

Bundle Health Board 21 May 2020

Public Session
2.30pm Via Webex

- 1 20.60 Sylwadau Agoriadol y Cadeirydd / Chair's Introductory Remarks - Mr Mark Polin
- 2 20.61 Ymddiheuriadau am Absenoldeb / Apologies for Absence
- 3 20.62 Datgan Buddiannau / Declarations of Interest
- 4 20.63 Gwasanaethau Fasgwlaidd / Vascular Services - Dr David Fearnley

Recommendations:

The Board is asked to:

1. Approve the establishment of a Task and Finish Group, chaired by the Executive Medical Director, to oversee the implementation of the vascular services review recommendations.
2. Request the Task and Finish Group to consider the draft action plan to identify any further required actions and recommended key performance indicator.
3. Agree progress reporting arrangements are via the Quality, Safety and Experience committee.
4. Commission an external, independent multi-disciplinary assessment of the North Wales Vascular Service provided across the Health Board to assess the quality and safety of the service and patient outcomes.

20.63 Vascular Review report v0.8 reformatted.docx

20.63 Appendix 1 Healthcare in North Wales is Changing.pdf

20.63 Appendix 2 Vascular Model V5.doc

20.63 Appendix 3 GIRFT Vascular Surgery Report 2018.pdf

20.63 Appendix 4 Analysis of Bed Requirements.docx

20.63 Appendix 6 WAAASP Feedback.pdf

20.63 Appendix 7(i) Simulation and anaesthetic training.doc

20.63 Appendix 7(ii) Simulation and anaesthetic training.docx

20.63 Appendix 7(iii) Simulation and anaesthetic training.docx

20.63 Appendix 8 Vascular Staff Nurse Portfolio of Competency.docx

20.63 Appendix 9 Agenda of vascular nurse training days.docx

20.63 Appendix 10 Vascular admissions.docx

20.63 Appendix 11 Vascular Society – A Best Practice Clinical Care Pathway for Peripheral Arterial Disease.pdf

20.63 Appendix 12 Vascular outliers.docx

20.63 Appendix 13 Theatre cancellations.docx

20.63 Appendix 14 Emergency theatre activity.docx

20.63 Appendix 15 Readmissions within 30 days.docx

20.63 Appendix 16 Major procedures.docx

20.63 Appendix 18 Amputations.docx

20.63 Appendix 19 Outpatient attendances new and review.docx

20.63 Appendix 20 PTL.docx

20.63 Appendix 21 Activity lost due to consultants not participating in the on-call rota April to September 2019.docx

20.63 Appendix 22 RTT and FUWL review and actions.docx

20.63 Appendix 23 Follow up waiting list.docx

20.63 Appendix 24 Concerns.docx

20.63 Appendix 25 Patient feedback.pdf

20.63 Appendix 26 - MDT SOP.docx

20.63 Appendix 27 Rapid improvement event feedback and actions.docx

20.63 Appendix 28 North Wales response from Vascular society May 2020.pdf

20.63 Appendix 29 BCUHB North Wales Joint Vascular Surgery and Vascular Imaging COVID-19 Pathway.pdf

20.63 Appendix 30 BCUHB Vascular Network Action Plan v0.2.docx

20.64 Dyddiad y Cyfarfod Nesaf / Date of Next Meeting

18.6.20 @ 10.30am



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|--|---|
| Cyfarfod a dyddiad: Meeting and date: | Health Board 21 st May 2020 |
| Cyhoeddus neu Breifat: Public or Private: | Public |
| Teitl yr Adroddiad Report Title: | Update on North Wales Vascular Service |
| Cyfarwyddwr Cyfrifol: Responsible Director: | Dr David Fearnley, Executive Medical Director |
| Awdur yr Adroddiad Report Author: | Dr Kate Clark, Secondary Care Medical Director Joanne Garzoni, Vascular Network Manager |
| Craffu blaenorol: Prior Scrutiny: | Supported by the Executive team and reviewed by the Vascular Society |
| Atodiadau Appendices: | <p>Appendix 1 Healthcare in North Wales is Changing – Public Consultation</p> <p>Appendix 2 Vascular Model</p> <p>Appendix 3 GIRFT Vascular Surgery Report 2018</p> <p>Appendix 4 Analysis of bed requirements</p> <p>Appendix 5 Pathways http://howis.wales.nhs.uk/sitesplus/861/page/75714</p> <p>Appendix 6 WAAASP feedback</p> <p>Appendix 7 Simulation and anaesthetic training</p> <p>Appendix 8 Society of Vascular Staff Nurse Portfolio of Competency and competency record for ward 3</p> <p>Appendix 9 Agenda of vascular nurse training days</p> <p>Appendix 10 Vascular admissions</p> <p>Appendix 11 Vascular Society – A Best Practice Clinical Care Pathway for Peripheral Arterial Disease</p> <p>Appendix 12 Vascular outliers</p> <p>Appendix 13 Theatre cancellations</p> <p>Appendix 14 Emergency theatre activity</p> <p>Appendix 15 Readmissions within 30 days</p> <p>Appendix 16 Major procedures</p> <p>Appendix 17 Carotid Endarterectomy pathway http://howis.wales.nhs.uk/sitesplus/861/page/75714</p> <p>Appendix 18 Amputations</p> <p>Appendix 19 Outpatient attendances – new and review</p> <p>Appendix 20 PTL</p> <p>Appendix 21 Activity lost due to consultants not participating in the on-call rota April to September 2019</p> <p>Appendix 22 RTT and FUWL review and actions</p> <p>Appendix 23 Follow up waiting list</p> <p>Appendix 24 Concerns</p> <p>Appendix 25 Patient feedback</p> <p>Appendix 26 MDT SOP</p> <p>Appendix 27 Rapid improvement event feedback and actions</p> <p>Appendix 28 North Wales response from Vascular society May 2020</p> <p>Appendix 29 BCUHB North Wales Joint Vascular Surgery and Vascular Imaging COVID-19 Pathway</p> <p>Appendix 30 BCU Vascular Service Improvement Plan</p> <p>Appendix 31 North Wales CHC Vascular Services Final Report March 2020</p> |

Argymhelliad / Recommendation:

The Board is asked to:

1. Approve the establishment of a Task and Finish Group, chaired by the Executive Medical Director, to oversee the implementation of the vascular services review recommendations.
2. Request the Task and Finish Group to consider the draft action plan to identify any further required actions and recommended key performance indicator.
3. Agree progress reporting arrangements are via the Quality, Safety and Experience committee.
4. Commission an external, independent multi-disciplinary assessment of the North Wales Vascular Service provided across the Health Board to assess the quality and safety of the service and patient outcomes.

Please tick one as appropriate (note the Chair of the meeting will review and may determine the document should be viewed under a different category)

| | | | | | | | |
|--|-------------------------------------|---|--------------------------|--|--------------------------|--------------------------------------|--------------------------|
| Ar gyfer penderfyniad /cymaradwyaeth For Decision/ Approval | <input checked="" type="checkbox"/> | Ar gyfer Trafodaeth For Discussion | <input type="checkbox"/> | Ar gyfer sicrwydd For Assurance | <input type="checkbox"/> | Er gwybodaeth For Information | <input type="checkbox"/> |
|--|-------------------------------------|---|--------------------------|--|--------------------------|--------------------------------------|--------------------------|

Sefyllfa / Situation:

Following the centralisation of the service in April 2019, the Board received an update in July 2019. It commented on the lack of outcome data available due to the early stages of the service implementation. It was therefore agreed that a report be prepared for the Board around 12 months from implementation.

At its meeting in November 2019 the Board received an update on the planned service review of the centralised vascular services. The service review was expected to be completed by March 2020 following additional executive and clinical team discussion, analysis of new national data and external specialist clinical advice to help prepare actions arising from the review.

The principle objective of the review was to assess the impact of the vascular services provided across the North Wales Vascular Network and incorporated the following:

- a) A review of the current provision and delivery of vascular surgery services in North Wales following the implementation of a centralised service in April 2019.
- b) The safety and accessibility of vascular services for all patients in the North Wales Vascular Network.
- c) The risk management and clinical governance arrangements of the North Wales Vascular Network.
- d) To identify lessons that can be learnt from these events: both examples of good practice and areas where improvement is required
- e) Clear recommendations for the consideration of the Health Board as to possible courses of action which may be taken to address any specific areas of concern which have been identified.

Cefndir / Background:

The formation of the new North Wales Vascular Network is designed to make the service safe and sustainable, reducing the risk of the loss of local vascular services from North Wales.

The detail of the review and its findings is set out in the following pages. The review identifies six areas for further work as follows:-

- Alignment of vascular inpatient bed base
- Pathways of care
- Engagement and Communication
- Quality and Safety
- Access to the Service
- External Review

The specific actions for each area are detailed in the Action Plan which is attached as Appendix 30

Additional Note:

The original timeline for conclusion of this review was March 2020. The March deadline was extended to align with the anticipated Community Health Council's own report which is now attached at Appendix 31 and then the unprecedented pressures of the COVID-19 pandemic.

During this pandemic the vascular service has reviewed activity in line with national guidance to ensure that it continues to deliver life and limb threatening interventions.

A chronology of events has been compiled to support the content of the report. (Reference 1). Feedback on the review has been received from the Vascular Society of Great Britain and Ireland and is attached (Reference 2).

Asesiad / Assessment & Analysis

Strategy Implications

This review examines the centralisation of vascular service at Ysbyty Glan Clwyd (YGC) to deliver a clinically approved safe service for complex and major arterial work at the hub supported by appropriate localised services at Bangor and Wrexham.

Financial Implications

The scope of this review did not include financial implications.

Risk Analysis

Risk assessments have been undertaken as part of the governance framework of the vascular network and are recorded within the report.

Legal and Compliance

The report reviewed compliance with national benchmark standards and has also been shared with the vascular society.

Impact Assessment

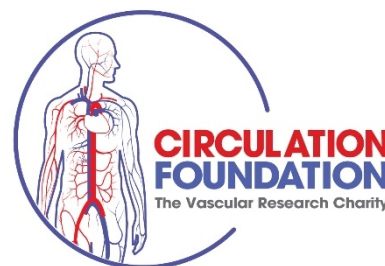
The actions following this report will include a robust communication and engagement strategy that will identify and address any areas of inequality.

Reference 1 Chronology of Events

| Chronology of vascular centralisation – BCUHB | |
|---|--|
| January 2013 | Healthcare in North Wales is Changing published |
| January 2013 | In January 2013, following public consultation, the Health Board decided that major and complex in-patient arterial surgery and emergency vascular surgery would move onto a single site at Ysbyty Glan Clwyd (YGC). Recognising that renovation of the site was required, a phased approach which temporarily supported two arterial centres: Ysbyty Gwynedd (YG) and Wrexham Maelor Hospital (YWM), was employed. |
| September 2014 | Interim 2 site model with arterial services at Wrexham Maelor Hospital and Ysbyty Gwynedd |
| 2015 | Publication of the Royal College of Surgeons review into vascular services in North Wales. <i>The review team's recommendation was that a single hub model should be implemented as soon as possible in North Wales. The review team considered that this development would be in the best interests of delivering safe and sustainable vascular services to the patients of North Wales. Which site is chosen as the hub will ultimately be a decision for the Board but it was the opinion of the review team that the Glan Clwyd (Central) site was probably the most appropriate choice for the arterial site.</i> |
| October 2016 | Vascular Implementation Task & Finish Group first meeting (CHC in attendance) |
| November 2016 | Vascular plans presented to and accepted by LMC (BMA committee) |
| January 2017 | Vascular plans presented to and accepted by CHC (Geoff Lang and Dr Evan Moore) |
| April 2019 | Commencement of Mr Laszlo Papp, Mr Aidan Raudonaitis and Mr Wisam Taha – Vascular Consultants |
| April 2019 | Centralisation of arterial services to Ysbyty Glan Clwyd (commencing with 12 beds) whilst maintaining 15 beds in Ysbyty Gwynedd |
| July 2019 | Resignation of Professor Dean Williams, Vascular Consultant |
| August 2019 | Commencement of Mr Faisal Shaikh, NHS Locum Consultant |
| September 2019 | Resignation of Shiban Chaku, NHS Locum Consultant |
| September 2019 | Phased opening of Ysbyty Glan Clwyd beds to funded establishment of 18 beds completed |
| September 2019 | Suspension of new non arterial vascular admissions to Ysbyty Gwynedd by the Hospital Medical Director following concerns raised by the vascular consultants refusing to cover those 16 beds due to perceived junior doctor staffing |
| October 2019 | Commencement of Mr Ruwan Fonseka, NHS Locum Consultant |
| December 2019 | Rapid Improvement Event held with stakeholders across the Health Board. Areas requiring progress identified. |

Reference 2**Letter on 1st May 2020 from Vascular Society**

OF GREAT BRITAIN AND IRELAND



The Vascular Society
 C/o Executive Business Support Ltd
 Davidson Road,
 Lichfield, Staffordshire
 WS14 9DZ
 E-mail: admin@vascularsociety.org.uk
 Website: www.vascularsociety.org.uk
 Telephone: 0207 2057150

Dear Ms Clark

I apologise for the delay in our response. I am sure that you can understand, in these unprecedented times when we are being called to support the challenge of the COVID pandemic, paperwork is taking a bit of a back seat while we establish new ways of working.

I have had the opportunity to read your report and my comments reflect those of my colleagues on the exec committee of the Vascular Society. I would like to commend you on the thoroughness of your review.

The objective of your report was to review the current provision and delivery of Vascular Services in North Wales after the implementation of centralisation in April 2019, and in particular to assess the safety and accessibility of the service for the patients of North Wales, and to review the risks and clinical governance structures.

As with all centralisation programmes, there were inevitable teething problems. The transition stage, running two sites was unpopular with the trainees and demonstrated the vulnerability of a service that depended on a single surgeon. The original plans shared the vascular beds across the two sites with 15 beds at YG. Clearly, work is required to create the full establishment of beds at the nominated arterial centre at YGC – Rhyl.

I congratulate you on your pathways that encourage greater use of out -patient care and the consequent reduction in length of stay. This is in line with your government's aim. However, with 3 different models of care for the diabetic foot service, conflict and miscommunication are inevitable. I would recommend that you engage with commissioners, primary and secondary care to develop common pathways of care with agreed protocols with greater involvement of the MDFT in managing these complex patients.

Patients need to be seen close to home and well structured job plans for your Vascular Surgeons should include up to 40% of their time at the spoke hospitals to allow for this.

Outcomes do need to be monitored and I would encourage the use of registry such as the NVR , PEDW and the diabetic audit to monitor activity and to benchmark against equivalent units in England.

Communication is key to good practice and I would recommend developing a formal communication strategy to support the changes you have implemented.

The Vascular Society would like to congratulate you on the progress you have made towards centralisation. Your model is in line with the recommendations of the Vascular Society and the Provision of Vascular Services 2018 document. I am sure that the service will continue to adapt. That you have managed to recruit Consultants to the service is a strong indication that you are on track to develop an excellent Vascular service for the patients of North Wales.

Kind regards

A handwritten signature in black ink, appearing to read 'Sophie Renton', written in a cursive style.

Sophie Renton
Secretary of the Vascular Society



Review of the North Wales Vascular Network

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Review of the North Wales Vascular Network

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| 1. | PURPOSE |
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The principle objective of this review is to assess the impact of the vascular services provided across the North Wales network and will incorporate the following:

- a) A review of the current provision and delivery of vascular surgery services in North Wales following the implementation of a centralised service in April 2019.
- b) The safety and accessibility of vascular services for all patients receiving care from the North Wales Vascular Network.
- c) The risk management and clinical governance arrangements of the North Wales Vascular Network.
- d) To identify lessons that can be learnt: both examples of good practice and areas where improvement is required
- e) Clear recommendations for the consideration of the Health Board as to possible courses of action which may be taken to address any specific areas of concern which have been identified.

Where there are areas for improvement, steps will be taken to develop the Health Board's services and strengthen organisational systems.

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| 2. | BACKGROUND |
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The Vascular Society of Great Britain and Ireland produced recommendations in its publications "The Provision of Services for Patients with Vascular Disease" in 2015 and 2018.

The recommendations in brief state:

- High quality vascular care in the UK is best delivered with the establishment of integrated vascular networks with a single site for major arterial surgery and complex endovascular interventions. The network hospitals continue to provide vascular clinics; diagnostics; interventions such as renal access and varicose vein procedures; review of in-patient vascular referrals; and rehabilitation. Day-case (23-hour stay) peripheral angioplasty and stenting can also be performed at these local sites. The pre- and post- procedure care related to these interventions should be delivered locally whenever possible.

- This network model provides: Improved clinical outcomes with increasing volumes of procedures; sustainable on-call rotas; enhanced training/educational opportunities for junior doctors and the multi-professional team; and economic benefits through rationalisation of expensive technology and staff in hospitals throughout the network.

The model adopted by the Health Board was informed by advice from a Royal College of Surgeons invited review in 2015 and guidelines from the Vascular Society of Great Britain and Ireland. Across all of the UK, including South Wales, this model is accepted. Aneurin Bevan's Integrated Medium Term Plan for 2019/20 - 2021/22 outlines continued work with Cardiff and Vale, and Cwm Taf University Health Boards for the centralisation of arterial vascular work within Cardiff.

In January 2013, following public consultation, the Health Board announced that major and complex in-patient arterial surgery and emergency vascular surgery would move onto a single site at Ysbyty Glan Clwyd (YGC). Recognising that renovation of the site was required, a phased approach which temporarily supported two arterial centres: Ysbyty Gwynedd (YG) and Wrexham Maelor Hospital (YWM), was employed. The implementation of the centralised service commenced in April 2019. Based on activity prior to reconfiguration, a total of 300 complex cases per year, representing 20% of activity, would be delivered on a single site. The other 80% of activity that consisted of outpatient consultations, investigations, diagnostic procedures, renal dialysis access surgery, varicose vein treatments and day case surgeries would continue to be delivered at all three acute sites.

The service model generated concern amongst some stakeholders and community representatives, particularly in the West. This was noted in the consultation document (Appendix 1) All concerns raised have been reviewed by the Health Board. The single complex site service model was mandated by the Vascular Society for Great Britain and Ireland; and The Royal College of Surgeons. The service model was supported by Public Health Wales through the Welsh Abdominal Aortic Aneurysm Screening Programme (WAAASP), Welsh Government, the North Wales Local Medical Committee (LMC), the majority of clinicians and the North Wales Community Health Council (CHC).

| | |
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| 3. | CURRENT PROVISION AND DELIVERY OF VASCULAR SURGERY SERVICES |
|-----------|--|

BCUHB Vascular Model (Appendix 2)

Vascular services provide diagnostics and treatment for patients with vascular disease. The principal specialities involved are Vascular Surgery and Interventional Vascular Radiology.

The overarching aim of elective and 24/7 emergency vascular services is to provide evidence-based models of care that improve patient diagnosis and treatment and ultimately improve mortality and morbidity from vascular disease.

The service will deliver this aim by:-

- Improving the patient experience, providing equity of access to the full range of vascular diagnostics and interventions and ensuring that patients are receiving a high quality of service, with access to the most modern techniques and skilled staff.
- Developing and sustaining the resilience of vascular services and the workforce providing those services.
- Improving mortality and morbidity rates for people with vascular disease and improving survival rates following hospitalisation.
- Improving complication rates following a vascular admission (short and long term).
- Reducing mortality rates by preventing death from ruptured abdominal aortic aneurysm, stroke, lower limb ischaemia and tissue loss and vascular trauma.
- Providing early and specialist intervention and treatment to achieve network reductions in the incidence of stroke due to carotid artery disease and lower limb amputations related to peripheral arterial disease and diabetes.
- Supporting other services in the efficient management of vascular complications and emergencies.
- Further enhance joint working with the diabetes and podiatry services across North Wales to optimise foot care, and prevent major amputation.

Research shows that centres with low volumes of activity are more likely to have higher complication rates as the multi-disciplinary team have less exposure to complex patients. When major arterial work is consolidated to a single site, the increased activity provides greater exposure for MDT training, enhanced surgical outcomes with reduction in complication and mortality rate. It is accepted that the benefits of transfer to a specialised unit outweigh the downsides of the transfer, in the majority of patients. This model continues to be supported by evidence and is mandated through national specifications in England and is being promoted through the 'Getting it Right First Time' programme (Appendix 3).

With a single centre offering emergency vascular work, on-call can be delivered as a single rota enabling 24/7 access to a vascular surgeon and all associated support services.

Creation of a centralised arterial unit is also a prerequisite to receive Royal College Approval for Vascular Consultant appointments and in order to care for patients from the Welsh Abdominal Aortic Aneurysm Screening Service (WAAASP).

Service provision prior to centralisation of arterial vascular services

Prior to April 2019, the interim model operated over two major arterial sites (YWM and YG) with YGC providing some spoke vascular services. Recruitment of substantive vascular consultants was challenging; Ysbyty Gwynedd had been reliant on a long term locum consultant.

| Pre-centralisation | YGC | YG | YWM | total |
|-----------------------------|-----|----------|-----|-------|
| Funded WTE consultant posts | 2 | 2 | 2 | 6 |
| Vacant posts | 0 | 0 | 0 | 0 |
| Substantive appointment | 2 | 1(LTFT*) | 2 | 5 |
| Locum appointments | 0 | 1 | 0 | 1 |

*LTFT – Less Than Full Time

Advertisements for a consultant surgeon had received no applicants; the Royal College of Surgeons advised that they would not approve any further posts which were not part of a modern hub and spoke arrangement.

Both YG and YWM performed emergency arterial vascular surgery in normal working hours. Neither site was able to offer a 24 hour a day, seven day a week service. Emergency care out of hours was delivered through a 1 in 6 non-resident on-call rota alternating between each site. **For a full week one site provided emergency out of hours care which meant that 50% of the time emergency patients from Gwynedd had to be transferred to Wrexham and vice versa.** The model did not enable surgeons to be responsive to emergencies as their elective work continued during normal working hours.

This was highlighted by the Royal College of Surgeons review (2015) in the following extract:

The review team considered that the vascular teams have allowed their own personal views on the best way to deliver safe vascular care to their local population to be prioritised over what is in the best interests of patients across North Wales. The review team were concerned that it was some interviewees' perception that the vascular surgeons on the East and West sites have allowed their local circumstances and living preferences to impact on the decision making processes for reconfiguration.

It is the review team's recommendation that a single hub model should be implemented as soon as possible in North Wales. The review team considered that this development would be in the best interests of delivering safe and sustainable vascular services to the patients of North Wales. Which site is chosen as the hub will ultimately be a decision for the Board but it was the opinion of the review team that the Glan Clwyd (Central) site was

probably the most appropriate choice for the arterial site at this time. This was because of the geography of North Wales and the current infrastructure and available capacity at Glan Clwyd. If chosen as the arterial site then the Board would need to install a hybrid theatre as soon as possible.

The review team was of the strong opinion that patient safety was being compromised with a two site model and that the Board could not afford to delay the decision to move to a one site model any longer. If the Board is unable to secure the agreement of staff within the next three months to identify and support a single hub site then a larger network including vascular centres in England and South Wales to deliver vascular services should be considered.

