boards across both trusts to targeted areas e.g., low evidence of improvement work, non-clinical areas <p>The aim for 2023/24</p> <ul style="list-style-type: none"> • Completed gap analysis by end of 2023/24 • Increase in the number of staff trained following triumvirate training • Introduction of 10 QI huddle boards per site/annum



Quality Priorities – Clinical Effectiveness

Looking forward 2023/24



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Priority 2 - Clinical Effectiveness	
<p>The right workforce with the right skills, in the right place at the right time</p> <p>Priority area - Our people</p>	<p>Key actions we will take:</p> <ul style="list-style-type: none"> Recruit and retain staff using targeted interventions for different career stages Improve retention using bundles of recommended high impact actions Develop and deliver the workforce required to deliver multidisciplinary care closer to home, including supporting the rollout of virtual wards and discharge to assess models <p>The aim for 2023/24</p> <ul style="list-style-type: none"> To improve staff turnover by the end of 2023/24
<p>Prioritise the treatment of cancer patients, focusing on improving outcomes for those diagnosed with the disease</p> <p>Priority area - Cancer treatment</p>	<p>Key actions we will take:</p> <ul style="list-style-type: none"> Maintain focus on operational performance, prioritising capacity for cancer patients to support the reduction in patients waiting over 62 days Increase and prioritise diagnostic and treatment capacity for suspected cancer, including prioritising new community diagnostic centre capacity Implement priority pathway changes for lower gastrointestinal (GI), skin, and prostate cancer <p>The aim for 2023/24</p> <ul style="list-style-type: none"> Reduction in the number of patients waiting more than 62 days for treatment, and meeting the cancer faster diagnosis standard by March 2024 75% of patients who have been urgently referred by their GP for suspected cancer are diagnosed, or have cancer ruled out, within 28 days
<p>Deliver the priorities of the National Elective Care Strategy</p> <p>Priority area - National Elective Care Strategy</p>	<p>Key actions we will take.</p> <ul style="list-style-type: none"> Deliver an increase in capacity through the community diagnostic centre and theatre expansion programme Transform the delivery of outpatient services with the aim of avoiding unnecessary travel and stress for patients Increase productivity using the GIRFT (Getting it Right First Time) programme and improving theatre productivity <p>The aim for 2023/24</p> <ul style="list-style-type: none"> Eliminate waits of over 65 weeks by the end of 2023/24 Meet the 85% theatre utilisation expectation
<p>Review of GIRFTⁱ and Model health system dataⁱⁱ</p>	<p>Key actions we will take.</p> <ul style="list-style-type: none"> Review model health system and Getting It Right First Time (GIRFT) data to guide relevant aspects of activity, quality, and safety

i Getting It Right First Time (GIRFT) is a national programme designed to improve the treatment and care of patients through in-depth review of services, benchmarking, and presenting a data-driven evidence base to support change.

ii The Model Health System is a data-driven improvement tool that enables NHS health systems and trusts to benchmark quality and productivity.



Quality Priorities – Patient Experience



Looking forward 2023/24

Priority 3 - Patient Experience

Embed a culture of learning and continuous improvement at all levels of the organisation.

Priority area - Patient involvement

Key actions we will take:

- The key priorities are outlined within the joint Patient Experience Enabling Strategy (2022-2025). These include:

Pillar one - Involvement

- We will involve patients and families in decisions about their treatment, care, and discharge plans.

Pillar two - Engagement

- We will develop our Patient Partner programme and use patient input to inform service change and improvements across the organisation

Pillar three - Experience

- We will support our staff to develop a culture of learning to improve care and experience for every patient.

