

Dudley Health Scrutiny Committee

Vascular Reconfiguration update

25th September 2013

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The Provision of Services
for Patients with Vascular Disease
2012

WWW.VASCULARSOCIETY.ORG.UK



“
All patients with vascular
disease should have 24/7
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“

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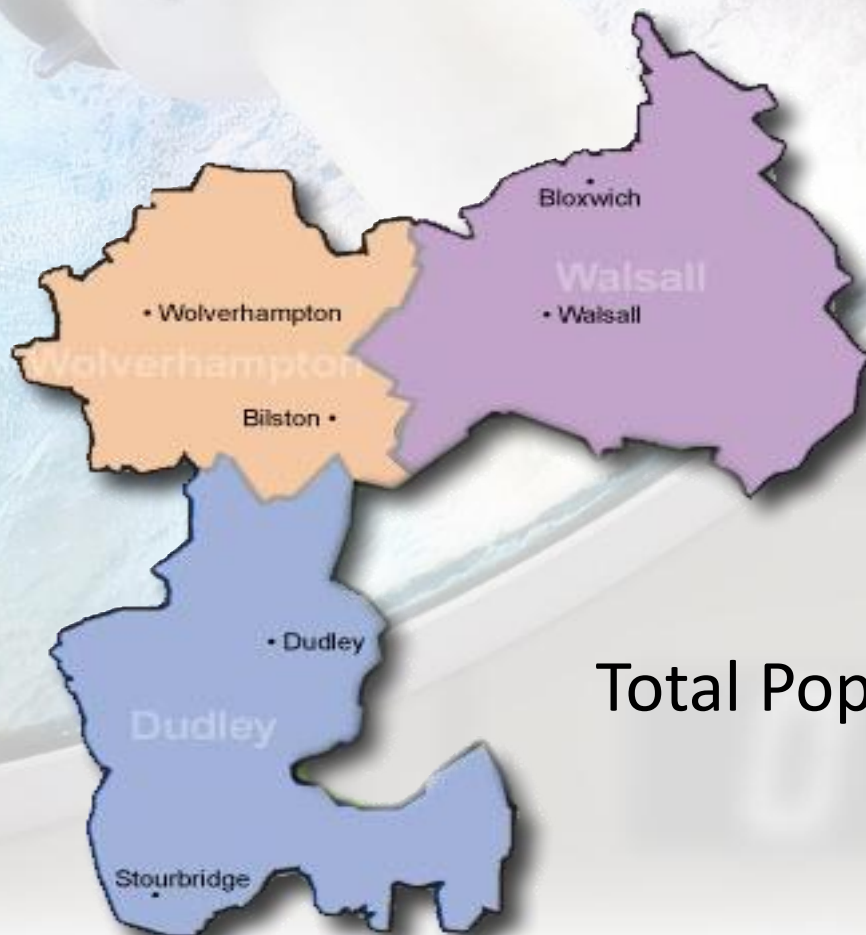
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Vascular HUB – Russells Hall Hospital, Dudley



How are things different since 16th July 2012?

The Black Country Vascular Centre



Total Population over 800,000

Major Arterial Surgery at HUB

All Index Vascular Procedures (Elective & Emergency)

- Aortic Aneurysm Repair
- Carotid Endarterectomy
- Infra-inguinal Bypass
- Major Amputations

Services Spoke Sites

- New Cross Hospital, Wolverhampton
- Walsall Manor Hospital

What is delivered at spoke sites?

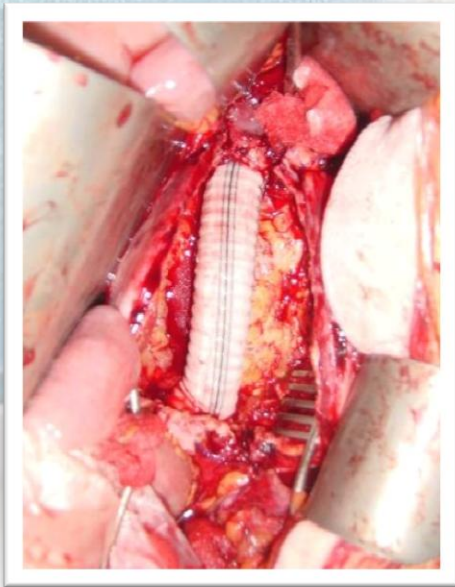
- Out patient clinics – 80% need medical management
- Pre-operative investigations
 - MRI
 - CT
 - Arterial ultrasound
 - Echocardiogram and lung function tests
- Day case surgery