The review team also raised concerns around the management of two vascular emergencies on the two hub sites at the same time, given the distance and the reliance on the goodwill of the surgeons. Their message clear, that this was not a safe or sustainable model and needed to change.

A 'lower limb' service at YG managed the care of patients with diabetic foot disease and, difficult to manage lower limb tissue loss and limb ischaemia from across North Wales. The BCUHB vascular model states that given the well-established and widely recognised diabetic foot service at Ysbyty Gwynedd, there is a clear need to protect and consolidate this service and its outcomes. It was expected that this service would continue and admit stable patients either by direct clinical referral or from the arterial centre. The only change being the transfer of major lower limb surgical arterial procedures to the hub.

Service provision post centralisation of arterial vascular services (April 2019 onwards)

As per recommendations the major arterial site at YGC houses a vascular hybrid theatre and dedicated ward providing all emergency and elective major arterial surgery and complex endovascular interventions. This model is supported by the reconfiguration of consultant job plans to enable eight vascular surgeons to be available to support emergency work during normal working hours, daily ward rounds, and a 1 in 8 non-resident out of hours on call with prospective cover.

Outpatient consultations, investigations, diagnostic procedures, renal dialysis access surgery, varicose vein treatments and day case surgeries continue to be delivered at all three acute sites.

Summary of services

All major theatre sessions are undertaken in the newly built hybrid theatre in YGC; day case theatres continue at all sites. There has been an increase in the overall number of theatre sessions, both major and day case, and outpatient sessions following the service change.

Operating sessions

| Pre-centralisation | Day Case | Major |
|-----------------------------|------------|----------|
| Wrexham Maelor | 3.5 | 4 |
| Ysbyty Gwynedd | 1 | 4 |
| Glan Clwyd | 1 | 0 |
| Total lists per week | 5.5 | 8 |

| Post-centralisation | Day Case | Major |
|-----------------------------|------------|-----------|
| Wrexham Maelor | 3.5 | 0 |
| Ysbyty Gwynedd | 2 | 0 |
| Glan Clwyd | 1 | 10 |
| Total lists per week | 6.5 | 10 |

Outpatient clinic sessions

| Pre-centralisation | Clinic |
|--------------------------------|----------|
| Wrexham Maelor | 4 |
| Ysbyty Gwynedd | 3 |
| Glan Clwyd | 2 |
| Total sessions per week | 9 |

| Post centralisation | Clinic |
|--------------------------------|-------------|
| Wrexham Maelor | 4 |
| Ysbyty Gwynedd | 3 |
| Glan Clwyd | 3.5 |
| Total sessions per week | 10.5 |

Vascular inpatient bed base

A review of the North Wales vascular caseload was undertaken as part of the planning for the reconfiguration of services (Appendix 4). Based on this it was deemed that 33 beds were required to deliver the service. Funding for an 18 bedded vascular ward in YGC was identified with maintenance of 15 beds for vascular patients in YG to support the lower limb service. The YG in-patient base would support repatriation and assist those patients having non-arterial surgery (e.g. fistula formation) who would not be suitable for day case and wished to avoid travelling to the arterial centre.

The dedicated vascular ward opened in April 2019, initially with 12 beds and subsequently opened to the full establishment of 18 beds in September 2019.

Initially, not all consultants fully engaged with the reconfiguration and job planning process; this is no longer the case. As a result, juniors working with specific consultants failed to gain adequate exposure to vascular procedures. Juniors were offered the ability to work with other consultants across YG and YGC; they requested to be transferred from YG to YGC. This impacted the ability of the YG site to maintain beds for vascular patients. Since September 2019 patients suitable for admission to YG were transferred to the hub for management at the request of the vascular surgeons based at YG. This inevitably meant that more patients than originally anticipated were unable to remain locally and required transfer to the hub.

Pathways

Clinical pathways and standard operating protocols are essential to ensure standardisation of care. A series of meetings, chaired by the newly appointed Clinical Director for the North Wales Vascular Network, were held to agree pathways prior to centralisation. Key stakeholders were invited; attendance was poor. Pathways were circulated within the

group for comments, and subsequently implemented with a 4-month review period (Appendix 5).

Clinicians raised concerns with different aspects of the pathways following implementation, mainly relating to the wording and ability to directly access the vascular team. This was addressed through a series of meetings, to clarify pathways and agree amendments; and the provision of a pager for the vascular consultant on-call. There has been significant progress with agreeing pathways for the management of vascular access for renal patients in conjunction with the renal teams and the investigation and management of carotid disease with the stroke teams. A rapid improvement event in December 2019 had an excellent response from all sites and multi professional involvement to discuss ways forward.

A recent quality assurance visit from the Public Health Wales Welsh Abdominal Aortic Aneurysm Screening Programme team in November 2019 (Appendix 6) provided positive feedback regarding the significant progress made in implementing a safe, sustainable service. There is further work being done to improve the time from referral to treatment for patients with abdominal aortic aneurysms.

Further work is ongoing to improve the pathways for the following:

- Patients requiring angioplasty
- Patients that use drugs intravenously presenting with groin abscesses
- Patients with lower limb tissue loss including diabetic foot
- Patients post major arterial surgery requiring rehabilitation
- 'palliative' patients

Management of the diabetic foot

The Vascular Society Guidelines for the provision of services for patients with vascular disease (2018) describes how patients with diabetes form a significant and increasing part of a vascular practice. The care of patients with diabetic foot problems across the modern vascular network involves both arterial and non-arterial centres. NICE clinical guidance (NG19) details the service that health providers should have in place to prevent and manage diabetic foot problems. It recommends that service providers should ensure that there is a foot protection service for preventing diabetic foot problems and for treating and managing diabetic foot problems in the community. Together with this there should be a multidisciplinary foot care service for managing diabetic foot problems in hospital and in the community that cannot be managed by a foot prevention team. The multidisciplinary foot team should be led by diabetologists and includes podiatrists, specialist nurses, orthotists, vascular surgeons, orthopaedics foot surgeons, radiologists and microbiologists.

In 2016, following discussions with orthopaedic and vascular surgeons a decision was made that patients with diabetic foot disease across north Wales requiring specialist management would be cared for at Ysbyty Gwynedd by the West Vascular Team. Further, lack of provision for patients with vascular related lower limb disease in the area served by Ysbyty Glan Clwyd at the time, meant that complex limb salvage conditions –

ischaemia, infectious leg wounds/ulcers (leading to sepsis), diabetic foot and venous insufficiency were also being cared for by the team at Ysbyty Gwynedd. This was the specialist interest of one of the consultant vascular surgeons.

The Health Board had three separate models of care for patients requiring limb salvage services across North Wales. At Wrexham Maelor Hospital patients with diabetic foot disease were under the care of a Trauma & Orthopaedic Surgeon; at Ysbyty Glan Clwyd under the care of Endocrinology and at Ysbyty Gwynedd patients were under the care of the Consultant Vascular Surgeons.

Whilst the management of diabetic foot services is not part of an arterial model for vascular services, the service change has highlighted the lack of robust protocols and clear pathways for the management of patients with diabetic foot disease requiring specialist management across the Health Board. The resignation in October 2019 of the vascular consultant leading the service in Ysbyty Gwynedd exposed the fragility of the service provided and reinforced the Royal College of Surgeons and the Vascular Society comments regarding the sustainability and depth of service and the urgent need for this investment in both staff and facilities to create a centralised tertiary unit.

Repatriation and Rehabilitation

The majority of elective patients at the arterial centre are fit to be discharged home relatively soon after treatment and for these repatriation is not a major issue. Some vascular patients have other co-morbidities which require input, including diabetes, renal, stroke and care of the elderly. Where patients have on-going non-vascular healthcare needs, repatriation is a necessary component of care to enable care closer to home. Vascular input can continue to be provided on all 3 sites.

Work continues to support access to rehabilitation and admission to local community hospitals. Repatriation has been and continues to be challenging due to bed pressures across all the hospital sites.

WORKFORCE

Vascular Consultants

The funded establishment for vascular consultants has been increased from 6 to 8 WTE. There are currently 5 substantive consultants and 3 locum consultants (1 agency and 2 NHS locums). Of the 8 consultants, 7 participate on the on-call rota, which is a 1 in 8 rota. Post-centralisation 2 consultants who had been based at YG resigned (1 LTFT and 1 NHS locum), both of these posts have been recruited to, as well as appointing to the additional 2 funded posts. In a national picture where centres have experienced difficulty in attracting vascular surgeons, the Health Board has recruited to 4 posts. The hybrid theatre and centralised model were influencing factors.

| Post-centralisation | BCU |
|-----------------------------|-----|
| Funded WTE consultant posts | 8 |
| Vacant posts | 0 |
| Substantive appointment | 5 |
| Locum appointments | 3 |

Junior Doctors

This incorporates doctors in training from foundation year to specialist trainee and non-training posts with variable experience. Middle grade posts would include training and non-training posts with a minimum of 4 years' experience within a specialty. Junior doctor support is vital to ensure patient safety within a ward base and to support consultant activity.

| Funded : Vacant | YGC | YG | YWM | total |
|--|-----|----|-----|-------|
| Foundation year (FY) posts & Specialist trainee (ST) 1-3 posts | 2 | 1 | 1 | 4 |
| Middle grade posts | 3 | 1 | 1 | 5 |
| Locum appointments | | | | |

Vascular middle grade posts are part of the general surgical rota on each site and are required for vascular inpatients in Ysbyty Gwynedd, together with outpatients, diagnostics, ward referrals and day case surgery in both Ysbyty Gwynedd and Wrexham Maelor Hospital.

The surgical directorate in Ysbyty Gwynedd have been unable to provide consistent medical cover at FY/ST1-3 level and no cover at middle grade level to vascular since the beginning of August 2019. Consultants based at YG did not support cross-site working for their juniors and as a result, the juniors were unable to achieve their educational requirements and requested transfer to YGC site. This led to closure of the beds to vascular admissions as previously highlighted. A shared care model is being developed to enable the beds to be re-opened for appropriate patients.

Ysbyty Glan Clwyd Vascular Ward - Ward nursing establishment

The ward currently has the following registered nursing staff:

| Band | Establishment | Current working WTE | Remaining WTE vacancies |
|------------------|-----------------------------|---------------------|---------------------------------------|
| 5 | 15 | 7.74 | 7.26 |
| 6 | 2.0 | 1.0 | 1.0 |
| 7 | 3.0 (including ANP and CNS) | 2.0 | 1.0 (appointed candidate on 16/01/20) |
| Total WTE | 20.0 | 10.74 | 9.26 |

The ward currently has the following allied health professionals:

| Band / Role | Establishment | Current working WTE | Remaining WTE vacancies |
|--------------------------------------|---------------|---------------------|-------------------------|
| Band 6 Physio | 0.8 | 0 | 0.8 |
| Band 6 Occupational Therapist | 0.8 | 0.8 | 0.0 |
| Band 6 Podiatrist | 0.4 | 0.4 | 0.0 |
| | | | |
| Band / Role | Establishment | Current working WTE | Remaining WTE vacancies |
| Band 2 HCSW | 8.2 | 5.64 | 2.56 |
| Band 3 Housekeeper | 1.0 | 1.0 | 0.0 |
| Band 2 Ward Clerk | 1.45 | 1.0 | 0.45 |

There are ongoing efforts to recruit Band 5 nursing staff to the vascular ward. The jobs are currently out to advert and closes on the 10th March 2020 with a provisional interview date of 24th March 2020.

4. SAFETY AND ACCESSIBILITY OF SERVICES

Training and simulation prior to centralisation

To maintain the knowledge and skills of staff based at YGC during the two site phase, staff from YGC travelled to YG every other week to undertake major vascular theatre sessions. Simulation training for major arterial scenarios and procedures was undertaken, including preparation and testing of protocols for use in the hybrid theatre (Appendix 7).

Simulation training at YGC



Nursing staff joining the ward are supported to achieve the Society of Vascular Staff Nurse Portfolio of Competency. The portfolio of competencies was designed by the Society of Vascular Nurses to be used to identify a nurse's development needs. It is used to guide current and future professional practice within the arena of vascular nursing. It is for nurses working in a ward or clinic setting, who are involved with the care of the vascular patient. Vascular nursing is varied and not every aspect of the competencies will be pertinent to practice, for these areas there is an opportunity to mark that particular competency as not applicable (Appendix 8 – Competencies for ward nurses).

To prepare to open the new vascular ward at YGC, nursing staff undertook training days on 18th March and 29th March 2019 on a variety of subjects including:

- vascular competencies
- the roles of the multidisciplinary team members
- risk assessments
- conditions more common in patients with vascular and renal disease e.g. DVT
- general ward management e.g. Discharge planning

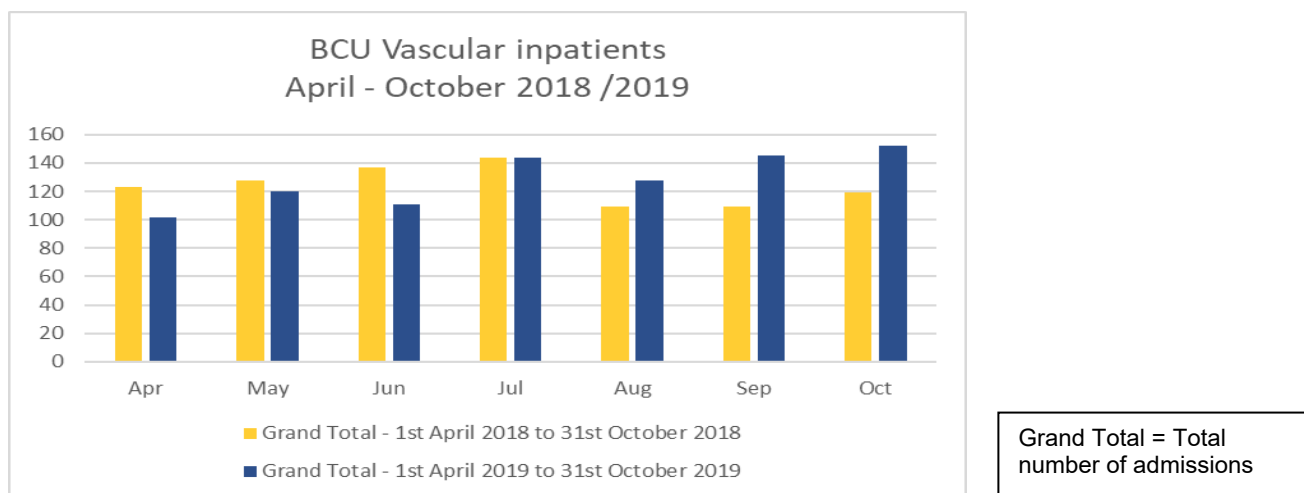
The agenda can be reviewed in appendix 9.



ACCESSIBILITY OF SERVICES

Inpatient care

Overall, the total number of inpatients has reduced over the period of April 19- October 19 when compared with the same period in 2018. The number of admissions varies on a monthly basis. Historically, the summer months saw less elective inpatient activity due to annual leave (Appendix 10).



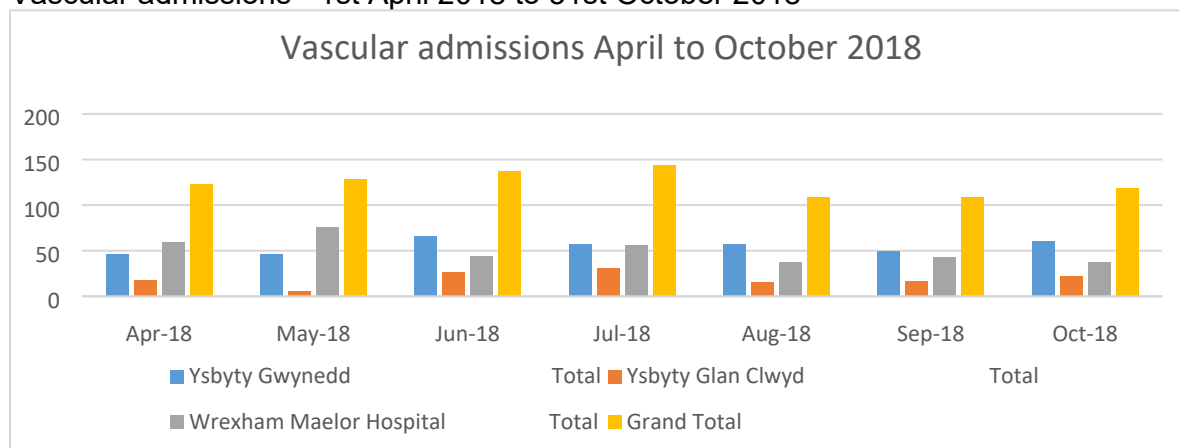
Introduction of pathways to encourage outpatient management rather than a traditional admission model has influenced this. The Vascular society supports outpatient/non-admitted pathways for specific groups of patients (Appendix 11), although this has been met with disapproval in certain groups suggesting patients receive a lower standard of care.

Evidence suggests patients admitted to hospital are at higher risk of hospital-acquired complications such as infection and thrombosis. Older patients are at risk of physical decompensation by removing their independence. All of these complications would lead to poorer outcomes for this complex group of patients. This has been demonstrated through the 'Get It Right First Time' (Appendix 3) which also identifies that prehabilitation and patient education and exercise programmes have a positive impact on symptoms and can avoid surgical intervention. Welsh government promotes this approach in 'A Healthier Wales':

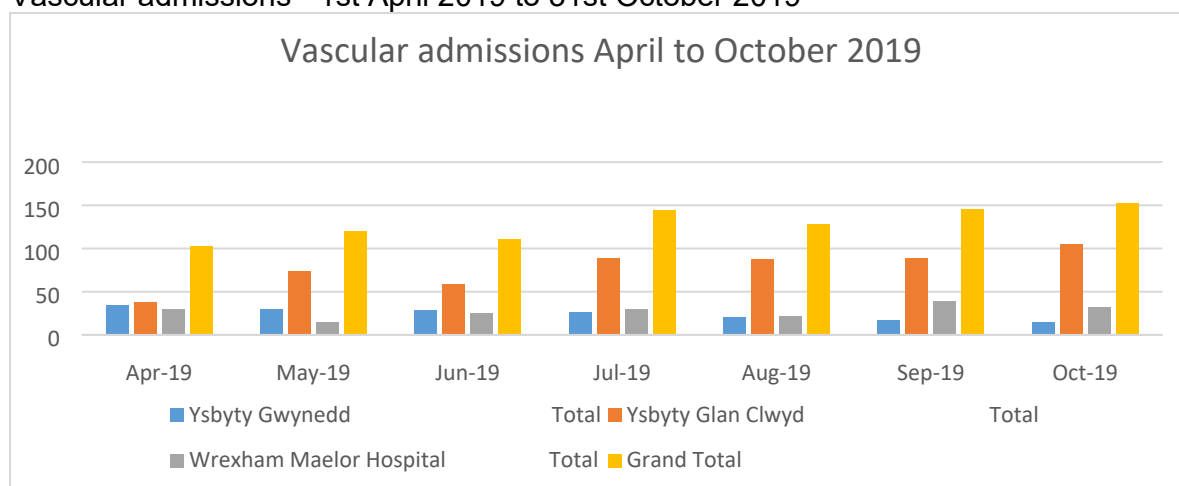
More services will be provided outside of hospitals, closer to home, or at home, and people will only go into hospital for treatment that cannot be provided safely anywhere else. This 'community-based approach' will help take pressure off our hospitals, reduce the time people have to wait to be treated, and the time they spend in hospital when they have to go there.

For reasons previously highlighted, YG has seen a reduction in admissions. The new model does not include funded beds at YWM. It is noted that patients are being admitted and coded as vascular at the YWM site. Following a review and series of meetings between vascular and hospital site management teams, it was recognised that these were patients who had failed to be discharged following a day case procedure; required a vascular opinion or were waiting for transfer to YGC for intervention. A shared care model is being implemented to denote patients requiring vascular input. The number of these patients has continued to decrease.

Vascular admissions - 1st April 2018 to 31st October 2018



Vascular admissions - 1st April 2019 to 31st October 2019

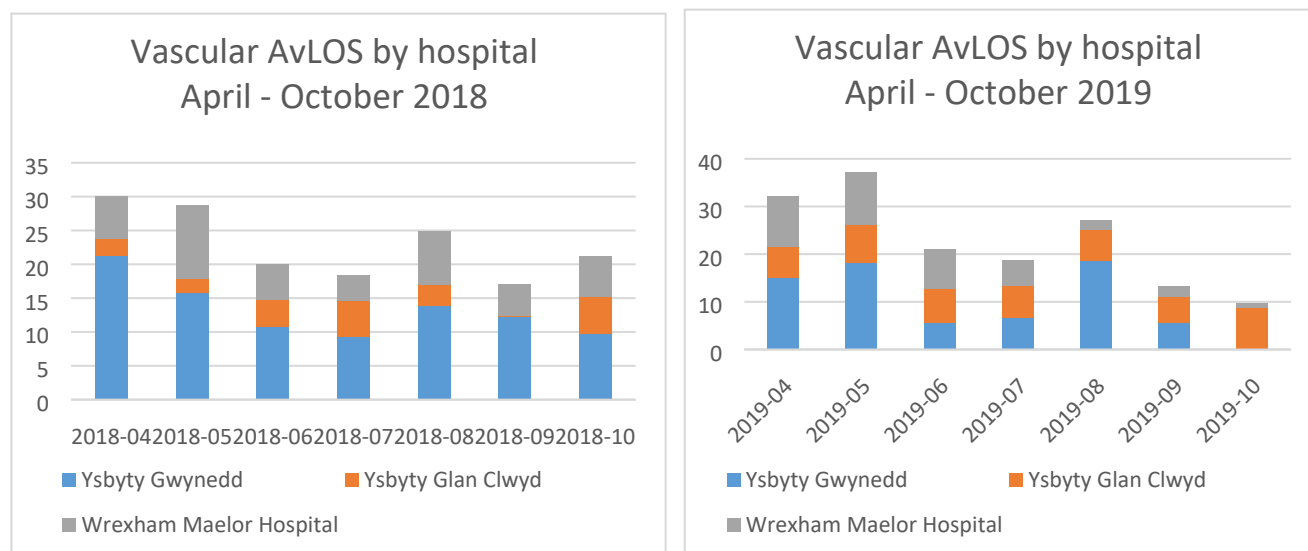


Average Length of Stay

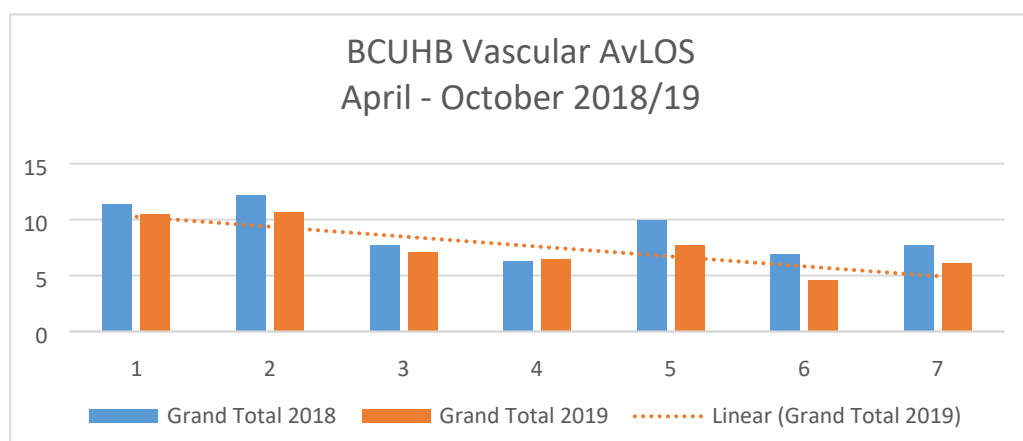
Prior to centralisation a significant difference was noted between average length of stay (AvLOS) per site. YG had a proportion of patients under the lower limb service receiving long term antibiotics and inpatient wound care. Patients requiring surgical vascular intervention are now transferred to YGC and often discharged home post procedure.