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Within the Quality and Safety Enabling Strategy there are also several priority areas identified under the overarching theme of “fundamentals”, which are based on internal and external priorities. The Trust will also be expected to deliver on the specific objectives linked to the strategy under this section. [INSERT LINK TO STRATEGY]

Fundamentals - based on internal and external priorities:

- Priority Area - Prevention and management of patient deterioration
- Priority Area - Timely sepsis recognition and treatment
- Priority Area - Medicines management
- Priority Area - Adult and children safeguarding
- Priority Area - Infection prevention and control
- Priority Area - Eat, Drink, Dress, Move to Improve
- Priority Area - Patient discharge
- Priority Area - Maternity and neonates
- Priority Area - Mental health
- Priority Area - Digitalisation

The Quality and Safety Enabling Strategy also includes the following priority area, which is part of the “Care” strategic aim of the Trust Strategy:

Deliver financial sustainability by focusing investment on the areas that will have the biggest impact on our communities and populations.

- Priority Area - Financial sustainability

This will focus on ensuring that we best use the finite resources available to us, which include (but are not limited to) people, physical capacity and finances, as well as maximising opportunities offered through collaborative working between RWT and WHT.



Thank you and questions



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Together
we're making health
and social care better

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“

In the last ten years, the health and social care landscape has changed dramatically, but the dedication of local Healthwatch hasn't. Your local Healthwatch has worked tirelessly to make sure the views of local people are heard, and NHS and social care leaders use your feedback to make care better.

Louise Ansari, Healthwatch National Director

Message from our Manager

I'm pleased to introduce the Healthwatch Wolverhampton 2022-23 annual report and to share with you the achievements and progress made during the past year. It has been a year of change; for us as we established a new team and new offices, and for health and care services as the new Black Country Integrated Care System (ICS) came into power.

We have worked hard to raise awareness of our work and to champion the views of local people. We engaged with our diverse communities, including LGBTQ+ individuals, people who are visually impaired, people with autism, different ethnic communities, people who are homeless, young people, and older people living in care homes.

We have also provided valuable advice and information, helping people navigate the complexities of the healthcare system and access the services and support they need, including GP care, mental health support, and NHS dental care.

We strengthened our relationships with health and care organisations and partners, including the ICS, sharing people's feedback, and working together to improve services for local people and to reduce health inequalities.

Our efforts have resulted in the publication of four reports on improvements needed in local services, with a particular focus on access to GP services and enhancing the quality of care in residential homes. We have also contributed to national campaigns on maternity care and accessible information, through our partnership with Healthwatch England.

As we look forward to another productive year, I want to acknowledge the outstanding contributions of our dedicated staff, and our volunteers who have selflessly given their time to make care better for our community.



Stacey Lewis
Healthwatch
Wolverhampton Manager



I want to express my gratitude to everyone who has supported our work; your continued engagement and collaboration are vital as we strive to create a healthier future for our community.

About us

Healthwatch Wolverhampton is your local health and social care champion.

We are part of a network of over 150 local Healthwatch across England. We make sure NHS leaders and decision makers hear your voice and use your feedback to improve care. We can also help you to find reliable and trustworthy information and advice.



Our vision

A world where we can all get the health and care we need.



Our mission

To make sure people's experiences help make health and care better.

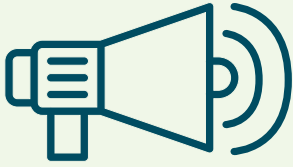


Our values are:

- **Listening** to people and making sure their voices are heard.
- **Including** everyone in the conversation – especially those who don't always have their voice heard.
- **Analysing** different people's experiences to learn how to improve care.
- **Acting** on feedback and driving change.
- **Partnering** with care providers, Government, and the voluntary sector – serving as the public's independent advocate.

Year in review

Reaching out



242 people

shared their experiences of health and care services with us, helping to raise awareness of issues and improve care.

2,262 people

came to us for clear advice and information about topics such as mental health and the cost of living crisis.

Making a difference to care

We published

4 reports about the improvements people would like to see to health and social care services. We also supported Healthwatch England campaigns leading to

2 national reports on maternity care and accessible information.

Our most popular report was

Accessing GP care in Wolverhampton

which highlighted where improvements are required to GP phone appointment booking systems.