Implementation of Phase 1 & 2

- Phase 1 – 16th July 2012
 - Emergency vascular surgery
 - Elective aortic surgery
- Phase 2 – 1st April 2013
 - Major arterial surgery
 - Carotid Endarterectomy
 - Infra-inguinal bypass
 - Major amputations

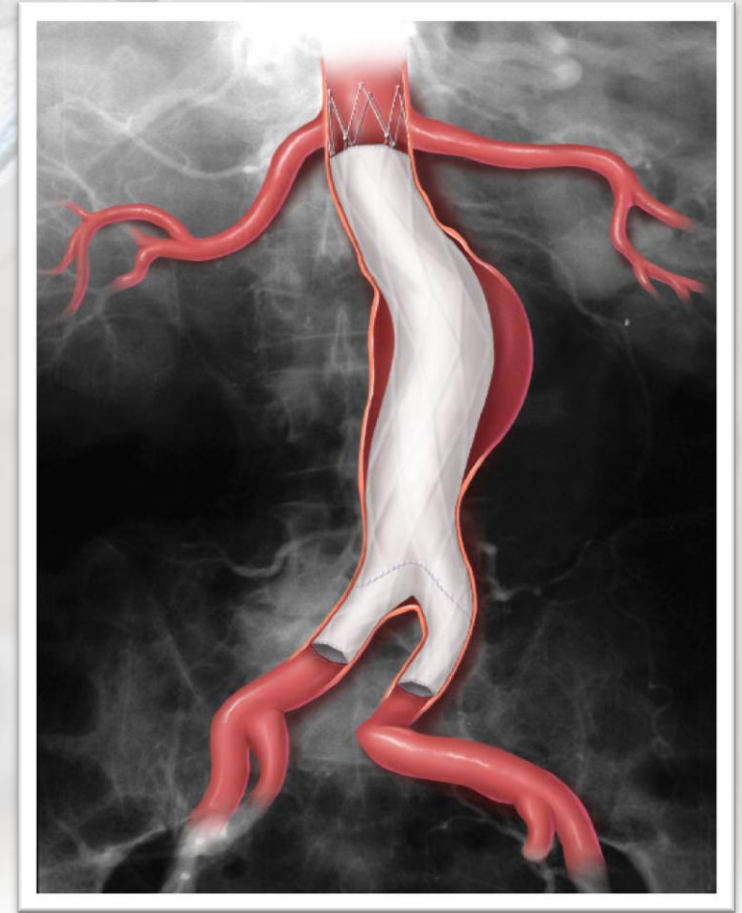
World Class Vascular Service

- Abdominal Aortic Aneurysm Surgery
 - Endovascular Aneurysm Repair (EVAR)
Keyhole
 - Open



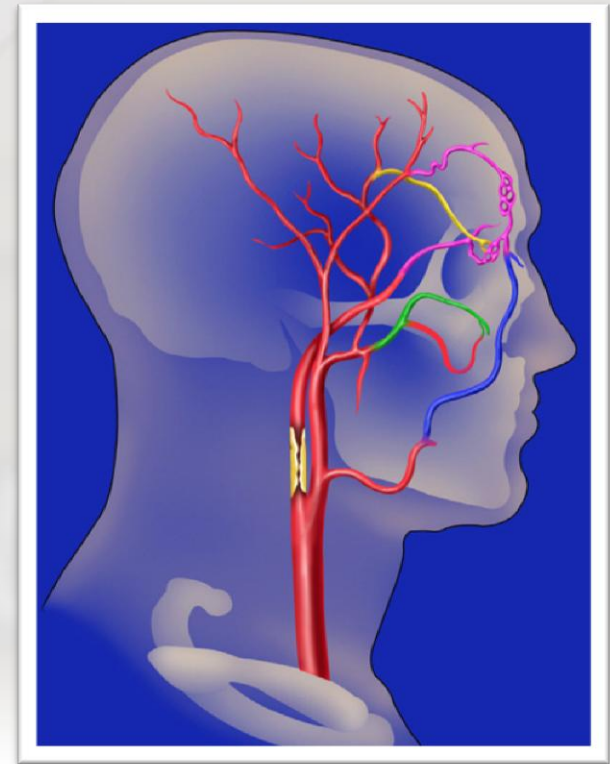
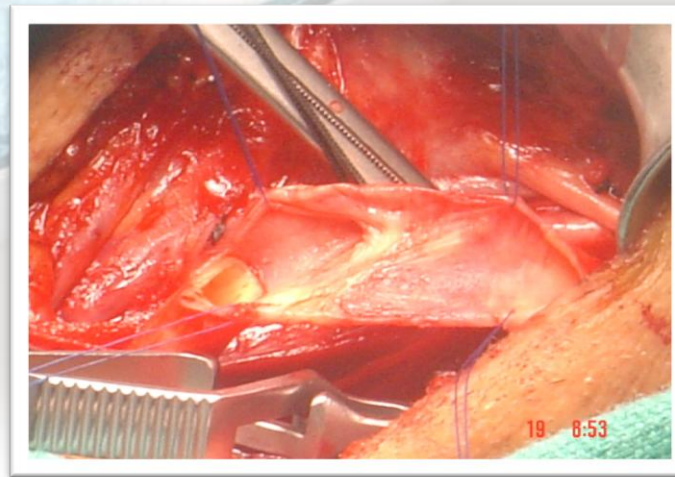
Prevent death