Datix reports have been submitted which denote a change in practice from admission for IV antibiotics and wound care to outpatient management with oral antibiotics and community tissue viability support. This change in practice was highlighted at the rapid improvement event in December and teams recognised cultural differences in their approach to patient care. There has been a 16% reduction in the overall AvLOS from 8.82 days to 7.4 days.

Vascular AvLOS by hospital 2018 / 19



This graph demonstrates the trend of reduced average length of stay for BCUHB vascular patients.



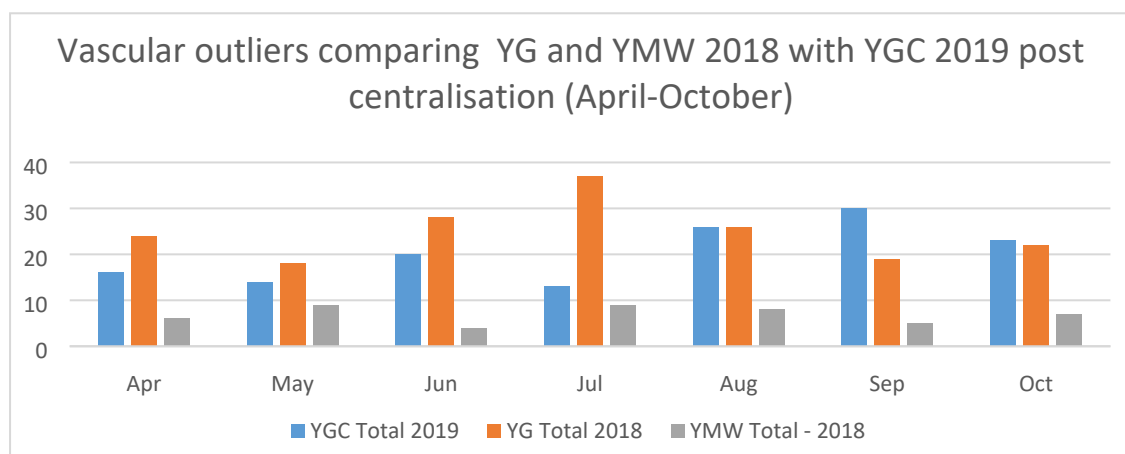
Grand Total = Average length of Stay per month.

Outliers

This denotes patients who are under the care of a specialist but are not cared for within their recognised bed base. Prior to centralisation, for patients admitted to Ysbyty Gwynedd, Dulas Ward was denoted for patients under the care of vascular consultants and for patients admitted to Wrexham Maelor Hospital; Fleming ward. Following centralisation, for patients admitted to YGC, ward 3 is the specialist vascular ward. There has been a reduction in the number of outliers within the vascular service (Appendix 12). The table and graph below highlights the number of transfers recorded for patients under the care of the vascular team in YG and WMH pre-centralisation (2018) and YGC post-centralisation (2019) for the months April – October.

Vascular surgery patients outlied

| Transfers Count | Transfer Date | | | | | | | |
|-----------------|---------------|-----|-----|-----|-----|-----|-----|-------|
| Ward | Apr | May | Jun | Jul | Aug | Sep | Oct | Total |
| YGC Total 2019 | 16 | 14 | 20 | 13 | 26 | 30 | 23 | 142 |
| YG Total 2018 | 24 | 18 | 28 | 37 | 26 | 19 | 22 | 173 |
| YMW Total 2018 | 6 | 9 | 4 | 9 | 8 | 5 | 7 | 48 |



Theatres

All major arterial and endovascular work is delivered at YGC. Elective work is undertaken every week day with access to theatre on an emergency basis at all times. There are 10 major vascular sessions per week at YGC and 6.5 day case sessions per week across the network. This work is overseen by a theatre utilisation planning cell. The planned care improvement group has work streams to improve the process of theatre scheduling and within the vascular team there is ongoing learning and development of booking and case mix; and communication in order to improve the governance of the service. This includes escalation, management of cancellations and utilisation of critical care resources.

The reporting of theatre utilisation to the Board was exempt for vascular services across BCUHB for 2019/20, utilisation will be reported as of 1st April 2020. The service is looking to benchmark with other centres in the UK in order to improve the utilisation and planning within the service.

Utilisation of theatres

Elective Activity

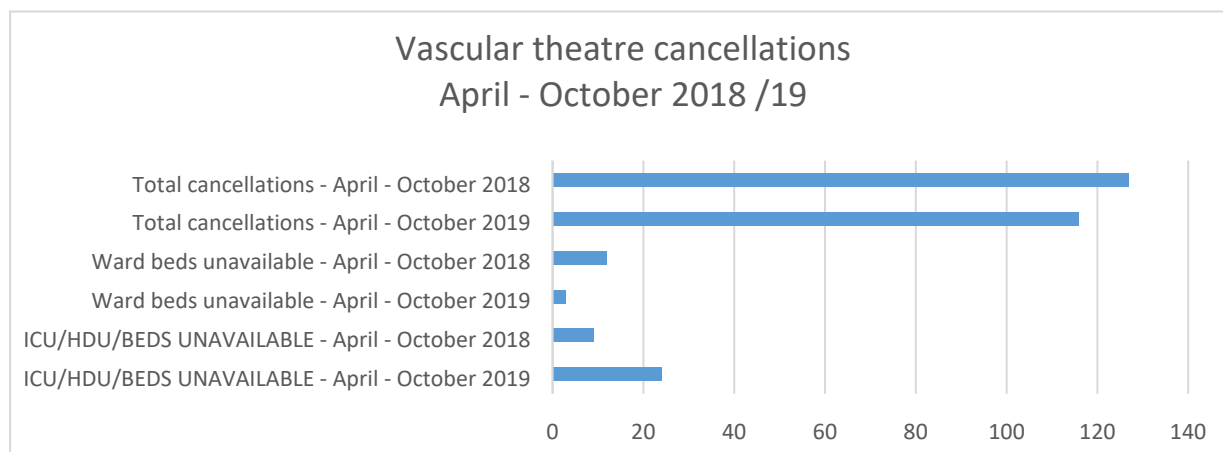
The additional capacity of theatre sessions has seen an increase in activity. As not all vascular consultants contributed to the on-call, elective activity was reduced to enable cover of the gaps generated. This impacted on the utilisation in the first 6 months of the service as demonstrated below. The planned session capacity in the hybrid theatre was 265 sessions from April to October 2019, the service delivered 263 sessions in that period.

The hybrid theatre was built specifically to support centralisation. Working in this environment was new to staff with recruitment of new staff to deliver the service. Any new service will require a settling in period to test policies and procedures, and to enable teams to develop effective working relationships, even with the best preparation.

| | List s | Sessions | Cases Completed | Cases Cancelle d | Utilisatio n | Cancellatio n rate | Booke d per sessio n |
|-----------------------------|-------------------|-----------------|----------------------------|---------------------------------|-------------------------|-------------------------------|---|
| April – Octobe r 2018 | 204 | 293 | 393 | 115 | 89% | 23% | 1.7 |
| April – Octobe r 2019 | 224 | 361 | 403 | 109 | 84% | 21% | 1.4 |

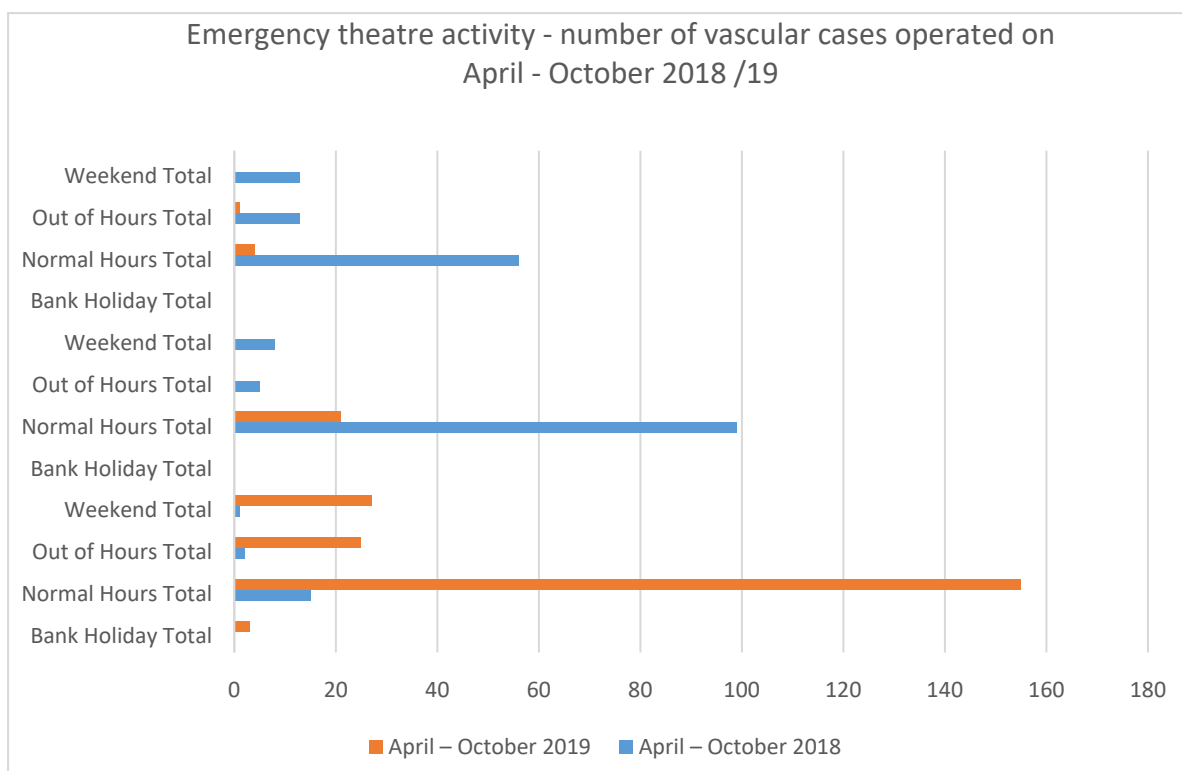
Theatre cancellations

The overall number of cancellations has reduced with centralisation. Prior to centralisation the most common reason for cancellation (Appendix 13) was to manage an emergency (27 episodes), followed by access to ward beds (12) and patients being unfit for surgery (12). Following service reconfiguration, access to critical care capacity has had the most impact. Funding for an additional critical care bed to support the vascular workload was included within the service model. Critical care at YGC has seen further increases in demand through implementation of other national pathways such as out of hospital cardiac arrest.



Vascular emergency theatre procedures

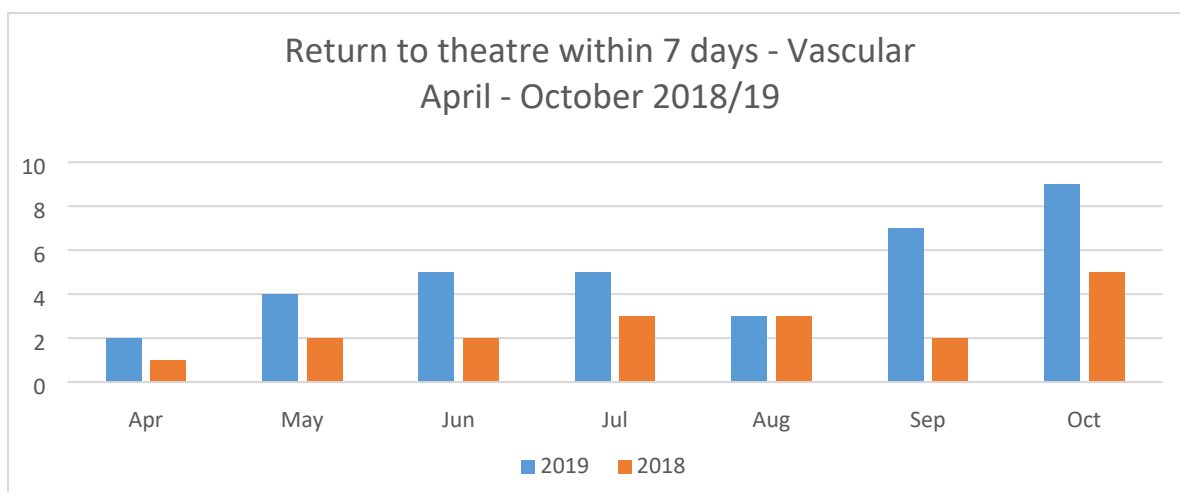
Following centralisation no emergency arterial surgery should occur on the spoke sites. The figures demonstrate a significant reduction in activity at the spoke sites. Some emergency work was expected at YG to support the lower limb service. Activity at YWM has included amputations of small digits. 2 cases of major amputations were undertaken at YWM outside of the agreed protocol. The remaining cases were within the agreed pathways for minor procedures (Appendix 14).



Return to theatre

There has been an increase in the return to theatres since the centralisation of arterial surgery to Glan Clwyd Hospital. There were a total of 33 cases that returned to theatre within 7 days between April to October 2019 compared with 20 cases between April – October 2018. Of these totals, 8 of the returns to theatre were for elective cases in April to October 2019 and 6 were for elective cases in April to October 2018.

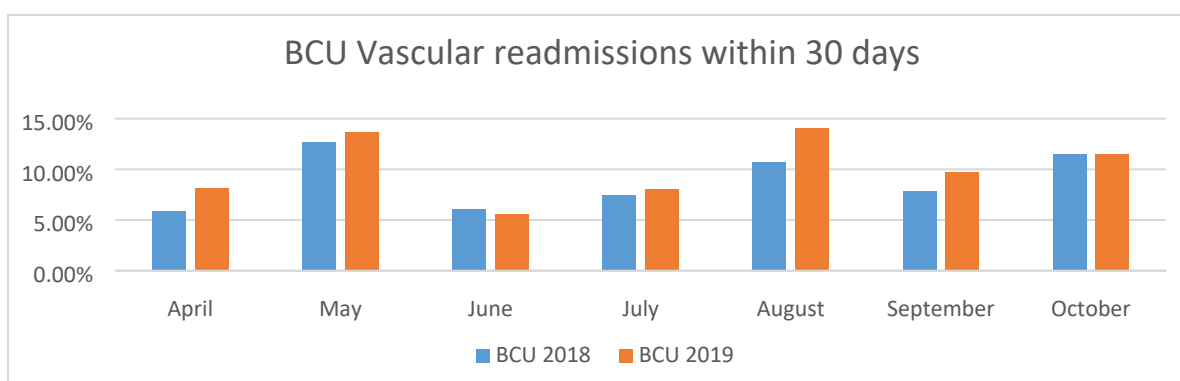
Of the 8 elective cases, 4 of the return to theatres related to two patients who had complications following aneurysm repair. 1 related to a central line insertion for a patient, 1 was an open embolectomy following an endarterectomy of the femoral artery and patch repair, 1 related to complications following the creation of a fistula and 1 was post-op bleeding following carotid endarterectomy. Several of the emergency returns were planned returns for continued debridement. Cases reported through Datix have been reviewed and many of these cases have been reviewed within the mortality and morbidity meetings (see later section).



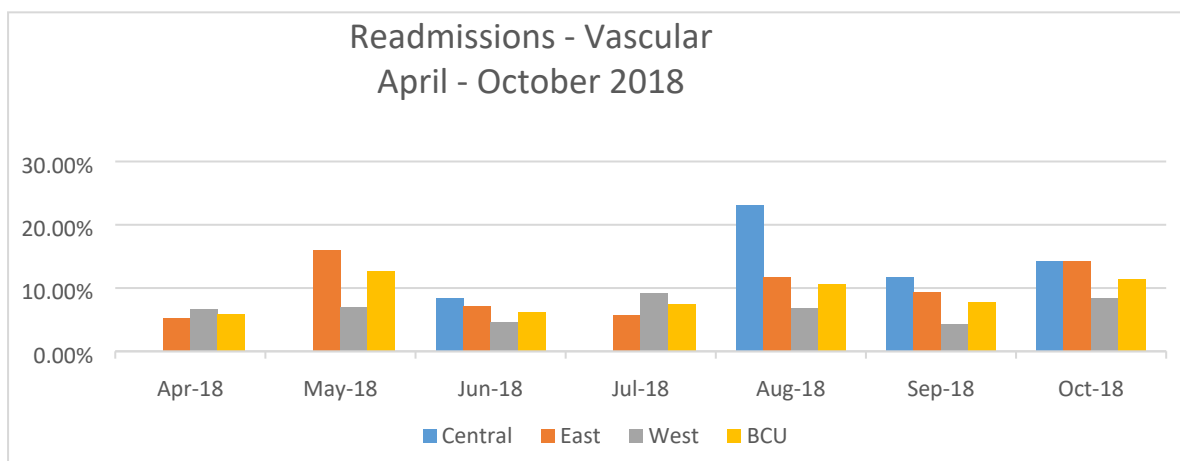
Readmissions

Readmission within 30 days continues to see considerable variation. The average rate increased post centralisation by 1.24% for the first 7 month period. The degree of variation at individual sites makes this data difficult to interpret as a marker of quality (Appendix 15).

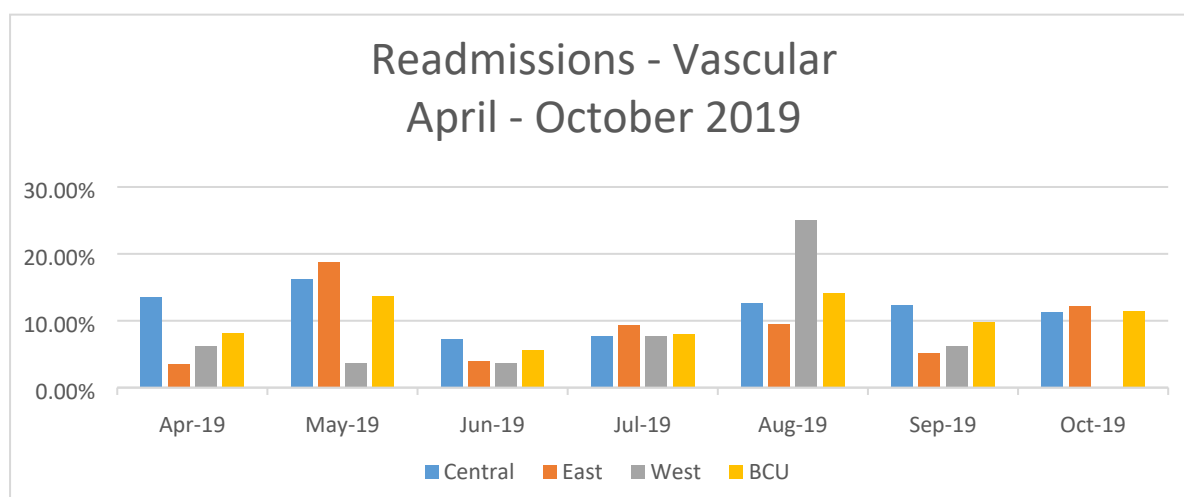
BCUHB Vascular readmissions within 30 days 2018/19



Readmissions within 30 days all sites - April – October 2018



Readmissions within 30 days all sites - April – October 2019



Critical Care Resource

Bed modelling identified the need for an additional (12th) ITU bed with appropriate medical and nursing resource. Nurse recruitment has impacted on the ability to consistently open this capacity. For the period reviewed in 2019, there has been an average of 10 patients per month requiring critical care support, equating to an average of 4.2 days. Of the 62 patients admitted, 37 were planned with 25 unplanned. All except 1 of the unplanned admissions were emergencies. This review identified that although critical care record and report this detail to the critical care network, it is not routinely reported through the internal Datix. This requires a change in practice to ensure that any unexpected admissions to critical care for elective surgical patients are reported on Datix, this is now being discussed with the planned care directorate.

As previously noted, lack of access to a critical care bed was the main reason for short notice cancellations. A review of the critical care provision required for vascular confirms that the capacity calculations are accurate. In spite of adequate funds to open 12 ITU beds, the shortage of critical care trained nurses has meant that the unit is not consistently able to open all beds. There has also been an unanticipated increase in the number of beds required through changes to the cardiac pathways, particularly for patients requiring critical care after an out of hospital cardiac arrest. As the primary percutaneous coronary intervention unit is at YGC, all of these patients are being directed to this site. A business case aligned to the recommendations from the All Wales Critical Care Delivery Task and Finish Groups has been developed to enhance critical care resource to support all the acute hospital services.

Major procedures

Major arterial procedures include repair of aortic aneurysms (endovascular or open), carotid endarterectomy, major vessel bypass and amputation of the leg. The vascular service provides screening for patients and subsequent intervention should an aneurysm be detected and large enough to require treatment. This surgery is high risk given that the

aorta is the largest artery in human body and uncontrolled bleeding from it can lead to death within minutes. National guidance states that patients identified through screening or incidental imaging to have an aneurysm large enough to require intervention should be discussed at an MDT to agree a management plan and operated on within 8 weeks (Appendix 16).

Prior to centralisation waiting times for this procedure were inconsistent across the Health Board and cases were discussed locally. Centralisation saw the introduction of a weekly North Wales MDT for complex cases, this meant that management plans could be agreed by the multi-disciplinary team and patients could be listed. This is also a requirement from the Welsh Abdominal Aortic Aneurysm Screening Programme.

The National Institute for Health and Care Excellence (NICE) recommends that people who have had a stroke or Transient Ischaemic Attack (TIA) and have a moderate or severe stenosis (narrowing of the carotid artery) should have a carotid endarterectomy. Patients should be assessed within a week of the start of their stroke or TIA symptoms. The operation should ideally be carried out within 2 weeks of the start of symptoms i.e. within a week of the assessment. This requires a service to be responsive to the needs of our patients. The service undertakes approximately 2 of these procedures per month. Following the centralisation of arterial surgery, the vascular network has worked with the stroke team to redesign the pathway for patients requiring carotid endarterectomy and this is part of the wider stroke business case and pathway approach (Appendix 17).