Health and care that works for you



We're lucky to have

16 outstanding volunteers who gave up

33 days to make care better for our community.

We're funded by our local authority. In 2022-23 we received

£169,000

We currently employ

1 full-time and 3 part-time staff

who help us carry out our work.

How we've made a difference this year

Spring



Healthwatch Wolverhampton joined forces with Evolving Communities CIC and we reinvigorated our work in the city, connecting with our communities and our health and care partners.

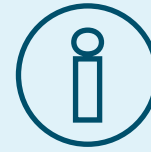


We called all GP practices in Wolverhampton to see if they had made improvements to their phone systems to help people access care more easily.

Summer



As the new Black Country ICS began work, so did our new team – sharing people's feedback, championing equality and inclusion, and creating a true partnership between services and the public to help make care better.



Earlier in the year, we asked local people to share feedback about the accessibility of healthcare information; Healthwatch England published findings to help NHS and social care decision makers understand where improvements are needed.

Autumn



We were out and about in the city, helping people to find local services and to have their say, including our ethnically diverse communities, people who are visually impaired, young people, and people who are homeless.



We conducted the third in our series of investigations to evaluate patient experience when booking GP appointments by phone and how this has changed over time; finding further improvements are needed.

Winter



We highlighted how the rising cost of living is affecting people's health and wellbeing. This informed a student awareness campaign at the University of Wolverhampton.



As part of our Enter and View programme, we visited two local care homes and spoke to residents, families, and carers to evaluate the quality of care and the environment.

10 years of improving care

This year marks a special milestone for Healthwatch. Over the last ten years, people have shared their experiences, good and bad, to help improve health and social care. A big thank you to all our Healthwatch Heroes who have stepped up and inspired change. Here are a few of our highlights:

How have we made care better, together?

Access to primary care and digital exclusion

Our research championed the views and needs of people who were likely to be digitally excluded when accessing primary care during the COVID-19 pandemic.



Social isolation and loneliness in Wolverhampton

By listening to people who were confined at home, including new mothers and older people, we were able to identify their needs and how services could develop to better support them.

Black Country children and young people's mental health services

Working as part of the Black Country Healthwatch partnership, we investigated children's experiences of mental healthcare to inform the look and feel of services.



Accessing dental care in Wolverhampton

We asked local residents about the issues and challenges they faced finding and using NHS dentists in Wolverhampton to raise awareness and understanding of their concerns.

Urgent care at New Cross Hospital

We carried out an evaluation of patient experience at the urgent care centre to inform improvements in service delivery of patient care.





Healthwatch Hero



Celebrating a hero in our local community

Olivia Simpson, the health check practitioner at the University of Wolverhampton, is our Healthwatch Hero. She gives us regular feedback, always follow things up, and works with us to ensure that students have access to good healthcare information and advice.

We have worked closely with Olivia this year on problems students have faced with accessing GP healthcare such as rude receptionists, lack of access and negligence in care. Following feedback, we arranged a meeting with Olivia and the Primary Care Commissioning Manager for Wolverhampton. This led to meetings with the practice manager at a GP surgery resulting in no further negative feedback to date.

Thanks to Olivia and everyone who shares their feedback with us to help make care better.



Listening to your experiences

Services can't make improvements without hearing your views. That's why over the last year we have made listening to feedback from all areas of the community a priority. This allows us to understand the full picture, and feed this back to services to help them improve.

Improving access to GP services

NHS England directed £250 million to help GP practices increase appointments offered by March 2022, but difficulty accessing appointments continues to be a widespread issue.

Since December 2021, we have been carrying out a series of investigations, independently on behalf of Wolverhampton's Health Scrutiny Panel (HSP), to help improve access to GP care. We have been monitoring how easily people can access GP services over the phone and evaluating whether patient access and experience has improved or worsened over time.

This year, we carried out research on two occasions, six months apart, in spring and winter 2022. We called all GPs in the city, asked them a series of questions, reported on changes, and made recommendations for further improvement.