(Mortality < 3.5% - 2014)



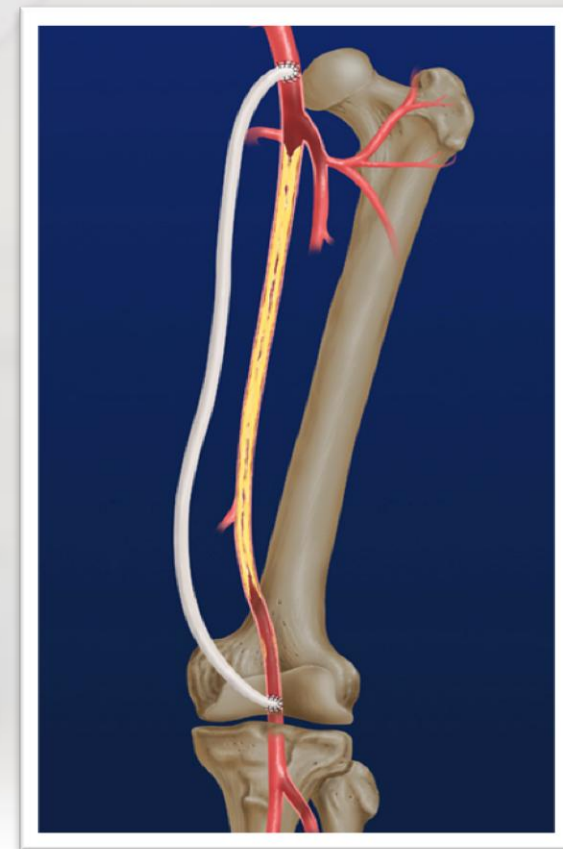
World Class Vascular Service

- Carotid Endarterectomy – from onset of symptoms
 - 2 weeks 2014
 - 48 hours 2017
 - Surgery to prevent stroke
(1 – 3% risk of peri - op stroke)



World Class Vascular Service

- Peripheral Vascular Intervention
 - Surgery and Intervention Radiology
 - Infra-inguinal bypass and Angioplasty
 - Prevent amputations



Challenges – Vascular Services

- Ageing population – diversity in Black Country
- 50% – urgent or emergency vascular presentations
 - Out of hours
- Consultant delivered service
- Specialist Vascular Team
- Junior medical staff
- Basic Vascular Services – spoke hospitals



Infrastructure

- **Diagnostics**
 - Vascular Ultrasound Scan
 - MRI and CT scan
- **Operative & Endovascular intervention**
 - Operating Theatre
 - Endovascular Suite
- **Post anaesthesia care unit**
 - Vascular Anaesthetist
 - Critical Care Unit
- **Vascular wards**
 - Specialist Nurses
- **Rehabilitation facilities**
 - Physiotherapy and Occupational Therapist



Endovascular Suite



Vascular Theatre



Workforce

- **Vascular Surgeons – Vascular specialists 8**
 - Open Surgery
 - Endovascular
- **Vascular Interventional Radiologists 6**
 - Sub-specialty
 - Team work (Dudley and New Cross hospital)
- **Vascular Anaesthetists**
 - Elective
 - Emergency
 - Intensive care unit