Amputations

Above or below knee amputations should occur at the vascular hub; foot and toe amputations are undertaken locally. Prior to April 2019 this surgery was mainly undertaken at YG and YWM. Although the number of procedures undertaken were fairly similar the types demonstrated variation. Approximately 65% of the procedures were toe amputations and only 15% major surgery with above or below knee amputation. Staff at YG report that patients often underwent debridement with removal of dead tissue and bone in a treatment room on the vascular ward. As the intervention did not occur in theatre, it would not have been coded to be included within this dataset. At YWM, 47% of activity included above or below knee amputations with an equal 47% of toe amputations; foot amputations making up the other 6% compared with 20% at YG.

In December 2018, the Chief Medical Officer for Wales wrote to the Health Board following publication of the National Vascular Registry (NVR) report regarding the low case numbers submitted for major lower limb amputation in comparison to other Welsh Health Boards. This was in part due to a failure to supply data which meant that comparison within the NVR was unreliable and also potentially unreported the Health Board activity. More accurate data has been submitted which demonstrates more amputations have now been performed during the 2 comparison periods following centralisation (Appendix 18). The patterns of procedures demonstrate that toe amputations are approximately 54% of the total and above or below knee amputations form 37% of activity. Major amputation should occur when all other options to re-vascularise a limb have failed or in the presence or an

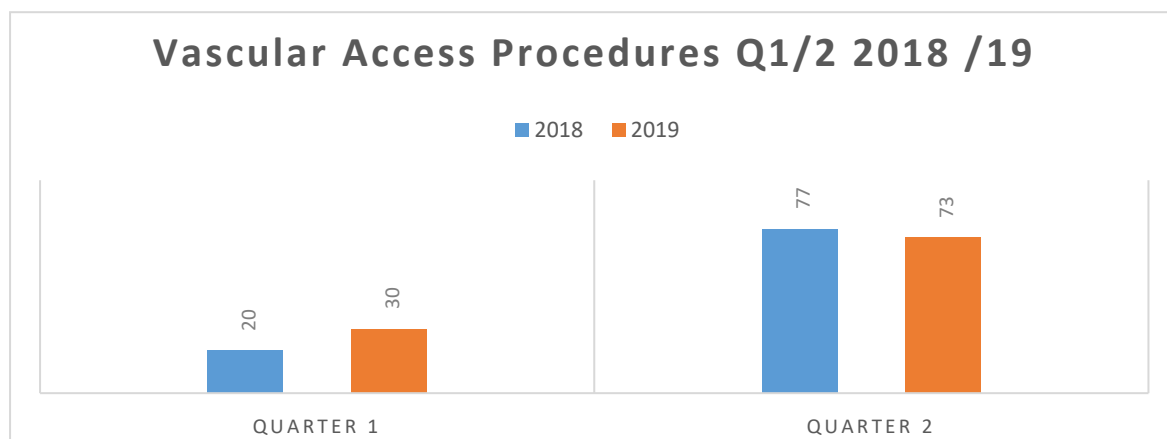
acute ischaemic event in a major vessel. These patients are discussed at the North Wales MDT unless the acuity is such that it is performed as an emergency.

Patients with diabetes are at risk of developing ulceration and infection in their toes and feet. The same factors that lead to diabetes also increase the risk of peripheral vascular disease which means that these patients also tend to have poor blood supply to their peripheries. In cases where infection persists the patient is at risk of developing life-threatening sepsis and often the appropriate course of action is to amputate at a level where blood supply is sufficient to allow healing of the stump. Cases identified since centralisation suggest that the practice to debride on the vascular ward in YG avoided amputation but were associated with excessive lengths of admission, high analgesic and antibiotic use and failed to treat the underlying infection. With the change in service provision there has been an increase in the number of procedures to re-vascularise limbs (29 bypasses in 2018 and 41 bypasses in 2019). This is in line with the NICE guidance on the management of lower limb peripheral arterial disease and the standards outlined in the Vascular Society's Quality Improvement Framework.

VASCULAR ACCESS SURGERY

This procedure allows patients to receive dialysis. In most cases patients are managed by the renal network and the need for vascular access surgery can be anticipated. Prior to reconfiguration over 200 patients were waiting for this procedure to enable them to progress to renal dialysis. Waiting times were inconsistent across North Wales based on the sessions delivered per site.

The actions required to establish a sustainable service is being jointly led by the renal and vascular services to ensure a unified approach to delivering the service with the development of a single standardised pathway that includes agreed roles, responsibilities and timeframes. Moving forward to stabilise the service and ensure sustained, safe and timely availability of surgery the Health Board will provide 2 dedicated vascular access operating lists per week which will be ring-fenced away from the wider vascular surgery lists with no disruption caused by surgical on-call requirements.



Vascular access procedures (April - September 2018 / 2019)

There is now a single vascular access waiting list for North Wales to address patients according to clinical need. This is accessible by both the renal and vascular teams. There are currently 76 patients on the waiting list for this surgery. These patients are at different points in the pathway including those awaiting scanning, clinic appointments and those ready to be listed for theatre. This backlog has improved and the remaining backlog is being addressed through maximising utilisation of current available clinic and theatre day case sessions to prioritise vascular access patients.

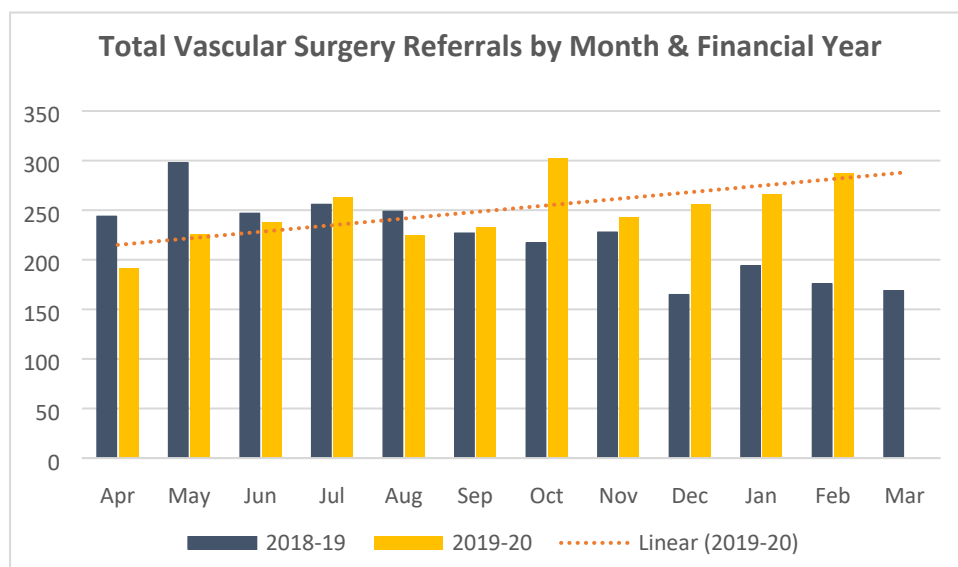
OUTPATIENTS

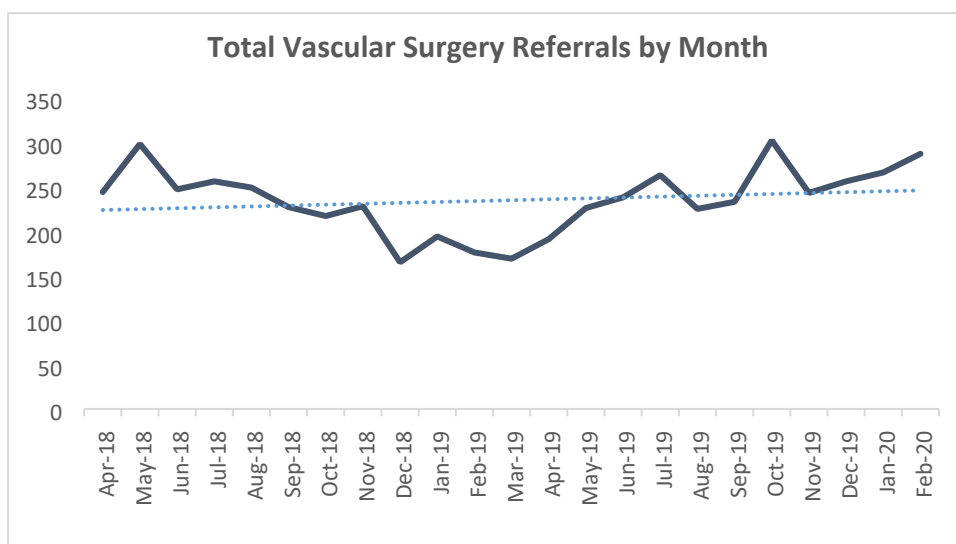
The delivery of outpatient clinics has continued at all acute district general and community hospitals. Clinics are delivered at the following sites:

- Ysbyty Gwynedd
- Ysbyty Glan Clwyd
- Wrexham Maelor Hospital
- Deeside Community Hospital
- Chirk Community Hospital
- Mold Community Hospital

Referrals

The number of referrals received to the vascular service has reduced from the period 1st April 2018 to 31st October 2018 to 1st April 2019 to 31st October 2019. There is a trend of increasing number of referrals received to the service.



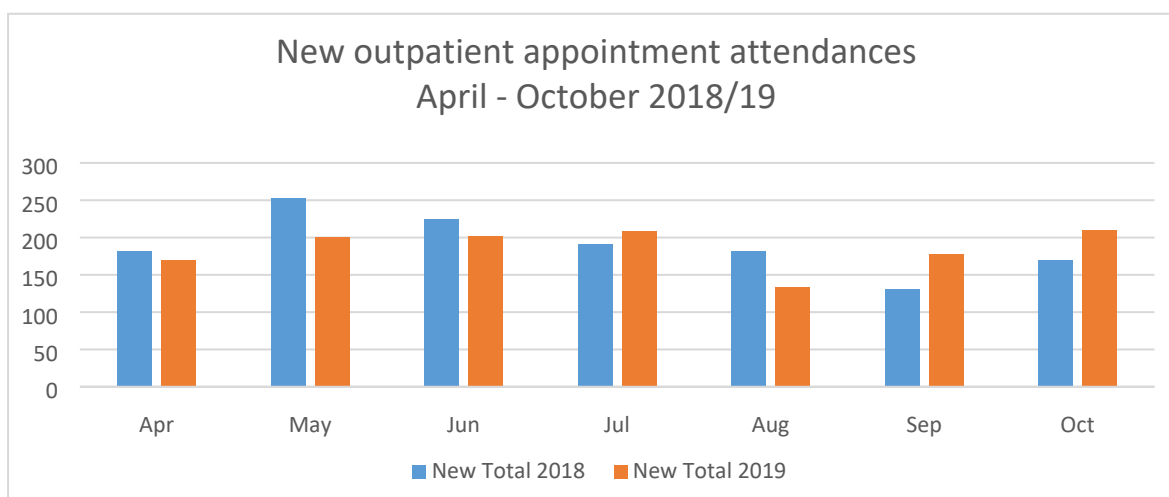


Outpatient attendances

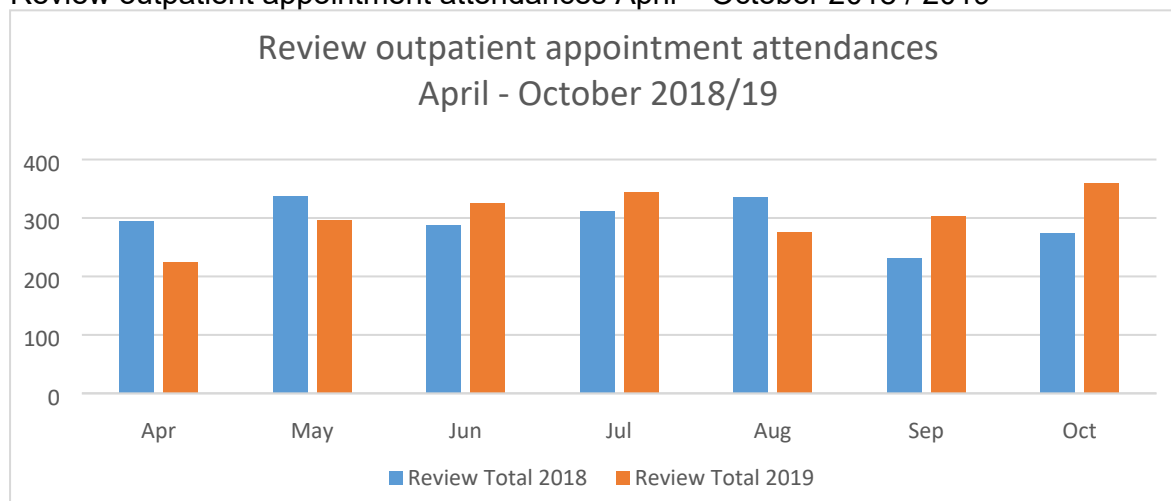
1st April 2018 to 31st October 2018 and 1st April 2019 to 31st October 2019

The number of outpatient attendances have been maintained. There have been an increase in the number of consultants to the service, however the junior doctor outpatient capacity has reduced and therefore the overall number of attendances for new and review appointments has remained the same. The number of hospital cancellations has increased slightly (2018 = 831 / 2019 = 863), patient cancellations have reduced (2018 = 421 / 2019 = 406) and did not attend appointments have increased (2018 = 186 / 2019 = 214) (Appendix 19).

New outpatient appointment attendances April – October 2018 / 2019



Review outpatient appointment attendances April – October 2018 / 2019



Patient Tracking List

The majority of patients waiting over 52 weeks are waiting for varicose vein treatment (Appendix 20). There is an ongoing clinical review of patients to assess the suitability of the patients that have previously been listed in line with NICE guidance and the Interventions Not Normally Undertaken (INNU) policy. Patients have also been contacted to ascertain if they still wish to proceed with the treatment. There is now the ability to offer treatment in line with current evidence and consultant agreement to list veins to boost elective lists; the position is predicted to improve.

There has been an introduction of a clinical condition triage form to be used when triaging referrals. At the end of this financial year (19/20) the stage 1 wait for first routine outpatient appointment on the central site stands at 50 weeks. The longest wait for urgent outpatient appointment is 21 weeks. The position within the centre is also the result of having significantly reduced capacity during the time when a two site model was in place as there was only 1 and at times no vascular consultants on site.

The capacity within the central area has been affected by the loss of the middle grade clinic stream due to staffing issues in the junior doctor team and the need to prioritise emergency on-call and major theatres. It has also been impacted by the non-engagement of two consultants on the on-call rota which resulted in over 70 consultant sessions being lost to cover the on-call and theatres internally (Appendix 21).

There has been demand and capacity planning within general surgery to identify the sustainable gap as well as the gap for backlog clearance, further work is being undertaken at sub-specialty level to identify actions and trajectories required to ensure long term capacity to meet demand and to sustain a compliant performance to national waiting times standards (Appendix 22). Actions relate to demand management, data quality and improving capacity and productivity in outpatients, diagnostics and theatre. There have been a number of solutions explored including running additional clinics for consultants and middle grades. For middle grade outpatient clinics there has been limited availability due to on-call commitments and staffing levels. Nursing capacity and room availability remains an issue at all sites but options continue to be explored.

Follow Up Waiting List

There are 2470 patients on the follow up waiting list, of these 1301 patients are 100% overdue their appointment (Appendix 23). Despite preparatory work, the introduction of the new clinical information system on the central site has led to significant issues in data quality as far as waiting times reporting is concerned. The central operational team have added this issue to the site risk register and have also included resource requirements for data cleansing and training in their 2020/21 operational plan.

Vascular FUWL as at March 2020

| Sender Organisation | Not Overdue | 0-25 PC | 25-50 PC | 50-100 PC | Over 100 PC | Grand Total |
|---------------------|-------------|---------|----------|-----------|-------------|-------------|
| West Total | 296 | 77 | 55 | 91 | 627 | 1146 |
| Cent Total | 183 | 48 | 32 | 69 | 609 | 941 |
| East Total | 239 | 26 | 25 | 28 | 65 | 383 |
| Grand Total | 718 | 151 | 112 | 188 | 1301 | 2470 |

Vascular FUWL as at March 2019

| Sender Organisation | Not Overdue | 0-25 PC | 25-50 PC | 50-100 PC | Over 100 PC | Grand Total |
|---------------------|-------------|---------|----------|-----------|-------------|-------------|
| West Total | 389 | 85 | 32 | 83 | 538 | 1127 |
| Cent Total | 188 | 33 | 33 | 41 | 447 | 742 |
| East Total | 326 | 29 | 39 | 32 | 82 | 508 |
| Grand Total | 903 | 147 | 104 | 156 | 1067 | 2377 |

5. CLINICAL GOVERNANCE AND RISK MANAGEMENT

CLINICAL GOVERNANCE STRUCTURE

Clinical governance meetings are held bi-monthly in line with the planned care directorate. In the period of April 2019 – October 2019 there were four clinical governance meetings including mortality and morbidity discussions. Prior to the service change there had not been a vascular specific governance meeting since April 2018. The centralisation of the service has provided the opportunity to improve the governance structure within the specialty and review of quality and care outcomes. The governance meetings report to the site Quality and Safety Group.

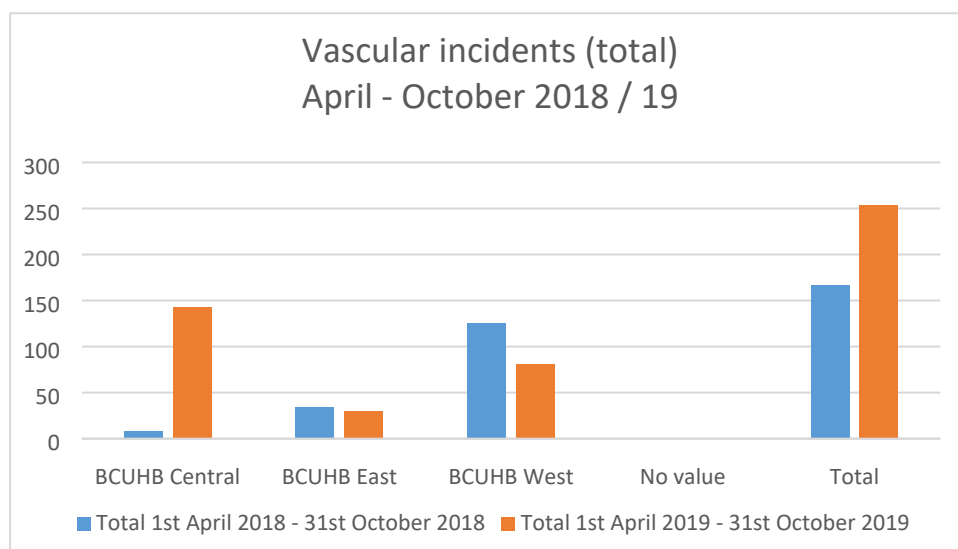
QUALITY AND SAFETY

Incidents

All incidents that have occurred since the arterial service was centralised have been reviewed; the number of incidents reported has increased in comparison with the same period last year. This is in keeping with the incident reporting pattern across the Health Board reflecting a good culture of reporting incidents. All incidents are reported to the bi-

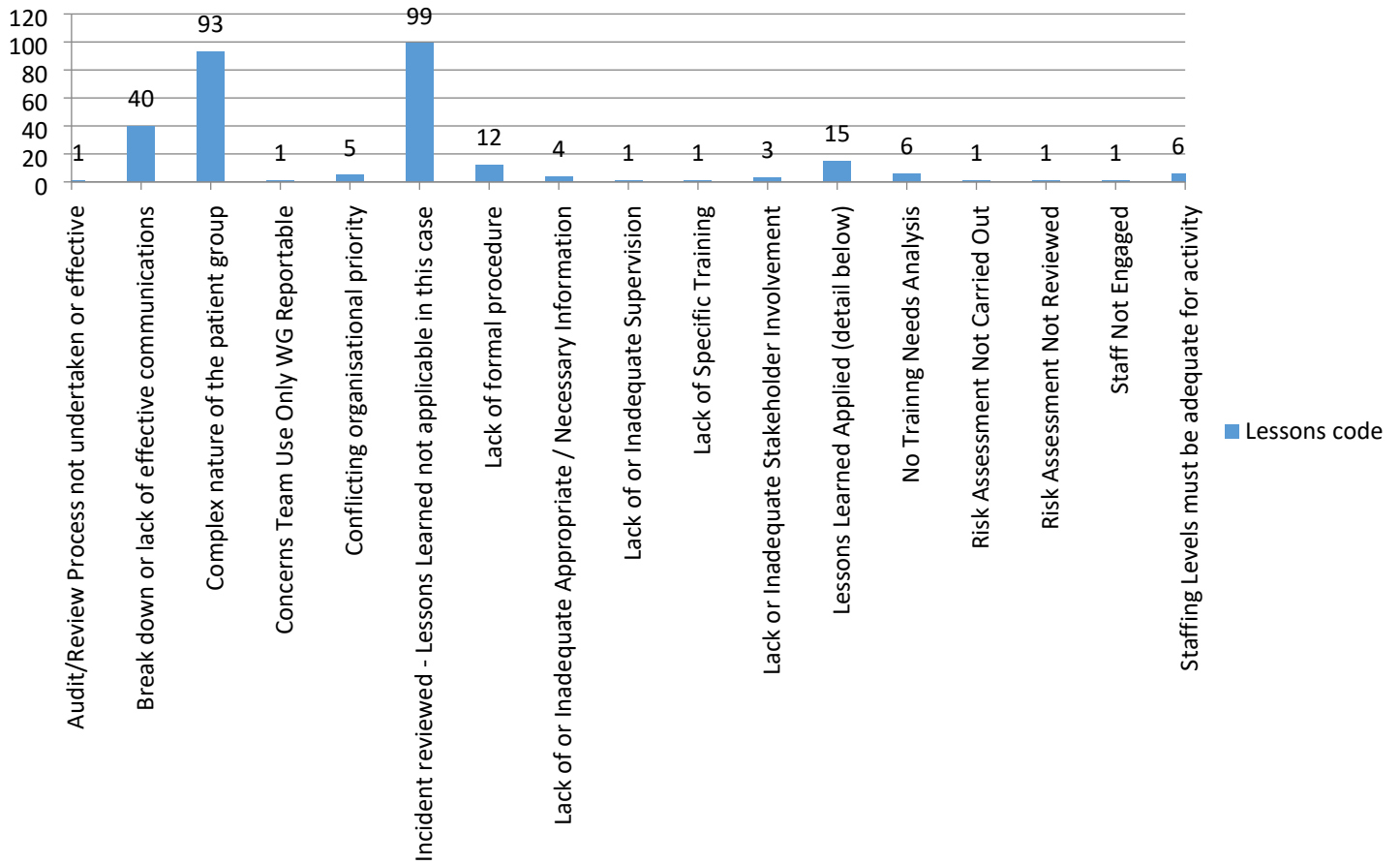
monthly vascular clinical governance meeting and learning is discussed and shared at clinical governance days. The review covers the time scale of April to October for 2018 compared to 2019.