Our recommendations focused around:

- How quickly phones are answered
- Number of staff available at busy times to cover calls
- Number of GP practices providing an effective call waiting system
- Quality of answer phone messages
- Quality of information and advice given by practice staff
- The availability of different type of appointments.

What difference will this make?

We presented our reports to Wolverhampton's Health Scrutiny Panel, and shared data about GP practices with each Primary Care Network to help them improve patient experiences.



The Black Country Integrated Care Board (ICB) attended the Health Scrutiny Panel meeting and presented a report on access to GP services, including actions it is taking with GP practices to improve telephone and digital access for patients. The Health Scrutiny Panel will look again at access to GP services during 2023 and the ICB will work with Healthwatch to support development and implementation of a further survey if that is requested.

Paul Tulley, Wolverhampton Managing Director, Black Country ICB

Improving the quality of care homes

One of the ways we meet our statutory responsibilities is by using our legal powers to Enter and View publicly funded health and social care services, to see them in action and speak to people about their experience of using the service.

As part of our partnership working with City of Wolverhampton Council and the Care Quality Commission (CQC), we carry out these visits to support quality monitoring of residential care homes in the city.

In February 2023, we visited two care homes in Wolverhampton, to speak to residents, family, carers, and staff. We observed the standard of care provided, the environment and facilities, activities for residents, and interactions and communications.

We collected evidence of what works well and where changes are needed, and we produced reports to share people's views and examples of good practice, as well as recommendations for improvement.

Our recommendations:

We made six recommendations to inform improvements at Anville View Care Home, around facilities, and residents' activities and engagement at the home and in the community.

““ The home has helped me regain strength to become independent.
He needs to be with more people, not surrounded by walls and a TV.

We made seven recommendations to inform improvements at Penn Care Home, including changes to ensure appropriate care for residents with complex needs including dementia, improvements to facilities, patient safety, resident activities and engagement.

““ I enjoy being here, it feels like a family.

What difference will this make?

““ CQC takes into account the valuable insight Healthwatch Wolverhampton shares with us on local services. We use this insight to corroborate the evidence gathered as part of our regulatory work. The unique patient experiences collected by Healthwatch Wolverhampton support CQC to hear from people at the point at which they are using services and help us to assess what is working well for people and what could be improved.

CQC Inspection Team

Three ways we have made a difference for the community

Throughout our work we gather information about health inequalities by speaking to people whose experiences aren't often heard.

Creating empathy by bringing experiences to life



It's important for services to see the bigger picture. Hearing personal experiences and the impact on people's lives provides them with a better understanding of the problems.

Patients are encouraged to use online services to access GP care, but digital services can create barriers. Mr H, whose first language is not English, tried to book an appointment in person, but he was told to book by phone. He felt too upset and ashamed to say he didn't understand. We shared his feedback with the One Wolverhampton Health Inequality Lead and the ICB to advocate for change.

Getting services to involve the public



Services need to understand the benefits of involving local people to help improve care for everyone.

We heard that the Patient Participation Group (PPG) in Wolverhampton Primary Care Network has not been as effective as it should be. This feedback was gathered at ICB People Panel events, PPG meetings, and through phone calls. We raised people's concerns with One Wolverhampton Integrated Care Partnership (ICP) and ICB, which led to training for practice managers and patients to support better PPGs.

Improving care over time



Change takes time. We often work behind the scenes with services to consistently raise issues and bring about change.

We work with various steering groups to improve care. For example, we asked for the Joint Strategic Needs Assessment to improve adult mental health support; we're bringing patient voice to the city's autism strategy; and we're ensuring safe and dignified care in our hospitals by working with the Royal Wolverhampton NHS Trust and the Maternity Voices Partnership. We've also informed the ICB's Healthier Future Strategy.



Hearing from all communities

Over the past year we have worked hard to make sure we hear from everyone within our local area. We consider it important to reach out to the communities we hear from less frequently, to gather their feedback and make sure their voice is heard and services meet their needs.