Workforce – support team

- Physicians: stroke, renal, cardiology, diabetologist, chemical pathology
- Vascular lab scientists
- Physicians: Clinical Nurse Specialist, theatre nurses, tissue viability nurses, ward nurses, palliative care team
- Physicians: physiotherapy, occupational therapy, podiatry, speech and language, psychology, dietetics, orthotics, social workers

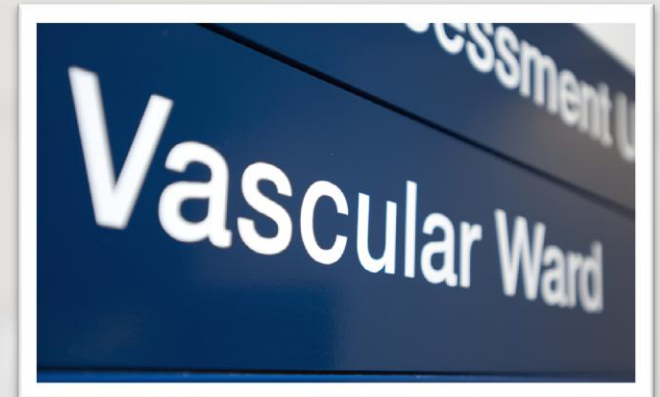


How does the vascular team work?

- Emergency on call 24/7 cover shared by 8 Vascular Surgeons
- Monday to Friday 8am – 6pm Consultant Vascular Surgeon on duty with no elective commitment
- Monday to Friday Night on call different Vascular Surgeon each night
- Weekend on call surgeon Friday 6pm – Monday 8am
- Consultant delivered service
- Daily consultant ward round including weekend

Achievements

- Implementation of Phase 1 & 2 (Black Country Vascular Centre)
 - Clinical workforce (Vascular Surgeons, Anaesthetists, Radiologists & Nurses)
 - Resources – dedicated vascular ward
 - Multidisciplinary Team (MDT) meetings
 - Mortality and Morbidity (M&M) meetings
 - Audit & Governance
 - Education and Research
 - Excellent outcomes
- National AAA Screening Programme – April 2012



Performance – Carotid Endarterectomy

(No of operations & timing)

Achievements

- Number of carotid endarterectomies performed per unit per year
 - **88** cases undertaken in the past 12 months.
 - Target is to perform a minimum of 30 per year

Areas for further focus

- Time from first event (stroke or TIA) to carotid endarterectomy (percentage of appropriate symptomatic cases operated on within 2 weeks)
 - Pre Hub – which was 19.2%
 - Post Hub – we have achieved 62%
 - 2014 – 100%

Performance – Carotid Endarterectomy

(Reported complications)

Achievements *continued*

- | | |
|------------------------------------------|---------------|
| • Stroke rate (self-reported, 30 day) | Disabling |
| • 12 months before Hub | Nil |
| • Post Hub to date - | Nil |
| • Stroke rate (self-reported, 30 day) | Non-disabling |
| • 12 months before Hub - | Nil |
| • Post Hub to date - | Nil |
| • 30 - days mortality | |
| • 12 months before Hub - | Nil |
| • Post Hub to date - | Nil |
| • Post-operative length of stay (median) | |
| • 2 days pre and post Hub | |

Performance – Aortic Surgery

Achievements *continued*

- Ruptured open infra-renal aneurysm mortality rate: **Emergency**
 - 12 months before Hub 28.6%
 - Post Hub to date 26.7%