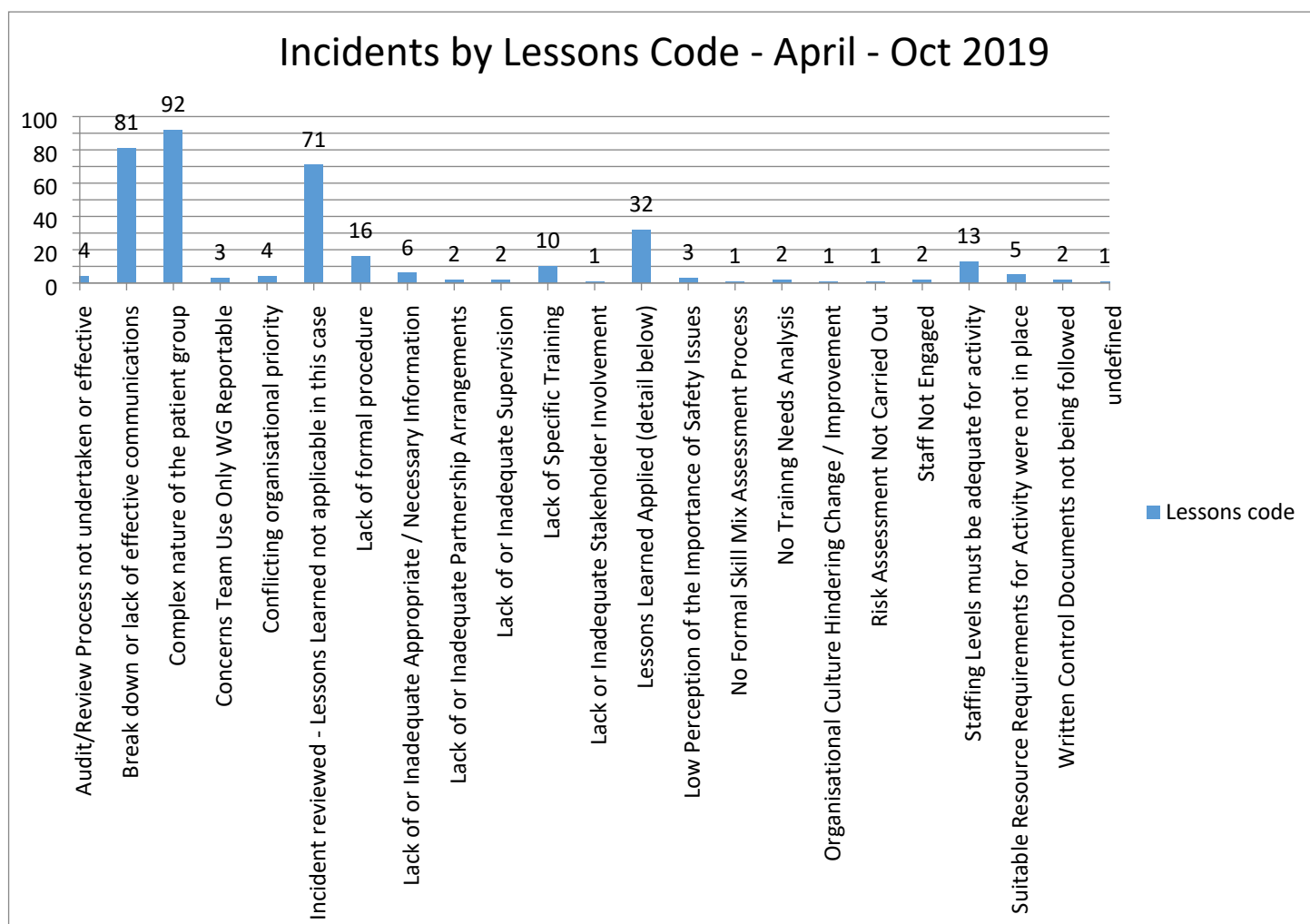
As expected the number of incidents reported at YGC has increased as minimal vascular activity was undertaken there prior to centralisation.



A review of the lessons learnt from incidents demonstrated that in the period April – October 2018 the commonest outcome was documented as lessons learnt - not applicable, followed by complex nature of patient and then breakdown or lack of communication. It is a concern that the most common documented outcome of incident investigations was that there weren't any lessons to learn and perhaps reflect the poor clinical governance arrangements of the service pre-centralisation. When comparing the same period post centralisation the most common code was complex nature of the patient, followed by breakdown or lack of effective communication and then lessons learnt- not applicable. The period after centralisation saw an increase in lessons learnt applied. This is demonstrated in the tables below.

Incidents by Lessons Code April - Oct 2018





Following concerns raised by the North Wales Community Health Council in December 2019 further incidents have been reviewed from 9th April 2019 – 31st January 2020. The table below provides a summary of the incidents prior to centralisation and in the period following. On review of the incidents the overall quality of investigation has improved, this may be attributable to changes in the Health Boards approach to clinical governance as well as a stronger focus on governance with centralisation. As already noted, regular governance meetings have occurred since centralisation, it was not possible to identify any regular minuted meetings prior to centralisation, or identify a forum where clinical concerns, mortality and morbidity was discussed or lessons were shared or learnt.

The content of the incidents prior to centralisation highlight a degree of dysfunction with lack of clinical pathways, failure to review and update pathways and policies and focus on individual hospital sites. Following centralisation serious incidents have occurred, they relate to the interpretation of clinical pathway or failure to follow them. Review of incidents have raised concerns that pre-centralisation patients had continued vascular review without definitive treatments. These cases are under review to ascertain if there is any evidence of harm.

Incidents pre-centralisation

| Severity Of Incident | Description | Lessons Learnt/Themes |
|---|---|---|
| Catastrophic (5) Pre-centralisation 2013 onwards | 3 x death related to ruptured AAA <ul style="list-style-type: none"> - 2 incidents related to deaths of patients with ruptured aortic aneurysms who presented to, and were operated on at, YG. - 1 reported the death of a patient transferred from YWM to YG with ruptured AAA who deteriorated peri-operatively | These 3 cases all died in theatre at YG. All were recorded as recognised complications of the surgery, reported to coroner, not reported to WG. |
| | 1 x Delayed transfer to YWM for vascular surgical intervention – WG reported | Findings of investigation highlighted risk due to fragmentation of service with no MDT discussion. |
| | 1 x Appropriateness of transfer of Patient. <ul style="list-style-type: none"> - transfer from YGC to YG for vascular intervention, following vascular assessment, patient was deemed not fit for surgery. | Potential for vascular assessment on YGC site not explored. |
| Major (18) Pre-centralisation 2013 onwards | 5 x Access to vascular surgeon: 4 of these related to a delay or failure of a vascular surgeon to respond to a request to review a patient. Of these 4, 3 of these incidents were at YG and 1 at YGC. The 5th was WG reported as the vascular team at YG refused to accept a patient from YGC. | Identified: poor communication between teams lack of clinical pathways outdated policies lack of centralisation |
| | 3 x Poor communication: 1 incident related to poor communication between the vascular consultants. 1 Failure to supply appropriate discharge information (YG) 1 was recorded as a near miss, there was a delay in site operational teams considering the impact of an alert to the delivery of the vascular service. | These incidents reflected a lack of collaborative working and poor processes |
| | 1 x Poor pre-operative management Opportunities to optimise patient with IV fluids and administration of IV antibiotics were missed and surgery was delayed. | Lack of recognition and escalation of the deteriorating patient. |

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| | 1 x missed opportunity to manage incidental finding Patient had CT angio which identified an incidental finding of a possible liver tumour. No action taken immediately. Follow up appointment identified findings and actions taken | Patient informed. PTR followed and redress offered. Results managements review identified |
| | 1 x unexpected ITU admission following graft infection | |
| | 1 x concern re. medical management Complications following an elective procedure identified other potential treatment options were available and could have been considered. | Review of national guidance and reflection of decision-making process with update of pathway. |
| | Others: 1 x injury to staff 1 x Hospital Acquired Thrombosis (reported) 2 x Pressure Ulcers 1 hospital acquired, 1 in community 2 x Needlestick injury at YG | |

Incidents post-centralisation

| Severity Of Incident | Description | Lessons Learnt/Themes |
|---|---|--|
| Catastrophic (2) Post-centralisation April 2019-Jan 2020 | 1 x Potentially unsafe transfer. WAST pre-alerted YG ED and conveyed patient unwell with high NEWS. Referred to medical team from ED with sepsis/cellulitis and then referred by medics to the vascular team and arranged transfer to YGC. Patient was critically ill and needed immediate referral to critical care on arrival to YGC ED. No immediate vascular intervention required. | SIR commenced – case still under review. This patient arrived in ED at YG during normal working hours and could have had a vascular review on site prior to transfer. Documentation suggests that the referring doctor was offered a vascular opinion on site but advised the on-call vascular team based at YGC, that transfer was preferable. |
| | Vascular patient had CT angio which demonstrated potential small bowel obstruction. Clinical correlation was advised. The report does not appear to have been reviewed. Patient referred to COTE for further management and subsequently arrested and died. | SIR commenced – case still under review. This case was logged under vascular as patient was admitted under the vascular team. The incident does not reflect issues with reconfiguration of the service. |
| | | |

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|-----------------------------------|--|---|
| Major (6) April 2019 - | 1 x Appropriateness of transfer of patient - patient referred to vascular, unclear if transfer was appropriate, investigations advised at YWM then transferred to YGC - | Actions included: Review of vascular pathways Review of communication methods Review of internal clinical standards |
| | 2 x Falls on ward resulting in # NOF | Learning re. patient information re. mobilising post amputation. Both reported to Welsh Government |
| | 2 x delay in access to surgical intervention - 1 case was discussed at a YG MDT and required major arterial intervention. The case was not referred to the North Wales MDT for listing. A referral was sent to a vascular secretary as a result there was a delay in listing the patient for surgery. - The second required discussion at a local MDT which was delayed, they were listed for day case which was cancelled | The 1 st case highlighted the failure to follow the MDT pathway; patients who require urgent major arterial surgery should be reviewed at the North Wales MDT and will be listed within 8 weeks. Current waiting time is approximately 2 weeks. Review of escalation pathway for cancellation of vascular surgery during times of site escalation. Lists now reviewed at daily site safety huddles. |
| | 1 x Hospital Acquired pressure area | Reported as required |

Concerns

The Health Board has received an increased number of concerns (Appendix 24) in relation to vascular services as well as receiving a number of Freedom of Information requests and concerns raised by the North Wales Community Health Council. It is clear that the reconfiguration of services has caused a degree of distress, particularly in the North West area. The main area continues to be in relation to overall waiting times.

Concerns received April – October 2018

| Themes | YGC | YMW | YG |
|---------------------------------------|-----|-----|----|
| Cancellation of surgery / appointment | | | 2 |
| Plan of care | 1 | | 1 |
| Transfer of care | | 1 | |
| Concern regarding treatment and care | | 1 | |
| Total | 1 | 2 | 3 |

Concerns received April – October 2019

| Themes | YGC | YMW | YG |
|--|-----|-----|----|
| Appointment waiting times | 7 | | |
| Waiting time for operation | | 1 | |
| Cancellation of surgery / appointment | | 3 | |
| Plan of care | 1 | 1 | |
| Transfer of care | | | |
| Accessing services | 1 | | |
| Clarity of which consultant will take over following resignation | | | 2 |
| Concern regarding treatment and care | 2 | | 1 |
| Consultant retention | | | 1 |
| Funding for follow up outside the Health Board | | 1 | |
| Total | 11 | 6 | 4 |

To address concerns raised by staff at Ysbyty Gwynedd, the Chairman of the Board and the previous Executive Medical Director attended a senior medical and dental staff committee. They heard that staff felt that they had lost a service that defined their hospital. Consultants raised issues that identified that a significant component of the vascular service had been based on the good will of a single individual rather than a robust and sustainable framework. This was reflected in the differences in patient pathways at the 3 sites with all foot problems related to diabetes, all lower limb ulcers and all groin abscesses being admitted under the vascular team. These conditions may require vascular involvement although in most other hospitals would be managed by other specialists. Pathways have been developed to manage these conditions consistently across North Wales. Further work is required particularly in relation to diabetes to ensure that we are able to meet national standards in all localities.

An engagement event was held in December 2019 with staff from all of North Wales who contribute to vascular pathways and patient care. This included podiatrists, prosthetists, nurses, nurse specialists, radiology staff, clerical and administration staff, operational teams and clinicians. This was a positive day which brought a better understanding of the current system and an agreement to improve clinical pathways, particularly for patients with complications of diabetes.

Since the service (April – October 2019) have been centralised there have been 21 concerns raised across the service in north Wales. The majority of the concerns relate to waiting times for outpatient appointments (7), cancellation of appointment / surgery (3) and concerns regarding the treatment and care received (3).

PATIENT EXPERIENCE

In line with the patient and service user experience improvement strategy 2019-2022, the service is committed to engaging with our patients and service users to listen and learn from their experience to improve our care pathways.

The ward has invited the patient advice and liaison support (PALS) to undertake “Care to Share” clinics on the vascular ward in Ysbyty Glan Clwyd. These clinics provide patients, carers and relatives with an opportunity to contribute any feedback around care and treatment. The questions range from communication, environment, staff engagement, food, care etc. so the team cover all elements of their care and treatment and feed that back to the service.

The clinics work very well as the patients do not know we are coming, it generally gives a true reflection of what they feel "there and then" as it does not give them time to pre-empt any response and usually what we get back is factual and a true reflection and in the most positive to be honest.

Members of the CHC have told us that patients have had negative experiences on the ward at YGC. Overall, the Health Board received 6 complaints relating to the standard of care received. The overwhelming feedback has been positive with patients recognising the pressures that nursing staff, in particular, are under as reflected in the feedback already shared.

Care2Share reports

| | |
|---|--|
| Theme: Understanding and involvement | <p>Patient A felt they were able to ask questions in relation to his care pathway and he felt reassured all was in place and he was kept well informed. Patient has been in hospital for around 12 days now. He stated that the communication was very good and well versed with regular clinical updates, daily ward rounds and a pathway that was clear and easy to understand post-surgery.</p> <p>Patients wife stated that she does a 114 mile round trip per hospital visit to her husband and for the last twelve days has visited everyday bar two days due to the recent storms, she stated that she had no issues travelling that distance knowing her husband was receiving the best care in a ward specialising in vascular issues.</p> |
| | <p>Patient B felt that he has had fantastic care</p> <p>Patient has felt involved throughout and said it was a great experience to come to a hospital where care was so con-jointed and effective.</p> <p>Patient would have no hesitation in recommending Ward 3 to anyone who needed surgery and recovery afterwards, he did say that given the option he would like to be sent to Llandudno General Hospital for recovery as it works far better for him and his family as they live in Conwy.</p> |
| | <p>Patient C felt that she has had fantastic communication which was relevant, timely relayed from all nursing and clinical staff, she has been fully informed of the process involved in surgery, her recovery and treatment pathways and this has given her clear, simple information that gave her peace of mind and clarity.</p> |

| | |
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| | <p>Patient has felt involved throughout and said it was of great relieve and calming to know exactly what was going on and for her to relay this to her family as well.</p> <p>She was very impressed with her overall care and treatment. All the staff have been polite, professional and friendly and stated nothing had been too much trouble for the any of the staff.</p> <p>Patient would recommend Ward 3 to anyone who had a need for vascular services with BCUHB area.</p> |
|--|---|

| | |
|--|---|
| Theme: First and lasting impression | <p>Patient A stated that all staff worked as a team, they spoke to him like a person and not a patient he had not been in hospital before so had pre-conceived idea of what he was going to face but none of it was like anything he had imagined, he was very impressed and pleased with his care and the staff on Ward 3</p> |
| | <p>Patient B stated that his lasting impression was nursing staff who are busy in a busy environment doing a damn good job, overall very impressed with his 7 week stay on Ward 3.</p> |
| | <p>Patient C stated that her lasting impression was no doubt about staff who are busy and selfless in their attention to patients, they are very friendly and support the patients and their relatives with kindness and information – Very good feedback</p> |

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| Theme: Suggestion for improvement | <p>When asked about suggestion for improvement, patient commented that there was nothing he could think about to improve on the Ward bar the food and it just needs to be standardised across the board, good meals all the time rather than a hit or miss experience.</p> |
| | <p>When asked about suggestion for improvement, patient commented that there was nothing on a medical note he would change as his care and treatment has been fantastic whilst in YGC and in particular Ward 3.</p> <p>He did comment that the TV in his room has not been working for the 7 weeks he has been there even though someone came to have a look at it to no avail, he has access to an iPad but live TV and BBC news would be good for him to catch up on.</p> |
| | <p>There was no suggestion for improvement that sprang to mind she stated just keep doing what you are doing as Vascular services are working well.</p> <p>She thought that making YGC the centre of excellence for Vascular services was a sensible move as geographically it sits well for all the regions of BCUHB.</p> |

A summary of the ward view point comments provided feedback from patients (Appendix 25):

Viewpoint feedback forms:

What was good about your care?

I cannot understate my appreciation for the way I have been treated. Everyone, doctors and all staff, have been wonderful to me.

Very caring staff who all are a credit to the NHS. Always there at the drop of a hat to make you comfortable. Their medical experience is superb with manners and thought of the patient. Well done

I felt safe in their hands. Explained things when I needed.

Both the doctors and nursing staff were friendly and very willing to explain. The attitude and motivation could not be faulted.

I was frightened and stressed coming into hospital but was put at ease by the nursing staff. Great bunch.

All staff hard working, always with a smile. Nothing too much trouble. The NHS should be proud of them. First time patient.

Was there anything that could be improved?

Felt a little pressured when being discharged. Understand logistical pressures and issues but was made to feel a little 'outstaying my welcome'. Have to comment that this was dealt with at the time sympathetically. And food is not great (selection quality).

It is obvious that the lack of beds prevents the smooth flow of work (operations)

More staff required as some are ran off their feet and are missing their breaks to patient care. Let's try to get more recruitment with better wages.

Possibly more staff to ease the burden on those working so hard.

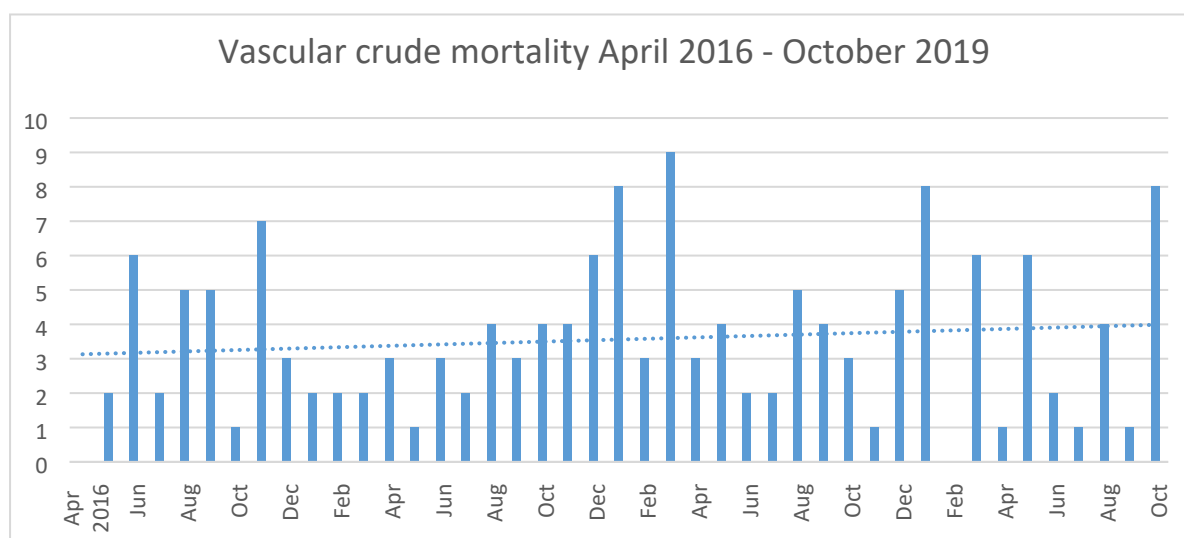
Understaffing

The feedback identifies a recognition of ward pressures especially in relation to nursing staff. Staffing levels are reported in line with the National Nurse staffing tool and ongoing recruitment continues within nursing to address the current vacancies across the Health Board and on a National picture.

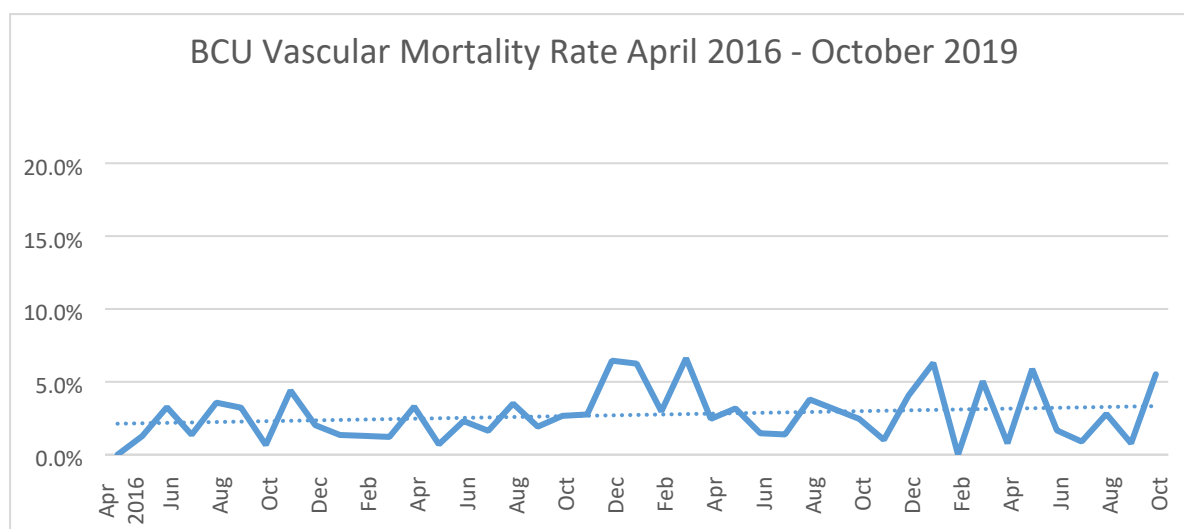
Discharge planning forms part of a Health Board project to support patients admitted to hospital to return home as soon as possible. This work recognises the evidence that, for certain groups of patients, if we are not proactive to support early discharge, independence can be lost and the need for packages of care or admission to care homes increases.

MORTALITY AND MORBIDITY

Crude mortality rate simply reflects the total number of deaths occurring and therefore can be difficult to interpret as there is no underlying detail. Deaths occurring in hospital can be expected in which case palliative care plans are usually put in place. All deaths undergo a stage 1 review where it can be identified if further review is needed. Further review is indicated if the patient has died post operatively, the death is unexpected or there are other aspects of care which may be of concern. Deaths which are reported through Datix will undergo a rapid review and if the cause of death is not clear a serious incident review will be initiated.