This year we have reached different communities by:

- Running focus groups with people who are blind or visually impaired.
- Working with our minority ethnic communities.
- Engaging with our LGBTQ+ community.
- Connecting with people experiencing homelessness.
- Attending university events to meet and listen to young people.

Listening to our LGBTQ+ community

We want to understand the health and social care experiences of our LGBTQ+ community, so we spoke to people at Rainbow Oasis, a social community group. Difficulty getting a GP appointment was the most common issue raised. We told the group that concern around accessing GP services is a recurring problem for local people and explained our ongoing investigation to monitor the situation and influence positive change.

By attending the Rainbow Oasis group we were able to raise awareness among the LGBTQ+ community of our work and the support we provide. We extended this further by attending Wolverhampton Pride in June 2023, where we engaged with people from across our vibrant community.



Macular Society and Visual Impairment (VI) Forum

We gathered valuable insight from members of our community who are visually impaired, by attending the Macular Society and the Sight Loss Council's VI Forum.

At the Macular Society, we heard feedback about the eye infirmary at New Cross Hospital and the need for staff training around giving instruction and support to people who are visually impaired. For example, staff should not tell patients to 'sit on the green chair over there', or say 'follow me', but they should provide appropriate support to direct people who need assistance, for example by using volunteers. Difficulty getting NHS dental care and the cost of private dentistry was also raised by everyone in the group.

As the Sight Loss Council's forum, the main themes we identified from people's feedback were around the lack of accessible services, negligence in care, and people not feeling heard. We were delighted to attend this event and to be part of a community committed to improving health and social care services for people with visual impairments and their families.



Advice and information

If you feel lost and don't know where to turn, Healthwatch Wolverhampton is here for you. In times of worry or stress, we can provide confidential support and free information to help you understand your options and get the help you need. Whether it's finding an NHS dentist, how to make a complaint or choosing a good care home for a loved one – you can count on us.

This year we've helped people by:

- Providing up-to-date information people can trust.
- Helping people access the services they need, including GP care and NHS dentistry.
- Listening to people's concerns and sharing their feedback with system partners and decision makers.
- Supporting people to look after their health during the cost of living crisis.

Supporting students during the cost of living crisis

We attended several open days and events at the University of Wolverhampton. We provided students with advice about how to look after their mental health, and shared information about mental health services and support groups in the city. We worked with health and social care students supporting them to share resources with other students about how to keep well during the cost of living crisis, and we took part in a university radio programme on the topic, along with local mental health organisations.

Guiding a family to the right mental health support

We were contacted by parents who were concerned about their son's deteriorating mental health. He had become very low, angry, and intimidating; he wasn't leaving his bedroom or eating, and the family were struggling to communicate with him. They were distressed and wanted to know what they could do to help their son.

We advised them to book an appointment with their son's GP as soon as possible, and suggested they contact Base 25, a local mental health support service for further specialist guidance. We also told them about St George's Hub, which is a safe space for men to get help with their mental health problems and to improve their self-esteem and confidence.

The family came to us because they had no idea how to deal with their son's mental health or where to turn for help, and we were able to guide them to the right support.



Healthwatch Wolverhampton is commissioned by City of Wolverhampton Council. The aim of Healthwatch is to give individuals and communities a stronger voice to influence and challenge how health and social care services are provided within the locality to meet need more effectively and to reduce health and social care inequalities.

Healthwatch also provide signposting and information to help support local people to make informed decisions around health and social care services.

**Shen Campbell, Commissioning Officer (Adults),
City of Wolverhampton Council**



Volunteering

We're supported by a team of amazing volunteers who are at the heart of what we do. Thanks to their efforts in the community, we're able to understand what is working and what needs improving.

This year our volunteers:

- Collected feedback, supporting local people to share their experiences and views.
- Conducted Enter and View visits to local services to help them improve.
- Visited communities to promote Healthwatch Wolverhampton and what we offer.
- Reviewed GP phone systems to evaluate access to appointments.