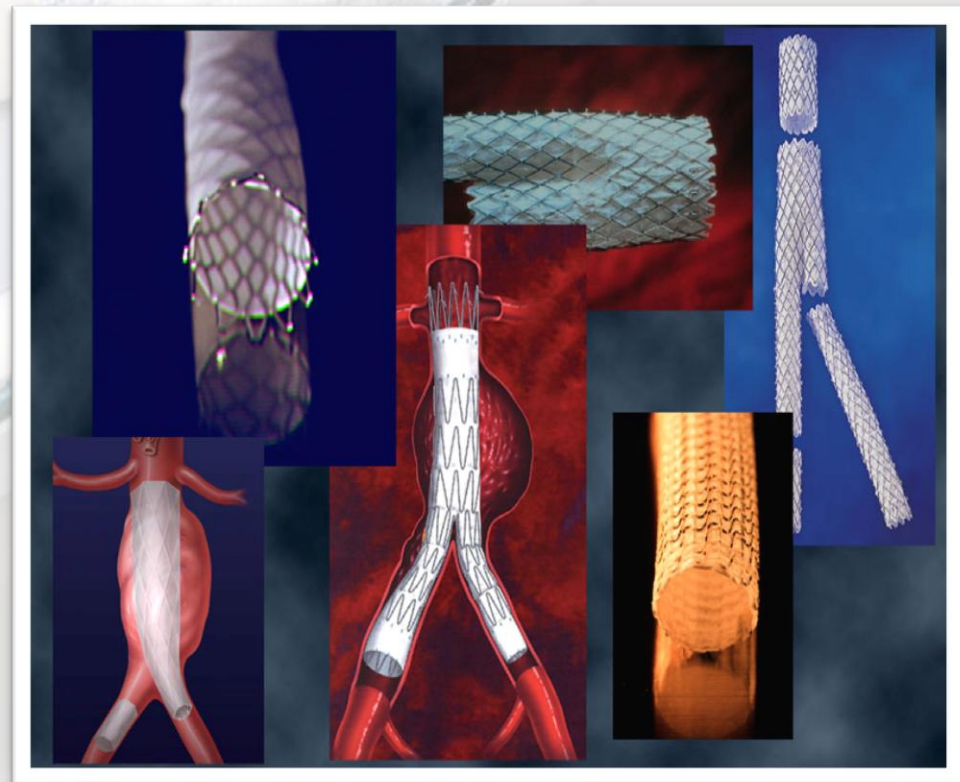
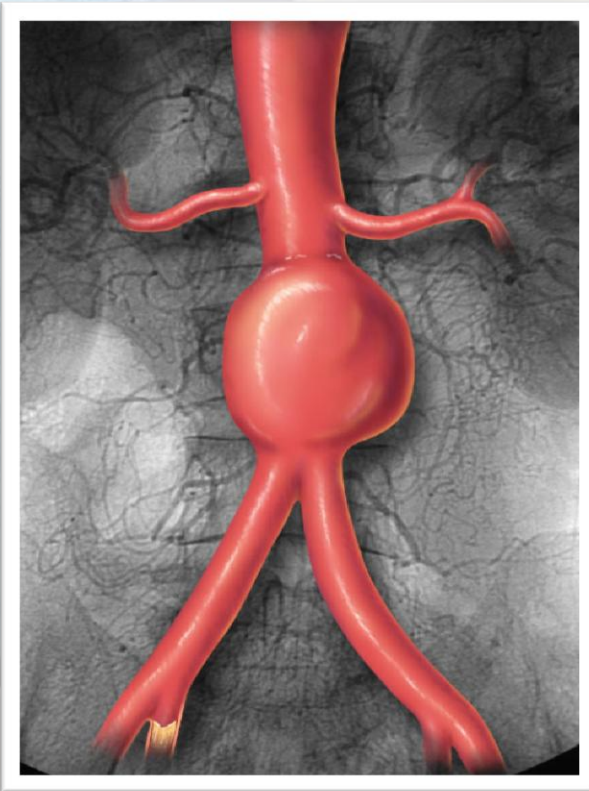
- EVAR Mortality rate: **Elective**
 - 12 months before Hub Nil
 - Post Hub to date Nil
 - Nil

- Length of stay (median) post Hub:
 - Elective (All) 6 days
 - Elective (EVAR) 3 days
 - Elective (Open Repair) 8 days

- Number of cases operated on per year per unit
 - **125** cases undertaken post hub to date. Target is to perform a minimum of **33** per year
 - **97** elective & **28** emergency

Endovascular Aneurysm Repair (EVAR)

“Keyhole Operation” (Elective)