The number of vascular deaths has remained the same following the centralisation of arterial vascular services (period April – October 2018 /19). The mortality rate remains the same at 2.6%. This is slightly lower than the average mortality rate since 2016 (2.7%).



All mortality cases are presented and discussed in the clinical governance meetings. The unit records and shares the lessons learned and any actions required to improve the service.

Of the cases reviewed the following learning points have been identified:

- Education within the emergency department staff to improve early identification and diagnosis of vascular conditions in the emergency department. This includes emergency department actions for early senior review and referral to the service.
- Ensuring all investigation for patients are undertaken prior to MDT discussion to avoid delay. This has been supported by changes to the MDT and ongoing work with anaesthetics to improve the pre-operative patient pathway.
- Review and refresh of ward escalation processes following recognition that a vascular consultant could have been called at an earlier opportunity.
- Improving communication has been a key area of learning.
- Review of pathways to highlight:
 - timely transfer of identified emergency conditions. This also includes working with WAST where a transfer was delayed.
 - timely access to diagnostic procedures
 - appropriate completion of DNACPR forms
- There were positive learning points related to timely appropriate management decisions including decision to palliate patients

Morbidity cases are presented and discussed in clinical governance meetings. There is no record of vascular clinical governance discussions of morbidities discussed prior to centralisation. The following morbidity cases (table below) for April to October 2019 have been discussed. Some of these cases were reported as incidents, for example, returns to theatre, falls and hospital acquired thrombosis including acute arm ischaemia following PICC line insertion. There were 4 major amputations after attempted re-vascularisation. 4 patients developed hospital acquired pneumonia. 2 patients had a stroke whilst under vascular care.

Vascular morbidity April – October 2019

| | Falls | HAP | Major amp after bypass | Post op DVT | Post Op MI | Redo vascular surgery | Repeated theatre admission for vascular complications | Stroke | Wound dehiscence | Others |
|--------|-------|-----|------------------------|-------------|------------|-----------------------|---|--------|------------------|--------|
| April | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| May | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| June | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 |
| July | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| August | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 2 | 0 |
| Sept | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Oct | 0 | 2 | 0 | 0 | 0 | 0 | 3 | 1 | 0 | 0 |

MDT STRUCTURE

The vascular network has weekly MDT and business meetings, all relevant clinical and non-clinical staff are invited. This feeds in to the bi-monthly network governance meeting. Weekly North Wales MDT are held to ensure standard management pathways are used

to treat patients, in the expectation that standardising treatments to the best evidence based techniques will improve outcomes.

Prior to the centralisation of the vascular service there was a twice monthly North Wales MDT which solely discussed WAAASP patients and weekly local MDTs held in Wrexham Maelor Hospital and a combined Ysbyty Gwynedd and Ysbyty Glan Clwyd MDT. This structure and the lack of appropriate governance arrangements was noted to be of serious concern by the external Royal College of Surgeons review team in 2015.

Following the centralisation there is now a weekly MDT meeting across the Vascular Network to discuss all major cases and local MDTs on all sites to discuss minor cases. There is a Standard Operating Procedure for the MDT and improved monitoring of all major cases (Appendix 26).

RISKS

The vascular network regularly reviews the service performance and identifies risks which are recorded, managed and escalated in line with the BCUHB Risk Management Policy.

The network has identified the following key risks:

| Risk Title | Summary | Risk Level | Mitigation |
|---|--|------------|--|
| Lack of consistent pre-operative anaesthetic assessment for YGC vascular inpatients | There is a risk that vascular inpatients in YGC will not receive a full anaesthetic assessment prior to allocation for major vascular intervention. This is due to a lack of capacity to carry out assessments within the anaesthetic department. Lack of full anaesthetic assessment at the time of patient allocation for major vascular intervention can cause delayed treatment, potentially offering wrong intervention, delayed discharge and increased patient mortality and morbidity by increasing the risk of limb or life loss. | 25 | There are ongoing discussions within the vascular and anaesthetic teams to ensure timely assessment. |
| Lack of secretarial support in Ysbyty Gwynedd | There is a risk that there will be insufficient administrative support to the vascular consultants in Ysbyty Gwynedd. This may be caused by sickness within the existing secretarial team. This could adversely impact the clinical management of vascular patients. | 20 | Cover coordinated within the surgical directorate. Support across the vascular network as required. |

| | | | |
|---|---|----|---|
| Junior doctor cover for the vascular service in hours | There is a risk that there is insufficient junior doctor cover for the vascular service in hours. This may be due to the impact of gaps at SHO level on the general surgery on-call rota meaning that the locum SHO is covering gaps. This would impact on ability to deliver the full service at the Glan Clwyd hospital site. | 20 | Ongoing review of the rota and leave requests. |
| Vascular junior doctor provision in Ysbyty Gwynedd | There is a risk that the vascular team will be unable to safely run the service in Ysbyty Gwynedd due to the lack of junior doctor medical cover. This could lead to the suspension of the vascular beds in the hospital and impact the delivery of day case procedures including angioplasties, renal access and surveillance. It will also impact on the Glan Clwyd hospital site if there are no beds in Ysbyty Gwynedd. | 20 | There are discussions ongoing with the Hospital Medical Director to support a shared care model. |
| Waiting for Renal Access Surgery | There is a risk that renal patients are waiting excessively for renal access surgery. This is due to a lack of capacity in the service to delivery clinic and theatre sessions | 16 | There is a review of waiting lists and capacity. |
| New and review patient clinic capacity | There is a risk that current capacity will not be sufficient to meet the waiting list demand for new and review patient appointments. This is due to a significant waiting list backlog. This will impact on the waits for patients both urgents and routines. | 20 | There is a review of waiting lists and capacity. Further review with operational management team to address clinic issues and identify further capacity. |
| Cancellation of vascular cases requiring HDU / ITU beds | There is a risk that major vascular procedures requiring HDU and ITU beds may be cancelled. This may be due to a lack of availability of beds due to the demand on Critical Care Unit bed capacity in Glan Clwyd Hospital. This will impact on the delivery of patient care. | 20 | Patients are assessed by a vascular anaesthetist and reviewed in MDT to ensure that they require a bed before being listed and a bed booked. Coordinating with the operational team on site to ensure the total number of HDU/ITU beds booked is within agreed total. The business case for 1 additional critical care bed staffing was approved. The extra bed is not consistently opened due to |

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| | | | nurse staffing. Review of bed cancellations and ongoing collaboration with operational teams to coordinate requirements across general surgery. Critical Care is drafting a business case for further expansion of critical care capacity to Welsh Government. |
| Utilisation of the vascular hybrid theatre | There is a risk that the hybrid theatre utilisation will not be optimised. This may be caused by the process of listing patients and by delays in starting times due to multiple factors. This would impact negatively on patient care. | 16 | Ongoing work with the clinical teams, theatres and anaesthetics to ensure optimisation of lists and evaluation of current activity. |
| Repatriating patients and clarity of the pathways for accessing beds in peripheral hospitals | There is a risk that patients will not be transferred back to their local hospital in a timely way. This is due to lack of clarity of the pathways for accessing beds in peripheral hospitals and a lack of prioritisation and capacity to accept patients. This will impact on the ability of the service to manage elective and emergency admissions into the ward. | 16 | Ongoing discussions with COTE and Hospital Management teams to agree repatriation of patients no longer require a tertiary vascular service. Identifying and escalating patients that are waiting. Pathway meeting held on 11/12/19 and rapid improvement event on 12/12/19. |
| Data entry to the National Vascular Registry (NVR) | There is a risk that data will not be entered into the National Vascular Registry in a timely way. This is due to capacity of the administrative team to input the data. This may affect the reporting of outcomes for the Health Board and national reporting. | 15 | The MDT coordinator has responsibility for inputting some of the NVR data with regards to follow up information Case to be developed for further funding for another data entry clerk. This follows discussion with the WAAASP Public Health Wales team and the Vascular Society Representative for Wales. |
| Capacity within the vascular science department to deliver service | There is a risk that the capacity within the vascular scientist team to assess vascular patients will not be sufficient to meet the demand. This is caused by a vacancy within the team. This may lead to increased waiting times in Ysbyty Gwynedd, | 12 | Locum commenced on 06/01/20. Additional clinics now ongoing to improve position. Advert out and closed for a substantive post. One |

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| | Wrexham Maelor Hospital and Glan Clwyd Hospital. | | applicant for the post to be interviewed. |
| Vascular service exceeding budget | There is a risk that the service will exceed the budget for consultant vascular surgeons. This may be due the necessity to cover on calls and consultant of the week due to a vacancy. It is also due to having a locum agency consultant to cover a substantive consultant who is unable to work. This will impact negatively on the overall financial position. | 15 | Ongoing review of positions and decision to go out for a NHS locum to cover gap. |
| Lack of clarity regarding pathways | There is a risk that there is a lack of clarity about the emergency pathways for patients attending peripheral sites and transferring to Glan Clwyd. This may be caused by a lack of engagement across areas of the Health Board. This may impact the quality of care delivered. | 12 | Engagement with sites to improve communication. Meeting with clinical teams in WMH and YG (08/10/19) to discuss the pathways. Further rapid improvement event held on 12/12/19. Dissemination of outcome of rapid review event |
| Junior doctor availability to support vascular out of hours and weekends | Demand on junior doctor commitment to the general surgical take could impact on availability to support vascular out of hours and over the weekend. This is due to pressures on the staffing of the on-call rota for general surgery. This will impact the delivery of care to patients on the ward. | 12 | Currently internal locum cover to support the vascular ward round at the weekends. Further review of the junior doctor provision. |
| Impact of cover colleague on the vascular service | There is a risk that sessions will be lost due to the necessity to cover colleagues not participating on the rota. This will impact service delivery and SPA/Admin time for consultants. | 10 | Utilising uncontracted time of consultants to reduce the impact on timetabled clinical time. Discussion with consultant regarding return to the on-call rota. |
| Sufficient space to delivery varicose vein radio frequency ablation treatment in Day of | There is a risk that there is insufficient space to maintain an aseptic field when delivering radio frequency ablation treatment in the treatment room in Day of Surgical Arrivals in Glan Clwyd. This is due to the equipment and set up in the room. This may impact on quality of care. | 9 | Discussion with IPT regarding mitigation to improve the space utilised. Review of other areas that are doing RFA in clinic rooms. |

| | | | |
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| Surgical Arrivals | | | |
| Inconsistent physiotherapy cover to the vascular ward | There is a risk that there will be inconsistent physiotherapy cover to the vascular ward. This is due to an inability to recruit a substantive member of staff. The ward is reliant upon the existing staff covering the surgical wards. This could negatively impact patient care and patient flow. | 9 | Open day April 2020. Job role to be re-advertised. |
| Vascular consultant on call rota | There is a risk that the vascular consultant on-call rota will not be covered. This is due to one consultant not participating in the rota and the remaining consultants providing cover. This would impact on the delivery of the emergency service if cover is not maintained. | 9 | Ongoing dates requiring cover requested in line with the hospital process. Requests for cover then offered out to the consultant team. |

6. LESSONS LEARNED

In order to have a North Wales vascular service that would be thriving in five years' time and not dependent on one or two individuals working above and beyond what is sustainable or even healthy, it was necessary for the Health Board to act. The report from the Royal College of Surgeons reinforced the necessary actions:

- Create a hub and spoke network;
- Invest in additional surgeons and radiologists to create and attract a team dedicated to performing these complex, low volume interventions;
- Invest in the best infrastructure to support this care i.e. modern doubly equipped operating and radiology theatres.

The service is in line with national guidance, the Royal College of Surgeons and the Vascular Society. There has been investment in a state of the art vascular unit with a dedicated ward and hybrid theatre. This has resulted in the recruitment of vascular surgeons, interventional radiologists, junior doctors, nurse specialists, ward nurses, therapists and administrative staff to provide a more robust, sustainable tertiary service to the population of North Wales. Work continues to substantively recruit to all MDT vacancies. Clinical pathways for a range of clinical conditions have been implemented and improved. The culture within the service now reflects a focus on patient and service needs not surgeon preference, as reflected in consultant job plans and ability to flex to support whole service needs.

Recent external visits from Public Health Wales and meetings with the All Wales Renal Network provided positive feedback regarding the significant progress made in implementing a safe, sustainable service.

The agreed service model for vascular services has generated ongoing concern amongst key individuals and community representatives. The concerns relate to the implementation and delivery of the adopted service model and the geography of North Wales, and the outcomes for patients.

There have been issues with communication and engagement across the sites as the vascular reconfiguration has been a contentious subject for a number of years. This has improved somewhat as continued efforts are made to engage with the clinical and non-clinical teams across secondary and primary care, however there is still work to be done. The service in Ysbyty Glan Clwyd has been running since April 2019 and as with any new service there are issues associated with establishing and embedding the service. It is important to recognise the impact of bed requirements for the service in light of the changes to staffing in Ysbyty Gwynedd. This will need to be considered in line with the developing digitally enabled clinical strategy and the Health Boards intent to deliver a lower limb service with a specific focus on the management of diabetic foot disease meeting national standards. Further work is needed to continue to develop these pathways and identify how the vascular network supports their delivery.

The service held a rapid improvement event in December 2019 with stakeholders from across the Health Board and wider health economy invited to attend to discuss:

- Pathways
- Communication
- Intra-hospital transfers of care
- Service Development

The outputs of this have been shared, with further working groups needed to progress identified improvement activity. It was recognised that centralisation of the service saw areas that have improved and are working well and areas to improve. The feedback from this event highlighted the pathways that needed further work and ways to improve communication across the service and wider multi-disciplinary team (Appendix 27).

| | |
|-----------|------------------------|
| 7. | RECOMMENDATIONS |
|-----------|------------------------|

This review has identified that implementation of this service saw multiple challenges that contributed to concerns raised. The review did not identify evidence that would suggest that abandoning the current service model would infer greater benefit to the population of North Wales. To continue to address these concerns further work is required in the following areas:

- Alignment of vascular inpatient bed base
The bed modelling prior to centralisation indicated that 33 vascular inpatient beds were required for the vascular service. This included work to support management of diabetic foot disease and the intention to deliver a lower limb service at YG. Following the resignation of the clinical lead for this service, further work is required to ensure clinical pathways are consistent and meet national standards. The network must be able to access all funded vascular beds with consideration of re-

allocation of beds to YGC if access to beds at YG is not possible due to junior doctor restrictions.

- Pathways of care

There are areas for improvement particularly with regard to the pathway for managing patients with diabetic foot problems. The vascular network should clearly define how it can support this area of work through vascular assessment and provision of revascularisation and where needed, amputation. Further work is required on a wider multidisciplinary team basis to ensure that the management of diabetic foot disease meets national standards with the creation of a North Wales foot service.

- Engagement and communication

An agreed communication strategy should be implemented which includes continued events to promote pan BCU working, sharing of good practice, lessons learnt and address concerns. This should include a further stakeholder analysis and engagement with external organisations including the Community Health Council. Support from the communications team is recommended.

- Quality and Safety

There has been an improvement in the clinical governance structure within the service, with regular governance and M&M meetings in place. All risks are registered on the Datix system and reviewed regularly with the team during governance meetings. All incidents will continue to be reviewed and investigated and learning identified and shared to improve the service. It is recommended that a separate report for the vascular network is shared via the secondary care structure directly to the Quality and Safety Group for future assurance.

- Access to the service

While there is evidence of improvement in some areas of service eg. Vascular access surgery, further work is required to reduce waiting times and manage the follow up backlog. This will be partly addressed with the improved utilisation of consultant sessions as all consultants contribute to the on-call rota. Recovery plans will continue to require monitoring to ensure improvement. It is recommended that the vascular activity is separated from general surgery for reporting purposes and a separate report is shared via secondary to the Planned Care Improvement Group for future assurance.



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Bwrdd Iechyd Prifysgol
Betsi Cadwaladr
University Health Board

Healthcare in North Wales is Changing



This is a public consultation to ask your views on proposals for changes to healthcare services

Healthcare in North Wales is changing – Join the Debate

Introduction

Our aim is to improve health, not just extend life.

Over the last three years, GPs, hospital doctors, nurses and other health professionals have worked together to consider how they could make healthcare services better to meet this aim.

Many people with an interest in the NHS have been involved such as patients, service users, carers, volunteers, community groups, local authorities and many others.

They have told us what they value – being treated with dignity and respect, having information that helps them to make a choice and not being ‘bounced’ around the NHS and social care when they or their families are most vulnerable.

This dialogue and engagement has led to the proposals in this consultation document. Services should be close to where people live whenever it is safe and appropriate. When more specialist care is needed, hospitals must be centres of excellence so the best possible care is available when needed from the right people.

The proposals we are now making are intended to change the way in which some services are provided and also where they are provided so that we can meet quality standards. The proposals will allow us to attract and retain the professional clinical staff we need without increasing overall levels of spending.

We now want to build on these discussions and ask for your views and opinions. Your voice is important so please take the time to read this booklet. Think about what healthcare could be like in the 21st century for yourself, your family, your parents and your children.

Please join the debate and send your comments to us by **28 October 2012**.

Healthcare in North Wales is changing - join the debate.

Professor Merfyn Jones Chairman
Mary Burrows Chief Executive

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Summary

This booklet sets out proposals for how we think healthcare services could be delivered to give the best care for all. To help you find your way through the booklet, this page gives a brief summary, section by section.

Section 1 describes the Health Board's responsibilities and the population we serve.

Section 2 explains why we think healthcare services need to change to meet the health needs of the population of North Wales, setting out the risks we face, the quality standards we need to meet and the financial challenges ahead.

Section 3 describes how clinicians have led discussions with many people to develop these proposals over a number of years and how we have responded to what people have told us so far. This section also describes what support we have from clinicians for the proposals.

Section 4 provides information about our local vision for healthcare services in the 21st Century and tells you about how services will be provided in the future so that we can improve results for patients, carers and our workforce. Services should be close to where people live whenever it is safe and appropriate. When more specialist care is

needed, hospitals need to be centres of excellence so the best possible care is available from the right people.

Sections 5 – 8 are an important part of this document. Here we describe the services where we think we need to make changes and set out our proposals for change.

Section 6 focuses on healthcare services where you live. Here we describe proposals to deliver more care in the community; how we will take action to support people to improve their personal health and prevent ill health; and care for more people in their own homes. This section also includes details of proposals for hospital hubs to make sure services are reliable and consistent for more of the population.

Section 7 concentrates on services for older people's mental health. We make proposals to increase community services so that we can support people in their own homes better and rely less on institutional care

Section 8 explains how we propose to improve care for the small number of babies who need the very highest level of specialist care and meet the quality standards expected of these services.

Section 9 describes proposals to concentrate complicated vascular surgery – major operations on veins and arteries – in

one hospital in North Wales. This will mean patients get better results and the service will be more efficient.

Section 10 confirms how we have considered any potential impact of our proposals on groups in our community who are protected under the Equality Act and the Welsh Language Act and asks for your views on this.

Section 11 explains how we propose to deliver these changes if they are accepted. It confirms that no changes will be put in place until suitable services are available elsewhere.

Section 12 explains how you can feed your views into the consultation process.

Section 13 explains what happens next and how and when final decisions will be made.

At Appendix 1 there is a summary table showing the impact of the proposals on each community.

Some of the words we use can be confusing so we have provided a glossary of terms to help explain what these mean at **Appendix 2**.

1. About us

Betsi Cadwaladr University Health Board is the NHS organisation responsible for the promotion of good health and the provision of health care services for the population of North Wales. Our area covers around 2,500 square miles and we receive around £1.2 billion a year from the Welsh Government to provide healthcare services.

We are responsible for community healthcare as well as hospital services for the 680,000 people living in the counties of Anglesey, Gwynedd, Conwy, Denbighshire, Flintshire and Wrexham. In holiday periods there are many visitors who come to our region who may also need care.

We are also responsible for primary care services for people registered with GPs (family doctors) based within these areas and for community pharmacy, dentistry and optometrists (eye care).

You may be interested in our proposals if you live in North or West Powys, Cheshire or Shropshire, as we provide some services for people living in these areas.

2. Why we think our services need to change

Healthcare is always changing and developing. We are able to deal with health in different ways because of new drugs and changes in clinical care. We have reached a point where services need to change so that we can better meet the health needs of the people of North Wales. Deciding how to go forward will help us build good services for the future.

To do this means we cannot stay as we are. It is increasingly difficult to be confident that all of the right staff, with the right skills, can be in the right place to provide the healthcare that people need.

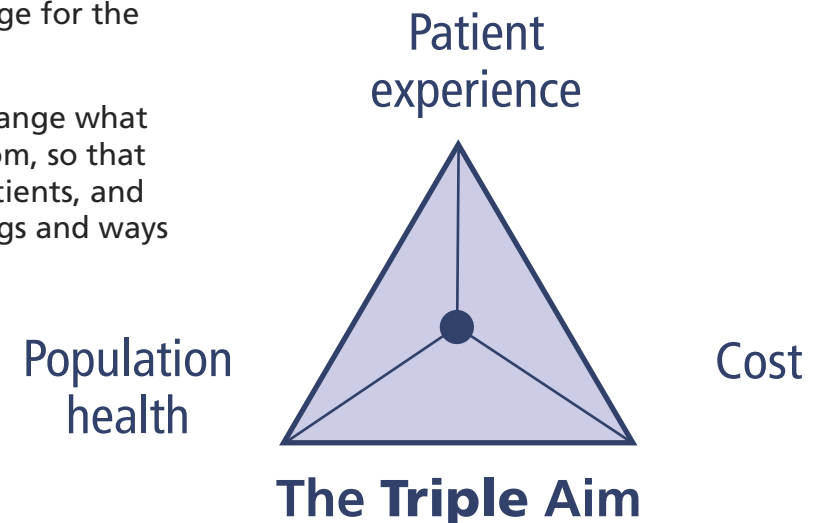
We are also working with less money and are not expecting this to change for the next three years at least.

For that reason we have to change what we do and where we work from, so that we can protect services for patients, and reduce reliance on old buildings and ways of working.

We work to meet the Triple Aim, which is the way we balance how the NHS works by:

- Improving population health
- Improving quality, safety and patient experience
- Controlling or reducing costs

We need to perform well against all three but, at the moment, the balance is not right and we must do better.



Population health need

The population of North Wales is expected to grow to over 700,000 by the year 2033. By far the biggest increase will be in the number of people aged over 65. With an expected increase by 60% in this group between 2008 and 2033. The numbers of people aged over 85 is likely to be more than double.

Our population is a mix of urban (49.2%) and rural (50.8%) communities.

It is important that patients, their families, service users and carers are able to express needs in the language of their choice. This is good practice and will help make sure people get the best care. This includes many people in our communities who are Welsh speakers. Our aim is to enable everyone who uses services to do so through Welsh or English in line with their need and their choice and to promote the Welsh language in healthcare services.

There are differences in the needs of the population across North Wales. There are public health challenges, especially in areas of deprivation where living conditions can be more difficult for some people. Smoking, alcohol, diet and how physically active we are play a large part in influencing our health.