Dan

"It's not just a voluntary role, it's what you do to support and empower the community. From ensuring that everyone's views are heard, to engaging with health and social care providers... and that's why I enjoy volunteering at Healthwatch and within my local community!"



Claire

"As a volunteer I have had the privilege of completing Enter and View training to enable me to visit care homes and engage with vulnerable people to ensure they are safe and well cared for. Volunteering for Healthwatch has taught me a number of skills and values which I am now able to take into the workplace."



George

"In the midst of a barrage of setbacks bedevilling the UK health sector, it has been an exciting experience to be part of the people's voice to policy makers. I'm excited about the opportunities Healthwatch has offered me to be the people's voice, rather than complaining. My fulfilment has been seeing people helped against prostate cancer – signposting men in need to available prostate cancer solutions through Healthwatch events simplifies my work as a prostate cancer champion."



Do you feel inspired?

We are always on the lookout for new volunteers, so please get in touch today.



healthwatchwolverhampton.co.uk



0800 246 5018



info@healthwatchwolverhampton.co.uk

Finance and future priorities

To help us carry out our work we receive funding from our local authority under the Health and Social Care Act 2012.

Our income and expenditure

Income		Expenditure	
Annual grant from local authority	£169,000	Expenditure on pay	£83,093
Additional income	£1,200	Non-pay expenditure	£38,990
		Office and management fee	£39,544
Total income	£170,200	Total expenditure	£161,627

Additional funding is broken down by:

- **£1,200** from CQC to support work on Board member recruitment and development.

Next steps

In the ten years since Healthwatch was launched, we've demonstrated the power of public feedback in helping the health and care system understand what is working, spot issues and think about how things can be better in the future.

Services are currently facing unprecedented challenges and tackling the backlog needs to be a key priority for the NHS to ensure everyone gets the care they need. Over the next year we will continue our role in collecting feedback from everyone in our local community and giving them a voice to help shape improvements to services.

We will also continue our work to tackle inequalities and work to reduce the barriers you face when accessing care, regardless of whether that is because of where you live, your income, your ethnic background or your gender.

Top three priorities for 2023-24

1. Access to GP services: phone systems and websites.
2. Mental health support for people with autism.
3. Monitoring the quality of care homes.



Statutory statements

Healthwatch Wolverhampton, Regent House, Bath Avenue, Wolverhampton, WV1 4EG.

Healthwatch Wolverhampton is hosted by Evolving Communities CIC, a community interest company limited by guarantee and registered in England and Wales with company number 08464602. The registered office is at Unit 2, Hampton Park West, Melksham, SN12 6LH.

Healthwatch Wolverhampton uses the Healthwatch Trademark when undertaking our statutory activities as covered by the licence agreement.

The way we work

Involvement of volunteers and lay people in our governance and decision-making

Our Healthwatch Board consists of four members who work on a voluntary basis to provide direction, oversight, and scrutiny to our activities. During 2022/23 our Board met four times.

We ensure wider public involvement in deciding our work priorities.

Methods and systems used across the year to obtain people's experiences

We use a wide range of approaches to ensure that as many people as possible have the opportunity to provide us with insight about their experience of using services. During 2022/23 we have been available by phone, email, through social media and via our website contact form. We have also attended meetings of community groups and forums.

We ensure that this annual report is made available to as many members of the public and partner organisations as possible. We will publish it on our website, announce it to the press, on social media, and in our monthly news bulletin. We will share it with the Wolverhampton Health and Wellbeing Board and other stakeholders.

Responses to recommendations

Two providers did not respond to our recommendations. We have reminded them of their duty to respond and given them the opportunity to make a late response that we will publish. There were no issues or recommendations escalated by us to the Healthwatch England Committee, so no resulting reviews or investigations.