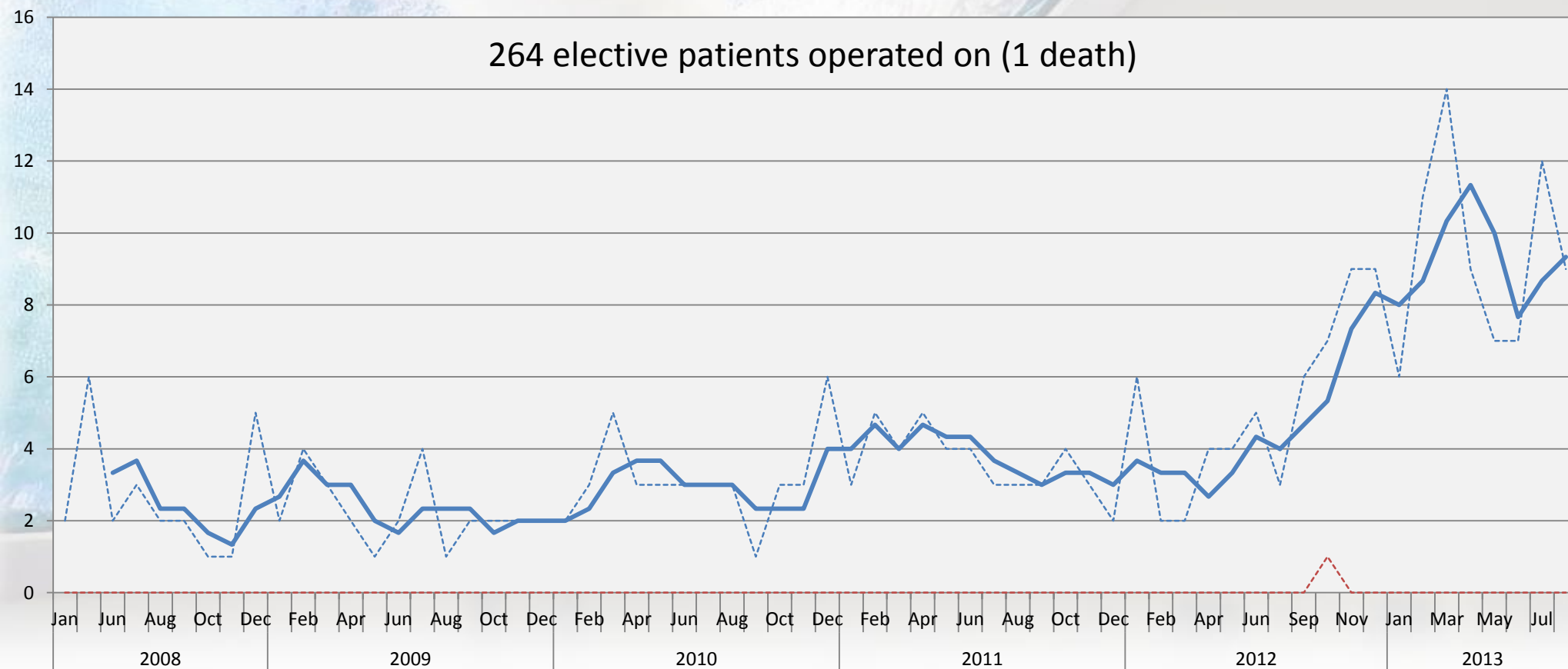


Mortality Following Elective AAA Repair: January 2008 - Present

Elective AAA Repairs: Number of Spells (Blue) vs. Number of Deaths (Red)

----- Elective Spells - - - - - Elective Deaths ——— 3 per. Mov. Avg. (Elective Spells)

264 elective patients operated on (1 death)



Source: Data warehouse



Performance – Infra-inguinal (leg) bypass

Achievements

- 30 days mortality (data for in-hospital mortality only)
 - 12 months before Hub 4%
 - Post Hub to date 2.5%
- Post-operative length of stay (median): Elective
 - 12 months before Hub 7 days
 - Post Hub to date 6 days
- Post-operative length of stay (median): Emergency
 - 12 months before Hub 13 days
 - Post Hub to date 9 days

Since Vascular Hub Implementation July 12

Emergency leg bypass procedures 65

Elective leg bypass 61

Performance – Major Amputation

Achievements

- 30 day mortality (data for in-hospital mortality only)
 - Recent reductions in 30 day mortality.
 - 12 months before Hub 18.8% mortality rate
 - Post Hub to date 8.6% mortality rate
- Length of stay
 - Recent reductions in amputation length of stay. Recent performance is now better than national average.
 - Elective length of stay
 - 12 months before Hub 37 days
 - Post Hub to date 17 days
 - Non Elective length of stay
 - 12 months before Hub 56 days
 - Post Hub to date 29 days

Rupture Abdominal Aortic Aneurysm

Mortality 50%

Detect early – Screening



National AAA screening programme

- Programme for Black Country – delivered by RHH
 - Commenced – April 2012
 - All men on 65th birthday – to attend local GP for scanning
 - If found AAA > 5.5 cm – referred to vascular surgeon
 - To be operated within 8 weeks from diagnosis
 - If small AAA – surveillance through programme
-
- To Prevent rupture