We all need to work together to influence these factors as they can contribute to the major causes of ill health and death in North Wales. These include circulatory diseases such as heart disease and stroke; respiratory diseases and cancers.

For further information about population health need go to our website where you will find the North Wales health profile:
www.bcuhbjointhedebate.wales.nhs.uk



Health in North Wales is generally slightly better than the average for Wales but this hides some big issues and some inequalities.

The Welsh Health Survey in 2009/10 found that:

- Almost a quarter of adults smoke (23%)
- 55% of adults are overweight or obese
- 27% of adults said they 'binge' drink at least once a week (this means drinking alcohol in a way that is harmful to health)
- Rising levels of obesity and high levels of alcohol and tobacco use amongst children and young people suggest this pattern is likely to continue

Quality and safety

As healthcare advances, people are living longer and healthier lives. Doctors, nurses, midwives and other professional staff (clinicians) want, and are expected, to meet national standards and guidelines. These are produced by Royal Colleges, the National Institute of Healthcare Excellence (NICE), the Welsh Government and professional bodies.

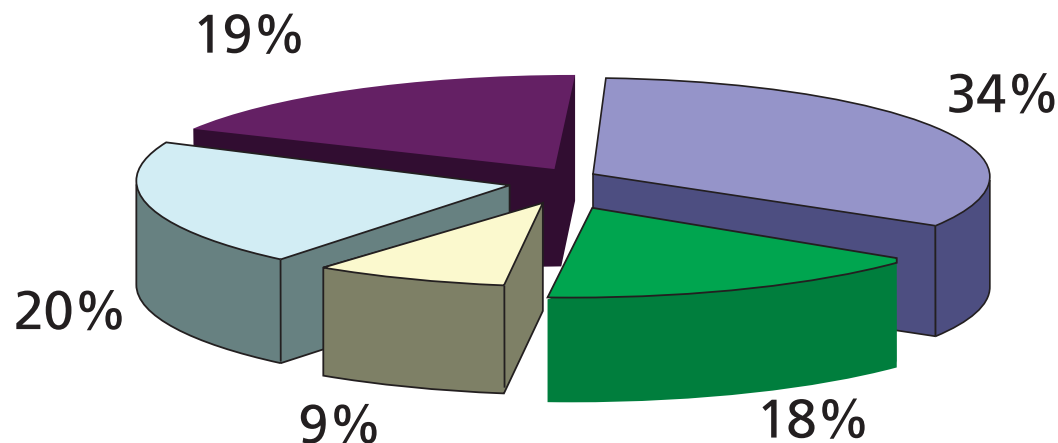
Clinicians say that standards are not being met in many areas and patients, service users, carers and families tell us their experience is not as good as it should be. Although some things have improved already, if we want to make a real difference, we must make changes to how we organise what we do and that includes how, when and where we provide care.

Financial reality

For a decade, up to 2010, there has been record investment in the NHS. This has now stopped. Funding is reducing when compared to cost increases and will continue to reduce for at least three years. People know that the current financial position is very tough. We must live within our means and make every penny count.

Money available for building projects has also reduced, which limits our ability to refurbish or rebuild premises or replace equipment as we would like.

We are not the only ones in this position. Other Health Boards and the NHS across the UK face similar challenges and like them, we must make best use of the money we have for the foreseeable future.



Where we spend our money

The diagram below shows how we spend our money. Around 90% of all contact patients have with healthcare services takes place in the community, and nearly half of our funding is spent on primary care, community hospitals and services and mental health services. We want to increase the proportion that we spend in the community and there are proposals in this booklet for moving services into the community.

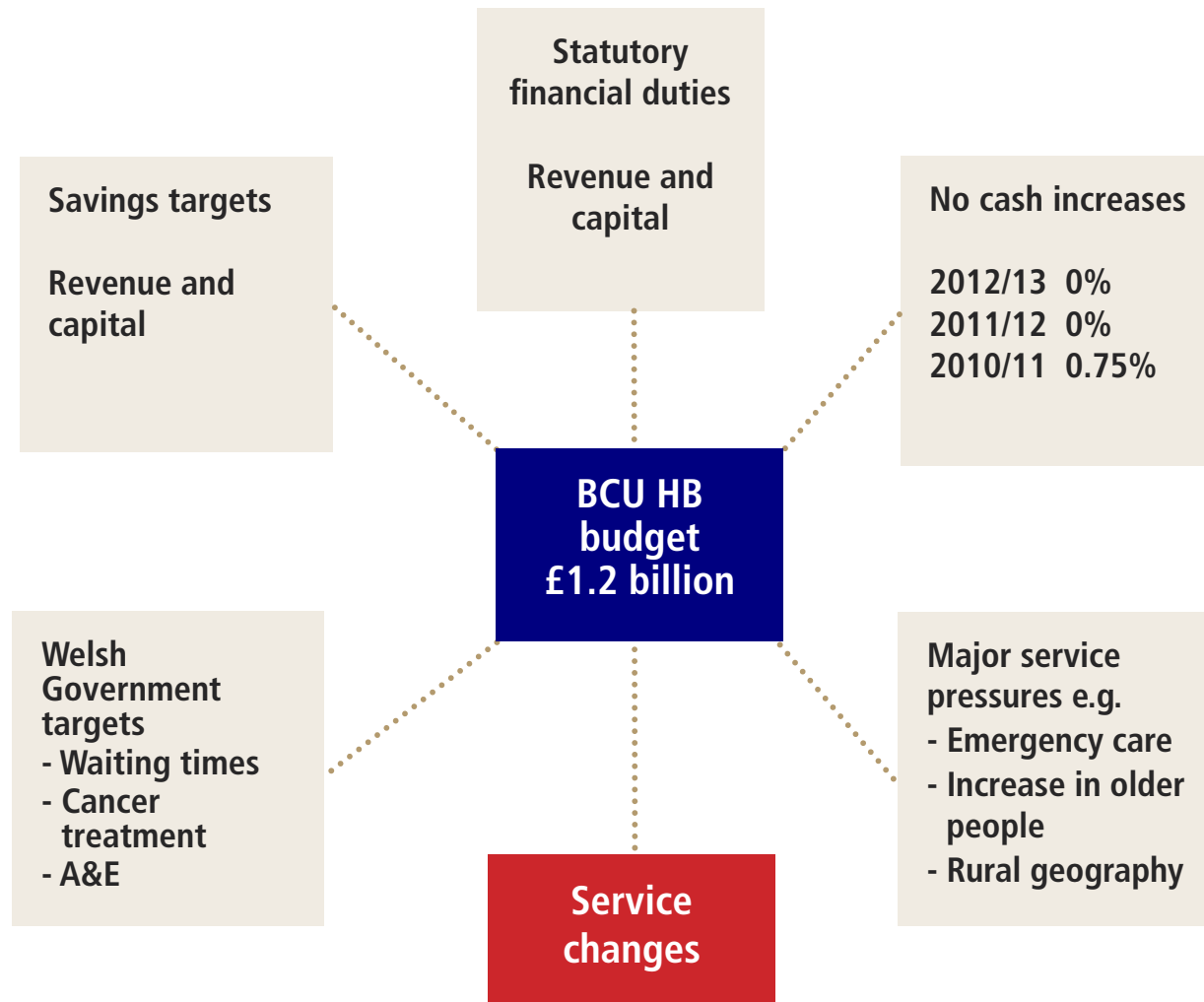
- Acute hospital health services
- Community services and community hospitals
- Mental health services
- Primary healthcare services
- Healthcare services from other providers

Note: "Healthcare services from other providers" refers to services from other NHS organisations or from independent services, including some very specialised services.

You can find details of how we use our funding in our annual accounts which can be found on our website.

Financial and service environment

This diagram gives a summary of some of the major pressures that the Health Board faces.



We are already tackling the financial difficulties by making sure as much money as possible is put into front line services and improving productivity and efficiency in some services. We have reduced our management costs by 20% to support this.

This will not be enough for the future. Services are spread too thinly, are sometimes hard to staff and are not providing value for money.

If we continue as we are, we risk running services that may not be safe and services for which we cannot attract professional clinical staff. We also risk not releasing funds for new treatments such as cancer and care for older people so that these may not be available when most needed.

The proposals that are set out in this consultation booklet are designed to tackle some of the more difficult problems we are facing in meeting standards against a backdrop of reducing funding.

The proposals are about how we maintain and improve service standards and this will help us use the money available in better ways and for more people.

We will need to make significant savings this year and continue these over the coming years. The specific proposals put forward now will not themselves deliver all the savings necessary so we will continue to work to improve and modernise care to help achieve this.

Our staff

The NHS depends on the quality of its staff, having the right number and mix of doctors, nurses, midwives and other professionals but there are very real problems achieving this in some areas in North Wales as well as in other parts of the UK.

The Health Board is one of the largest employers in North Wales. There are two Universities that are involved in the training and development of healthcare staff locally together with a number of Further Education colleges. There is a relatively stable workforce with low turnover in many areas.

However, medical staffing – that is, recruitment of doctors – poses the most significant risk to the sustainability of healthcare services locally and across Wales.

Recruitment prospects for consultants in some specialties such as mental health are more problematic. Forecasts and recent experience in recruiting paediatricians (child health doctors) suggest that this is the single most challenging specialty.

Restrictions on working hours for safety reasons mean that we may need more doctors and nurses than in the past to provide safe services for patients. It is sometimes difficult to recruit as many as we need.

The number of doctors in training in some specialties has reduced. The reasons for this are many and are influenced by medical schools and Deaneries. The shortfall in trainees presents another high risk to the sustainability of current services.

Clinical staff continue to explore ways of dealing with these risks including different ways of organising rotas, better ways of working at night and using other skilled healthcare professionals.

The Health Board currently spends a high proportion of pay on medical locum and agency staff which is not good for quality and costs us more. We are already working hard to reduce spend on these temporary staff.

If we are unable to recruit and retain essential staff we may need to change services further for safety, quality and financial reasons.



3. How we have involved people in developing our proposals

We have set up groups in local areas so that we can talk to representatives of local people about what works well in our health services, what needs to change, and what they think about the proposals.

We will carry on meeting with these groups, so we can keep up to date with what concerns they have, if any, about health services where they live.

If you're interested in being part of a group, you can send your details to: **jointhedebate@wales.nhs.uk**

Tell us your name and contact details and which area you're interested in.

Back in 2009-2010, when we started work on how healthcare services should look, clinicians led discussions which involved more than 400 individuals and community group representatives as well as voluntary groups and other public services to help us develop the first stages of our clinical strategy.

We learned from this the value of taking and building upon a wide range of views to shape healthcare services. This process was independently evaluated and was found to meet the guidance from Welsh Government on involvement.

Since that time we have continued to involve many people in the development of the proposals outlined in this booklet. For each service area we have considered, there have been a number of discussion events at which representatives have been invited to give their views. Details of the work we have done on each service area can be found in our Board papers on the website at: **www.bcuhbjointhedebate.wales.nhs.uk**

We have set up 14 discussion groups in local areas which will continue to meet.

We have also taken the opportunity to talk to existing groups such as voluntary groups, groups of town and community councillors, and county councillors to describe the challenges we are facing and discuss their views and concerns.

Regular information has been sent to all our staff through our intranet and via bulletins and staff meetings.

Overall, a very wide range of representatives, including patient and community groups have been able to hear about the issues we are considering and give us their views. This work has involved thousands of people across North Wales over the past few years. In meetings we have held, people have said that they broadly support our priorities and agree we need to change the way we deliver services.

We will carry on involving people to help maintain the relationships that are being built up through this process.

What you have told us so far

These are just a few of the main things people have told us:

We must consider how people reach key hospital services when needed

Our response: many people told us that they are happy to travel for specialist care, but they also want key services to stay at their local acute hospital (Ysbyty Gwynedd, Glan Clwyd Hospital and Wrexham Maelor Hospital). They say they have concerns about families and carers visiting their relatives when they are in hospital.

We have listened to these concerns and are working to maintain key services such as maternity, child health and general surgery at our three acute hospitals. However there are financial and medical staffing risks which the Health Board will closely monitor.

We must consider the needs of people living in rural areas

Our response: we have looked at travel times and will have some additional services in the more remote rural areas. We are using different methods to support people in rural areas to stop them having to travel when they don't need to, for example by using video technology between the patient and the clinician.

We need to improve transport

Our response: we are working to move more care closer to home so that people do not have to travel so far for many services.

We are working with Community Transport Wales, local community transport providers and other voluntary organisations that provide community transport to look at how they can support people to get to health services.

We want to invest £80,000 to support transport for people using health services. We know this won't solve everyone's problem but we think it will help.

We have already drafted a specification for transport providers and spoken to a number of community transport providers in North Wales about our plans, and they are eager to work with us to support transport needs. Over the coming months we will pilot some work with providers to understand better the issues and find new ways to support transport to NHS services.

We will continue to work with the voluntary sector, public transport, local authorities and Welsh Ambulance Service NHS Trust to improve access for all.

We are also working with Welsh Ambulance Service NHS Trust to improve the pathways of care for patients. Skilled ambulance staff can now provide even better care for patients before they reach hospital. The ambulance service is developing a co-ordination centre that will help direct patients to the best hospital for their care, when they need more specialised support.

Discussions are taking place across Wales about developing a 24/7 emergency medical retrieval service, building on the current work of the Air Ambulance Service. The new service, if developed, would use the existing air ambulance service, upgrading helicopters so that they can fly in virtually all weather conditions, day and night, supported by critical care ambulances on the ground. This service would enable our patients to get to specialist hospital services much quicker.

We need to improve communication

Our response: our clinical leaders and the teams working with them are improving communication and co-ordination of services where you live. In some areas, we have set up a single point of contact for referrals and information with social services so that patients can easily get advice or help when needed. We expect this to be in place in all areas within two years.

Support from clinicians for proposals

In the Health Board, our services are managed by professional clinical staff, not general managers. It is our clinicians who have led the service review process and developed the proposals for change, and many clinical staff have taken part in the process.

We can't say that all the doctors (including GPs) and nursing staff support all of the proposals we are making. There are differences of view amongst clinicians. We will take the different views into account as part of this consultation.

"There was agreement that BCU HB has involved a wide range of staff and public in the reviews and that the process was robust with evidence of clinical engagement."

Dr Andy Fowell, Chairman
Healthcare Professional Forum

Our Healthcare Professional Forum – a forum which is made up of representatives of each of the clinical professions and with a role to advise the Board on our plans – has confirmed that they think there has been good clinical involvement in our process.

Our proposals have been presented twice to the National Clinical Forum. This is an independent advisory group established by NHS Wales and made up of representatives of clinical professions from across Wales.

Our feedback from this Forum recognises that there are some challenges but overall they are supporting the proposals for change which have been described in this document. You can see the feedback from the National Clinical Forum on the website at:

www.bcuhbjointhedebate.wales.nhs.uk



4. Healthcare services – our vision for the future

Our vision for the NHS is that people will enjoy health, wellbeing and independence equal to the best.

We want to help people to take responsibility for maintaining their own wellbeing, with family doctors, community nurses and other staff working closely with voluntary and community groups to achieve this.

To do this we want to make sure primary and community services are close to people's homes where possible, are available at convenient times and are consistent and reliable. The same level, range and quality of service should be available to all.

Our hospital services must deliver the highest quality clinical care with the best results. Our acute hospitals (Ysbyty Gwynedd, Glan Clwyd Hospital and Wrexham Maelor Hospital) will continue to provide core services, each playing an important role within the health care system.

However, services at each acute hospital have been evolving.

For example, surgery being done as a daycase instead of the patient staying overnight. This means people can recover at home with their family or carers rather than staying in hospital.

When urgent care is needed, it must be safe and reliable for all. This will give confidence that services are consistently available, safely staffed and meet quality standards.

We work closely with the Welsh Ambulance Service NHS Trust to improve care for patients before they reach hospital. Paramedics are vitally important and form part of the trained and skilled workforce who work with us to provide the best care possible. Improving emergency medical services also means patients being seen quickly by senior doctors and nurses when they arrive at hospital.

Our vision is simple. It requires people to take responsibility for their own health and working with healthcare professionals to extend health and not just life. It means making choices that improve the overall health of the population, the quality and safety of care and in so doing, deliver better value for the money spent.

In North Wales we will:

- Support you to manage your own health and wellbeing
- Offer planned care closer to home or in centres of excellence
- Offer urgent care within a safe time and within a reasonable distance

Helping you stay at home when it's safe and appropriate

No one wants to go to hospital unless they have to and everyone wants to get back home as soon as possible. Healthcare is not about bricks and mortar but about services. We must not judge the quality of care by the number of buildings we have nor the number of hospital beds.

In Wales we have more hospital beds per head of population compared to similar populations in England. This comparison is important because it shows that we still rely on hospital based care when evidence tells us that many people could be cared for at home safely and with better results when supported by GPs, community and social care services. It also means we spend too much on buildings, accommodation and running costs and have less money available for healthcare services.

Evidence shows that patients lose their independence in hospital, may become prone to infection and take longer to recover once home. Our aim therefore is to help people stay at home when it is safe and appropriate to do so. When people do need hospital care, it will be there.

More care closer to home – Consistent and reliable

Some services that have up to now been provided in hospitals can be delivered more locally in community healthcare facilities or in people's own homes. This means fewer people have to go to hospital for their care.

For example, people who need renal dialysis (for kidney problems) don't always have to visit an acute hospital for treatment. We can use our network of community hospitals and clinics and people's own homes for these services.

We need to provide services consistently for the whole population and we believe we need to bring together some of these facilities to enable us to do this.

Getting the best results from specialised services - better services on fewer sites

For people with very complex needs, there is strong clinical evidence that patients have better results when teams work together as a dedicated service.

This means that patients may need to travel further to reach the service, but people have told us that they would be happy to travel in order to have better results.

Already, some cancer surgery is provided in one hospital as a centre of excellence. We will continue to work in this way, guided by quality standards.

Other acute hospital services

Clinicians have been working to improve patient safety in a number of key service areas and many people have made valuable contributions to discussions.

For most of the care provided at the acute hospitals (Ysbyty Gwynedd, Glan Clwyd Hospital and Wrexham Maelor Hospital), we are not at present proposing to make substantial changes.

However this does not mean that there will not be changes in the way we work and the way patients are cared for.

The Board's decision to maintain these services was conditional on improvements being made to meet standards within the resources available.

We must meet the needs of the population for our whole area and make sure people can reach services within a reasonable time.

Each of the hospitals will have an Emergency Department, a midwifery-led unit supported

by a consultant-led maternity service and a Special Care Baby Unit / High Dependency Unit.

They will also have hospital services for children led by consultants, trauma and orthopaedic services, gynaecological services and non-elective general surgery.

There are however real challenges to making sure we can recruit the doctors needed to keep these services safe. We will continue to monitor these services. If we are not able to

recruit enough doctors we may have to think about alternatives in the future.

Patients will continue to use services from other NHS organisations outside North Wales where this is appropriate. These include the Countess of Chester, Robert Jones and Agnes Hunt Hospital (at Gobowen), Alder Hey Children's Hospital, North Staffordshire, Liverpool Heart and Chest Hospital and the Christie and Clatterbridge hospitals for specialist cancer treatment as examples.

Most services will not be affected by the proposals in this booklet.
Each acute hospital will have:

- 24/7 Emergency Department (A&E)
- GP Out of Hours Services
- Surgical emergencies and inpatients – the only change proposed is for complex vascular services
- Medical emergencies and inpatient services
- Intensive care services
- Trauma and orthopaedics services
- Cancer services
- Maternity services
- Child health services
- Mental health services for children and adults of working age
- Pharmacy services
- Diagnostic services
- Therapies
- ...and many other services

We are also continuing with a whole range of planned developments and investments in our major services which will improve care and bring better results:

- ✓ We are redeveloping Glan Clwyd Hospital to remove the asbestos in the building and improve the facilities. We have completed work on the operating theatres and are now working on plans for the rest of the building. We have agreement from Welsh Government to invest more than £100million to do this
- ✓ We have started work to improve facilities at the Emergency Departments (A&E) at both Glan Clwyd Hospital and Ysbyty Gwynedd
- ✓ We are developing more specialist treatment facilities for diagnosis and treatment of some heart problems at Glan Clwyd Hospital (the catheterisation laboratory). This will allow more patients to be treated locally in North Wales rather than travelling to North West England
- ✓ We have developed and are awaiting agreement on the outline business case for Low Secure Mental Health Services

5. Our proposals for change:

Healthcare services where you live - Enhancing care in our communities

Around 90% of the contact patients have with the NHS every day is with primary care, not hospitals. In North Wales, we have:

- 121 GP (family doctor) practices
- 102 dental practices
- 153 pharmacies
- 90 optometrists' practices (eye care)

These provide services for people of all ages. They all play an important role in supporting patients and carers to stay well and making sure hospital care can be reached when needed.

They work closely with each other as well as with social services and the voluntary sector to improve and bring together services in local communities. In each local area we have appointed a leader for this work (usually a local GP) who is helping to redesign and improve services.

Over recent years there has been more importance placed on providing safe, high quality services as locally as possible, closer to people's homes. We have identified our initial priorities in discussion with representatives of local communities.

Our priorities for action

Targeted prevention

We know that there are a number of factors that have an effect on health, and we want to promote good health as well as treating ill health.

'Targeted prevention' means taking action to support people where we can have the greatest impact, by promoting good health and preventing illness.

- GPs and community pharmacists will advise and offer support to people, concentrating on priority areas such as smoking, diet, exercise, alcohol consumption and immunisation

- We will extend health visitors' work with young children and their families
- We will support work to reduce the number of falls older people have
- We will promote patient education programmes which help people with long-term illnesses learn about their condition and live in a way that helps manage this
- We will use more technology to help people identify problems early on and reduce the distance people have to travel
- We will work closely with social services to identify and support carers



Enhanced care at home

In 2010 we developed a new service in north Denbighshire to provide more care for people in their own homes who might otherwise need to go into hospital. This is now being extended into other areas.

The patient's GP practice decides with the patient and their family whether they can be safely cared for at home with extra help from nurses, therapists, social workers and voluntary organisations. This care is available 24 hours a day, seven days a week.

This includes improving care for patients at the end of their life, bringing together primary care (GPs), community services, hospices and specialist end-of-life teams to support people to die at home. This work has already started.

The Community Health Council undertook a survey of people using this service and also their carers. Just over a third of patients and half of carers returned the survey and the feedback was very positive, with a few suggestions for improvement which are being addressed.

A Rhyl carer whose mother used the service said:

"We hold the service in the highest regard. The entire team provided a super service at a time when our needs were at their greatest. The staff were knowledgeable, wise, and endlessly helpful. I cannot thank them enough"

"I would suggest that this service is one of the ways forward to deliver healthcare to the community. It means that we can obviously look after patients with more complex medical needs than would be in our normal workload with the help of the team."

- Prestatyn GP



Moving care from hospitals to the community

End of life care

Advance care planning is a way of planning complex care in advance rather than waiting for problems to occur.