Taking people's experiences to decision makers

We ensure that people who can make decisions about services hear about the insight and experiences that have been shared with us. In our local authority area for example, we take information to the Health and Wellbeing Board, CQC, Public Health, Wolverhampton Safeguarding Together, Autism Partnership Board, Dementia Alliance, Wolverhampton Voluntary & Community Action and Maternity Voices Partnership.

We also take insight and experiences to decision makers at Black Country ICB and Black Country Healthcare NHS (mental health service). For example, we sit on the One Wolverhampton ICB and in collaboration with the three other Black Country Healthwatch, we share feedback with the ICB Involvement Team. All four local Healthwatch contributed to the ICB Healthier Futures Integrated Care Strategy. We also share our data with Healthwatch England to help address health and care issues at a national level.

Healthwatch representatives

During 2022/23, Healthwatch Wolverhampton was represented on the Health and Wellbeing Board by Board member Sheila Gill. She effectively carried out this role by attending all meetings and sharing feedback to make sure that the public, patient and service user voice has been used to shape how the Health and Wellbeing Board works with the One Wolverhampton ICP.

Healthwatch Wolverhampton is represented on the One Wolverhampton ICP by Stacey Lewis, Healthwatch Wolverhampton Manager, and on the Black Country ICB by Aileen Farmer, Healthwatch Walsall Manager. Stacey Lewis also sits on the Wolverhampton Safeguarding Together Board and the Health Scrutiny Panel.

Enter and View

This year, we made two Enter and View visits as part of our ongoing partnership with City of Wolverhampton Council and CQC to support quality monitoring of residential care homes in the city. We made 13 recommendations as a result of this activity.

Location	What we did as a result
Anville Court Care Home, Wolverhampton Read our report: healthwatchwolverhampton.co.uk/report/2023-02-07/enter-and-view-anville-court-care-home	We wrote a report with six recommendations to inform the improvement plan for the care home, including work on facilities, resident activities and engagement.
Penn House Care Home, Wolverhampton Read our report: healthwatchwolverhampton.co.uk/report/2023-02-08/enter-and-view-penn-house-care-home	We wrote a report with seven recommendations to inform the improvement plan for the care home, including work to ensure appropriate care for residents' complex needs including dementia, improvements to facilities, patient safety, resident activities and engagement.

2022–2023 Outcomes

Project/activity	Changes made to services
<p>A new reinvigorated Healthwatch for Wolverhampton</p>	<p>Following a tender process, the Council commissioned Evolving Communities CIC to run Healthwatch Wolverhampton. We established a new local team and office, and focused on raising awareness among all stakeholders. This enabled us to connect and interact with communities and the health and care system, so that public feedback and collaboration could be embedded in service development and improvement during the year.</p>
<p>Building community involvement through volunteering</p>	<p>To make sure our new Healthwatch service reaches and represents our diverse communities, we had a sustained volunteer recruitment campaign throughout the year.</p>
<p>Accessing GP care in Wolverhampton</p>	<p>We assessed the quality and accessibility of the phone booking systems used by GP practices and Primary Care Networks, to understand if patient access to GP appointments in Wolverhampton has improved over time. We shared our reports with the Health Scrutiny Panel and Primary Care Networks so they can use the findings to improve their patient's experiences.</p>
<p>Raising student awareness and engagement, including around access to GP care</p>	<p>We took part in student events at the University of Wolverhampton to raise awareness about local services and support, to gather feedback, and recruit volunteers. We provided information and advice around accessing GP services. We organised meetings with the university's Health Check Practitioner and the Primary Care Commissioning Manager, so that the concerns around quality of care at a local GP surgery could be discussed and addressed.</p>
<p>Autism: awareness, mental health and suicide prevention</p>	<p>Through attending a suicide prevention and mental health awareness forum based at the University of Wolverhampton, we engaged with professionals from different sectors. As a result we are now working with the Black Country Healthcare NHS Foundation Trust on a project to tackle the high rate of suicide among autistic people, and our Engagement Officer now sits on a panel which focuses on the lived experience of people with autism in partnership with the West Midlands Police.</p>

healthwatch Wolverhampton

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