National AAA screening programme

Statistical information

- Total number of men screened: 6567
 - Number of invited subjects: 5344
 - Number of self referrals screened: 1223
- Current uptake rate: 83% of invited cohort
- Surveillance (small to medium aneurysms): 85
- Referrals to the Vascular Service: 13

EVAR: 7

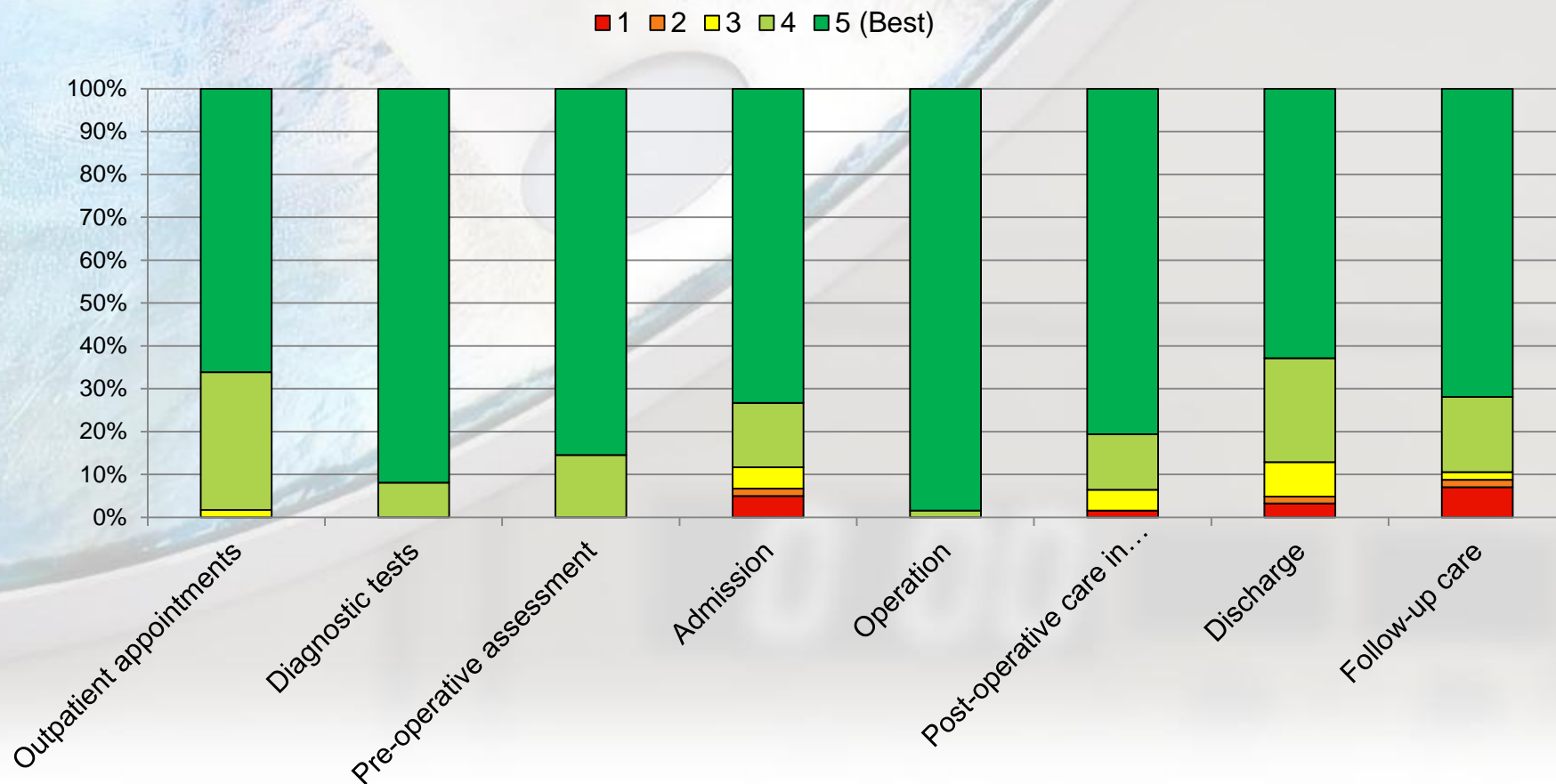
Open: 6

Clinic Locations

- Dudley 13 clinic locations
- Wolverhampton 10 clinic locations
- Walsall 14 clinic locations

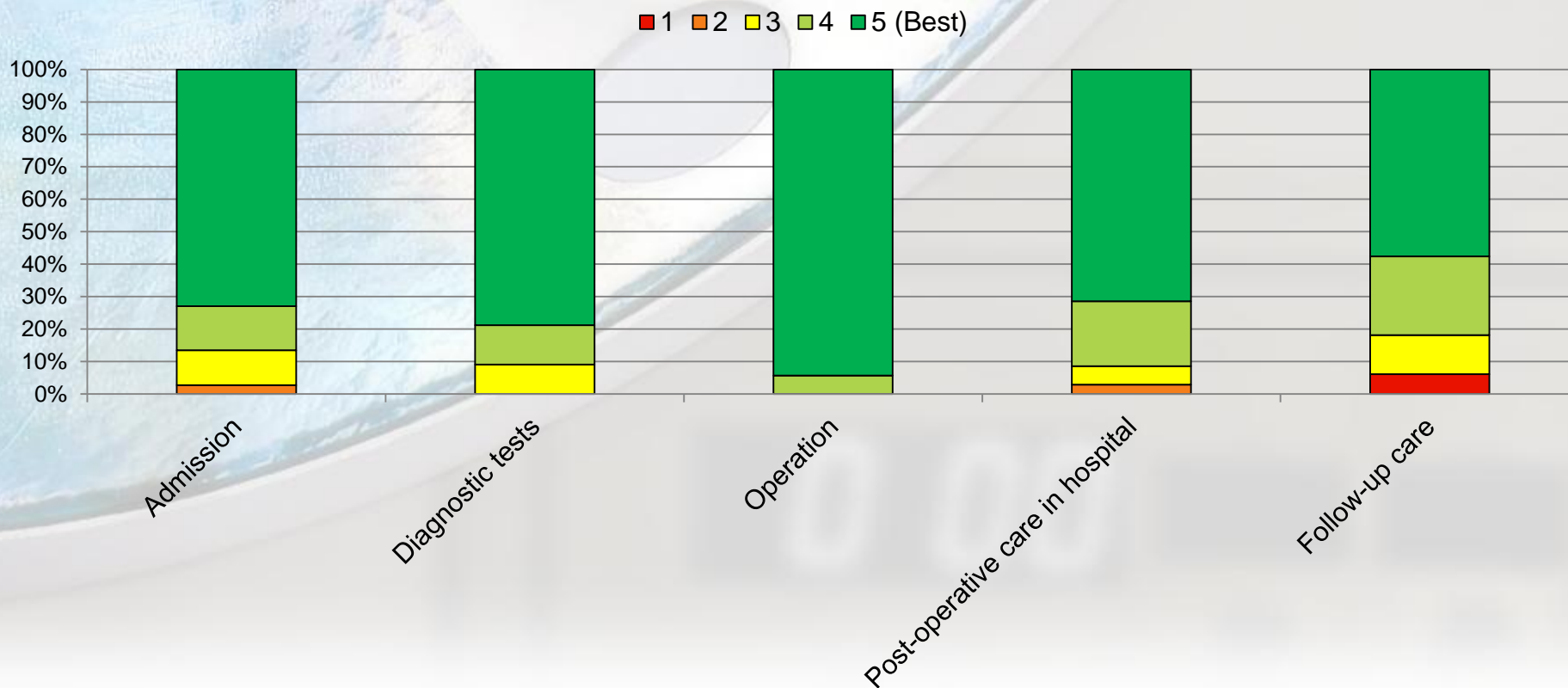
Patient experience - Elective care

Patient Ratings for Elective Vascular Procedures by Stage in the Patient Pathway



Patient experience – Emergency care

Patient Ratings for Emergency Vascular Procedures by Stage in the Patient Pathway



Patient experience – AAA Screening

- 100% happy with allocated screening location
- 88% happy with the appointment
- 98% received enough information about the screening programme before they attended



Patient experience – AAA Screening

- 100% given opportunity to ask questions about any concerns or worries
- 100% received explanation of test and results that they understood
- 100% given enough privacy when screened
- 100% would recommend screening



Future Plans

- World Class Vascular Centre – Consolidation of vascular services – Hub and Spoke Model
- State of the art Hybrid Theatre
- Integrated Vascular Centre
 - Quick diagnostic and interventional (Open and Endovascular) Service

Transforming a dream – Hybrid Theatre



World Class Vascular Centre – Black Country Vascular Centre

Thank You



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