Mr W had terminal cancer. He had completed an advance care plan which explained what he wanted. He wished to stay at home and, if possible, to die there.

When his condition worsened the professionals, including social care and voluntary services, all worked together to care for him at home.

The North Wales GP Out of Hours Service and community nursing service knew of Mr W's wish to remain at home and made sure that he and his wife were fully supported. He died with dignity in the peace of his own home.

Our clinical staff are already moving services into local areas to bring better results for patients. Work has started on the services below as the first phase and it is expected that patients in all areas will benefit from these by 2013.

These include:

- More end of life care support so that people can choose to die in their own home
- Co-ordinated care to help patients manage pain better
- More blood tests in the community – such as for patients on Warfarin so that they don't have to go to the acute hospital
- Pre-operative assessment – checking a patient's health before they have a planned operation
- Improving access to mental health services for children
- More care in the community for people with dementia
- More support for people with respiratory diseases
- More services for people with hearing problems

- Community based Heart Failure Service
- More outpatient services using different methods, e.g. telephone advice, appointments using video technology, and appointments with senior nurses

We will carry on looking at other services that can move from hospitals into local communities. We will need to release money from hospitals and other buildings to do this. We will monitor and discuss our progress with the Community Health Council.

Hospitals in our communities

Across North Wales, we have community hospitals in various locations and many of these were built before the modern NHS was established.

These hospitals have provided an excellent service for local communities.

However, some of them are now old and need a lot of maintenance work and some are not suitable for providing the full range of services which we want to provide in local areas.

At the moment, there are different services available in these hospitals at different times. From time to time, it is difficult to keep safe staffing levels at some of our hospitals, which has meant we have had to close some services on a temporary basis. This isn't good for our patients or our staff. Spreading our resources too thinly will mean we continue to experience difficulties.

We need to be able to have services which are safe and reliable.

To do this, we need to change how and where some services are provided.

We have identified a number of hospitals which can act as hospital 'hubs' in local areas. Here we will provide:

- Inpatient beds
- Minor Injuries Services – seven days a week
- Outpatient services
- Physiotherapy, occupational therapy and other therapy services
- X-ray – five days a week

Most community hospitals which are not hubs will carry on providing a range of inpatient, outpatient, therapies and other services.

What is a hospital 'hub'?

A 'hub' is a place that acts as the centre for services for a number of communities.

We will strengthen services at the hubs to make sure they are consistent and reliable. This is particularly important for minor injuries and X-ray services.

The table at Appendix 1 (Pg 42) summarises the services which will be at hospitals in the community if our proposals are accepted.

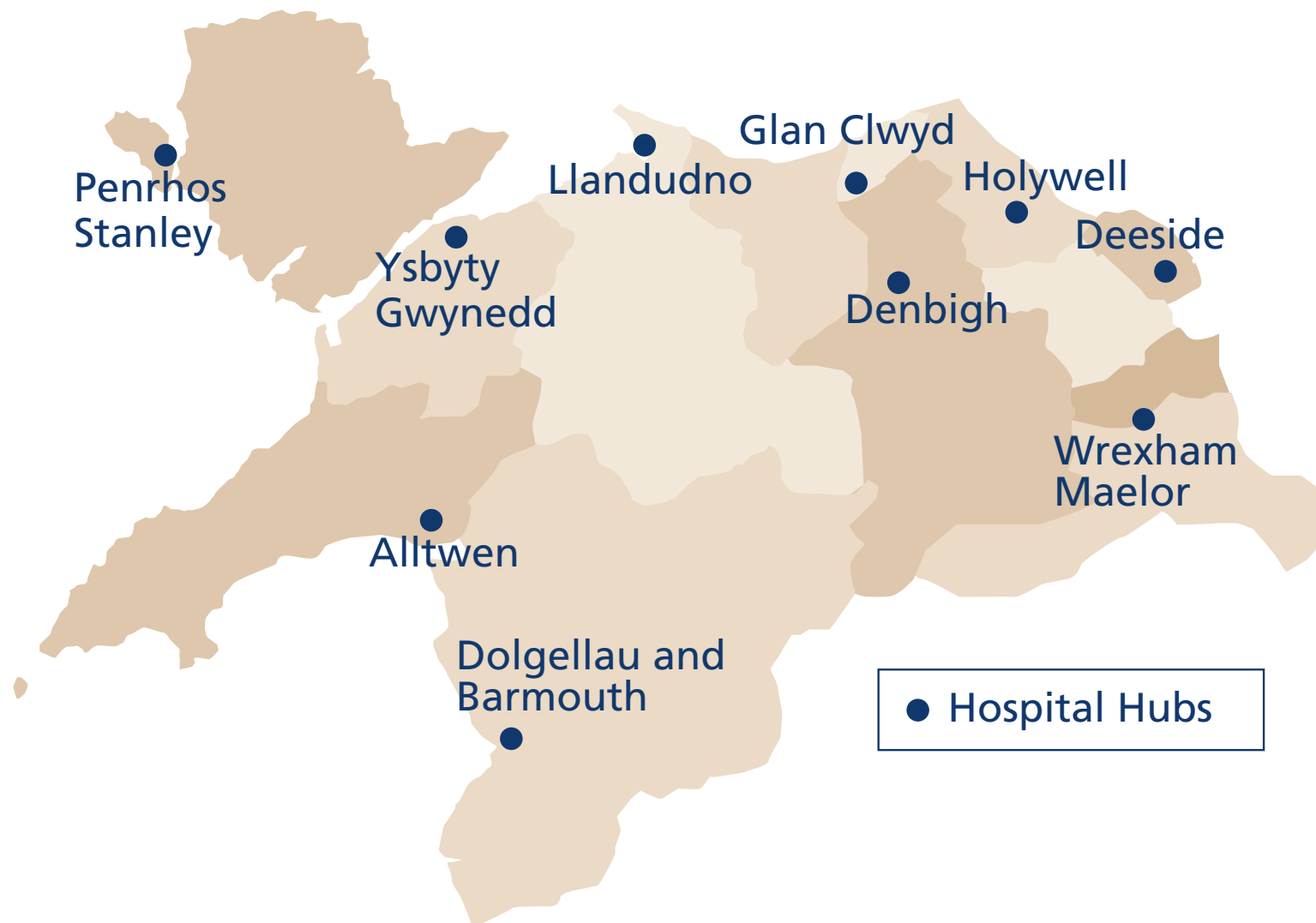
Our proposals for hospital hubs

Hospitals which we propose will act as hubs or main centres of services for our communities:

- Ysbyty Penrhos Stanley, Holyhead
- Ysbyty Gwynedd, Bangor
- Ysbyty Alltwen, Tremadog
- Dolgellau and Barmouth Hospital
- Llandudno Hospital
- Glan Clwyd Hospital, Bodelwyddan
- Holywell Community Hospital
- Deeside Community Hospital
- Wrexham Maelor Hospital
- Denbigh Infirmary

Using these as the hubs means that services are available within 40 minutes average drive time for 99.6% of our population.

We have included the three acute hospitals in this list because the communities that live close to them use these hospitals for X-ray and minor injuries as well as other services.



What this means for minor injuries services

A minor injury means something like a minor head injury, sprains, simple cuts, burns or scalds, insect bites, stings or animal bites, something in your eye.

If you go to a Minor Injuries Unit a trained nurse will check and treat you, or if appropriate, refer you to another hospital. No appointment is needed.

If your nearest hospital hub is also an Emergency Department (A&E), nurse-led minor injuries services are available here.

In the Emergency Department (A&E) staff must give priority to serious and life threatening conditions, so if you go there with a minor injury you may have to wait longer to be seen.

Currently, minor injuries services are open at different hours and are sometimes used very differently. In some places they are well used, and in others, as few as two patients a day use these services. An emergency nurse practitioner in a Minor Injuries Unit has capacity to see around 2,500 patients a year. Some of our current services are a long way from this level and therefore don't make the best use of our nursing staff.

We will also have minor injuries services provided by GPs in some of the very remote areas. We are proposing to provide minor injuries services at the hospital hubs, seven days a week, with core opening hours. This will mean wherever you are in North Wales, you will know when you can use these services and they will be reliable.

To do this we are proposing to close some of the less used services and re-locate some others to concentrate the skilled nurse workforce in the hospital hubs.

We are proposing to close the minor injuries services currently provided at Ffestiniog Memorial Hospital, Colwyn Bay, Ruthin, Llangollen, Flint, Mold and Chirk Hospitals.

People who have used these units in the past could choose to use any of the hospital hubs that are easiest for them to get to.

We are also proposing to open the Minor Injuries Unit at Deeside Hospital.

Because of the problems with travel in some of our rural areas, together with the increased use of services in holiday times, we are proposing to continue minor injuries services but with slightly different opening hours to reflect holiday demand at Bryn Beryl Hospital Pwllheli and Tywyn Hospital.

These changes will allow the reliable provision of a core service which can work more closely with the North Wales GP Out of Hours Service to better meet patients' needs.

What this means for X-ray services

X-ray services

At the moment, in some hospitals, X-rays are only available for a couple of half-days each week.

This means on some days patients have to travel all the way to an acute hospital – driving past other facilities on the way. This is because the opening times are different, so patients don't know when other more local facilities are open.

By bringing X-ray services into the hospital hubs, we will provide services five days a week, for the same core hours, and will be able to make sure we have up to date equipment that will mean a better service for patients.

X-ray services that are reliable and available locally are very important to patients and carers. They may often prevent the need to travel long distances to an acute hospital. Like Minor Injury Units, at the moment, X-ray services are not always consistent or reliable.

To make these services more efficient, 5 patients should be seen per hour. Some of our X-ray facilities are seeing fewer than 2 patients per hour. This does not make best use of resources and because X-ray facilities are open at different times and different days of the week, patients often cannot reach a service locally when they need it most. Also, some of our X-ray equipment is old and outdated and cannot be relied on for much longer.

We can provide more consistent services, available five days a week in the community if we have X-ray services in fewer places. They will be open for the same core hours, Monday to Friday.

As well as providing X-ray services at the hospital hubs, we would also provide them from Colwyn Bay Hospital. X-ray will also be provided from the Royal Alexandra Hospital, Rhyl, until a new facility is developed to replace the Royal Alexandra and Prestatyn Community Hospital (if these proposals are accepted.)

We are also introducing digital imaging – technology that shares X-rays so that your specialist can see them as soon as they have been taken. This will be available across North Wales by the end of 2012.

To enable these improved X-ray services, we are proposing to close the X-ray services currently provided at Blaenau Ffestiniog Health Centre; Bryn Beryl Hospital, Pwllheli; Tywyn Hospital; Eryri Hospital, Caernarfon; Mold Community Hospital and Ruthin Community Hospital.



What this means: other changes we are proposing

It is healthcare services which are most important – not the buildings or premises in which they are provided.

In some areas, we are not providing the best response to the health needs of our population and we can do better. This is harder to do when we don't have good quality premises.

It is also increasingly difficult for us to make sure patients have the care they need when we do not have safe staffing levels at some of our smaller hospitals. It is safer and more efficient in some cases to care for patients on fewer sites.

There have already been changes and improvements in a number of areas that have allowed us to provide better services:

- ✓ New primary care facilities in Abergele, Amlwch, Bethesda, Caernarfon, Connah's Quay, Llanrwst, Mold, Rhyl, Ruabon and Holywell
- ✓ We have approval for more new primary care facilities in Caia Park (Wrexham), Chirk and Buckley, Felinheli, Benllech and Harlech
- ✓ Modern community hospitals at Alltwn (Tremadog), Holywell and Deeside

- ✓ We are continuing with plans to improve services at Llandudno Hospital and will be submitting a business case to Welsh Government for around £40million
- ✓ We have submitted a business case for development of facilities at Tywyn Hospital to Welsh Government

There are a number of areas where we have yet to make further changes and developments which would tackle some of the problems with our services and enable us to provide better care for patients overall. The following pages set out the detail for these areas.



Blaenau Ffestiniog

Ffestiniog Memorial Hospital currently has:

- 12 inpatient beds (8 currently in use)
- X-ray services (provided at the Health Centre) for four sessions a week
- Minor Injuries Unit open seven days a week from 8.00am - 4.00pm (used by an average of 3 people per day, temporarily closed)
- Occupational therapy and physiotherapy

Some outpatient services and dental services are provided in the health centre opposite the hospital.

The hospital was opened in 1925 with contributions from local people in memory of those who had died during the First World War. The population in Blaenau Ffestiniog has a younger profile than the Welsh average and there are relatively high levels of deprivation in the area.

Use of the hospital beds and Minor Injuries Unit has changed over recent years and the building itself would need major change to improve its physical condition. We have had to take action on occasions to reduce services on a temporary basis because we have not been able to keep staffing levels safe.

The hospital has been subject to a number of reviews in recent years and most recently there has been an independent review undertaken by Dr Edward Roberts, GP and Vice Chairman of Abertawe Bro Morgannwg University Health Board requested by the former Health Minister, Edwina Hart. We have considered all the issues raised in the previous reviews and reports, together with feedback from discussion events held with local representatives.

Proposals already discussed in this booklet:

- The development of the enhanced care at home service to help people stay at home rather than needing a hospital admission, when it is safe and appropriate to do so
- The Minor Injuries Unit and X-ray provision should close

Additional proposals for Blaenau Ffestiniog:

- We have started discussions with Gwynedd County Council and housing associations to plan building new health, social care and housing, so that we work together in partnership to develop more appropriate services

- We continue to use the hospital building to provide a base for better community services and consider expanding primary care services
- We propose to close the inpatient beds, and patients who need a community hospital bed would have this care at Ysbyty Alltwn

Ysbyty Alltwn is 14 miles from Blaenau Ffestiniog, and is a new hospital with modern facilities and capacity to support more patients.

In order to develop primary and community services we would invest around £4m to redevelop existing facilities, subject to development of a business case. This would help secure community based services for the local population and would take about three years to develop.

North Denbighshire - Rhyl and Prestatyn area

The north Denbighshire area is a densely populated coastal community, with high levels of deprivation (particularly in parts of Rhyl) and a high proportion of older people (particularly in East Rhyl and Prestatyn). There are also high levels of mental health needs.

There are two community hospitals in the area, the Royal Alexandra Hospital, Rhyl, and Prestatyn Community Hospital.

The Royal Alexandra Hospital no longer has inpatient beds. These were closed in 2010 because of failure to meet Fire Code requirements. The Royal Alexandra currently has:

- A wide range of outpatient services
- X-ray service for 10 sessions a week
- A wide range of therapy services
- Community dental services
- Other services such as sexual health clinics and child health clinics
- A base for the enhanced care at home service, and community nurses

Prestatyn Community Hospital currently has:

- 12 inpatient beds (9 currently in use)
- Therapy services
- Occasional clinics

The enhanced care at home service is already in place in north Denbighshire.

Both hospitals have problems with their premises which would require major improvements to provide a facility suitable for integrated and modern community services.

The north Denbighshire project has been considering the health needs of the population and also the evidence of what works well.

Details of the extensive project work undertaken are available on our website at **www.bcuhbjointhedebate.wales.nhs.uk**

What this means

We have looked at a range of scenarios in discussion with community representatives.

Following this, our intention is to develop a business case for submission to Welsh Government for a new NHS community hospital. This will bring together a range of services by redeveloping the current Royal Alexandra Hospital site. This could have NHS beds, outpatient clinics, X-ray services, therapies and some social care and voluntary sector services. Patients with minor injuries will continue to use Glan Clwyd Hospital.

The development would replace the current Royal Alexandra Hospital, Prestatyn Community Hospital, Glan Traeth, Lawnside Child and Adolescent Mental Health Service and dental clinics in the area.

Further work is taking place to plan the number of inpatient beds needed taking account of the needs of the residents of the area and the changes underway at Glan Clwyd Hospital. We expect the facility would have approximately 30 beds.

There is an estimated budget in the Wales Capital Building Programme of around £21m for this development, subject to business cases being approved by the Health Board and Welsh Government.

The development would be completed by 2015.

Llangollen

The ability of the health service, Denbighshire County Council and other agencies to improve services in Llangollen has been limited by existing health and social care facilities and the lack of suitable, accessible sites for a new development that would bring services together.

The existing Llangollen Community Hospital has:

- 18 inpatient beds (10 are currently in use)
- Minor Injuries Unit from 8.30am – 6.00pm Monday – Friday (currently closing at 3.30pm for a temporary period) - average attendance less than 1 patient per day
- Therapy services including occupational therapy, physiotherapy, chiropody, phlebotomy (blood tests) and dressings

There have been a number of reviews of services and the estate in Llangollen. The most recent work has recommended that the way forward should be a shared development which brings together primary, community, social care and voluntary sector services, in an extended primary care centre.

A wide range of services could be provided from the centre such as GP services, other healthcare services, therapies, mental health care services and social care. An initial assessment has identified the River Lodge site

as the preferred site for this development (subject to availability and completion of detailed work through the business case process) should our proposals be accepted.

The needs of many patients who are currently admitted to Llangollen Hospital will be met through the new enhanced care at home service, which is being developed in south Denbighshire and south Wrexham.

Some people would still need care in a community-based bed and we are proposing that this would be provided through 24 hour care at home, local care homes supported by health staff, or using beds at Chirk Community Hospital.

Proposals already discussed in this booklet:

- We will develop the enhanced care at home service to help people stay at home rather than needing a hospital admission, when it is safe and appropriate to do so. This service could be in place by 2013
- Minor injuries services may be provided by GPs

Additional proposals for Llangollen:

- Where care in a community-based bed is needed, this should be provided from local care homes or from Chirk Community Hospital. Chirk is seven miles from Llangollen
- The current Llangollen Community Hospital would close
- The GP surgery would move to the new premises

In order to develop the new extended primary care centre we would submit a business case to Welsh Government. We anticipate the buildings investment would be in the region of £5.5m. This would help secure community based services for the local population.

This development could be completed by 2015, if the business case is approved and capital funding is made available by Welsh Government.

Flint

In recognition of the need to develop the town, Flintshire County Council is in the process of completing a detailed 'master plan' for the town of Flint. The current health care premises in the town are not suitable for delivery of future services needed by the population, and the ability to improve services is being limited by the facilities.

Flint Community Hospital has:

- 14 inpatient beds (currently 10 in use)
- Minor Injuries Unit open seven days a week from 9.00am – 7.00pm (used by about 6 patients a day)
- Therapy services including audiology, physiotherapy, occupational therapy
- Phlebotomy (blood tests)

Over recent months the Health Board has had to make temporary closures to some services at Flint Community Hospital because of our inability to keep staffing levels safe when resources are spread thinly between different services. We know this is not good for patients or for our staff.

There have been previous reviews of Flint Community Hospital which have proposed closure of the hospital facilities and the development of a new primary care resource centre. This would provide better primary and community services for local people, with inpatient beds being provided in neighbouring areas where there are newly developed facilities.

Proposals already discussed in this document:

- Enhanced care at home is developed for the population to allow patients, whenever possible, to be cared for in their own homes. This service would be in place by 2013
- X-ray services would continue to be provided at Holywell Community Hospital
- Minor injuries services would also be provided at Holywell Community Hospital

Additional proposals for Flint:

- Further work is undertaken with Flintshire County Council to support the development of the 'master plan' which will help local organisations work together to meet the needs of the local population

- A new primary care resource centre is developed which replaces current poor quality premises and allows the delivery of improved primary care and community services
- Where care is needed in a community hospital inpatient bed, this is provided at Holywell Community Hospital

Holywell is a modern hospital which is 5 miles away from Flint.

When we plan a new primary care resource centre, we will consider whether we can use the opportunity to provide new accommodation for other services in the area such as clinics. We will look at this if proposals are accepted.

In order to develop the new extended primary care resource centre we would submit a business case to Welsh Government for approval and funding. We anticipate the capital investment for the building would be in the region of £4m.

The work could be complete by 2016.

Services for people living in the Tywyn area

People living in the Tywyn area of Gwynedd use some of the health services which are provided by Hywel Dda Health Board.

This may be in the community, at Tywyn Community Hospital, Bronglais Hospital or other facilities provided by Hywel Dda Health Board. We have submitted a business case to Welsh Government for development of the facilities at Tywyn Hospital.

We will work with Hywel Dda Health Board to make sure services are meeting the needs of residents in this area. This includes looking at patient pathways of care. It may sometimes be better for patients to go to Wrexham or the North West of England rather than south Wales when specialist hospital services are needed. We will work with Hywel Dda Health Board and Welsh Ambulance Service NHS Trust to enable this to happen.

Hywel Dda Health Board is also considering changes to healthcare services. We recognise that it is important to hear the opinions of people living within our area about these changes. We are working with Hywel Dda Health Board to ensure all opinions and views about their proposals for change are taken into consideration. You can find information about Hywel Dda Health Board's proposals online at **www.hywelddahb.wales.nhs.uk/Consultation**

We are collaborating with both our neighbouring Health Boards – Hywel Dda Health Board and Powys Teaching Health Board and the Welsh Ambulance Service NHS Trust in the course of normal day-to-day healthcare. We ensure that patients resident in one Health Board, but receiving healthcare in another, have a smooth, high quality service. We also want to make sure that between us, the Health Boards make the best use of resources to give the best care for patients.



6. Older people's mental health

It is good that we are living longer. Older people have an important position in family life and in the community. Maintaining health and wellbeing for older members of society is a shared concern for us all.

In North Wales, it is expected that the number of people with dementia will increase by 68% over the next 20 years. The number of people with dementia roughly doubles every five years from the age of 65 onwards.

This is very challenging for patients and their families and carers as well as for the NHS. We need to improve how we respond.

There are also other reasons why we have to change the way we provide services for older people with mental health needs:

- Early diagnosis - based on all Wales figures, it is possible that there are about 10,000 patients across North Wales without a firm diagnosis
- Quality – we do not always meet national quality standards and some of our accommodation is not fit for purpose
- Workforce – medical recruitment is difficult in some areas (particularly in south Gwynedd)

- Community Services – In some areas these services are not well developed and more is needed
- Hospital beds – bed occupancy rates are low in many of our units, and average length of stay is high



Our vision for better services

We have talked with a wide range of people including older people, younger people with dementia and their carers.

These are the things they have told us we must improve:

- Early diagnosis, including younger onset and people with a learning disability
- Keep good access to mainstream services such as GPs, social services, community nurses, pharmacy, dental services etc
- Better co-ordinated health and social care services available every day of the week
- Work more closely with the voluntary sector
- Provide or support respite care and re-assessment in care homes or hospitals
- Quick access in a crisis

To deliver these improvements we are proposing the following changes in community services.

Flintshire and Wrexham

- Strengthen community mental health teams to provide longer hours of service as well as support to patients in care homes
- Strengthen nurse liaison services when patients move between community services and Wrexham Maelor Hospital
- Strengthen memory services to support early diagnosis
- Support in a crisis - the home treatment teams will provide additional support to older people

Conwy and Denbighshire

- Strengthen community mental health teams to provide longer hours of service as well as support to patients in care homes
- Strengthen nurse liaison services when patients move between community services, Llandudno and Glan Clwyd Hospitals
- Strengthen memory services to support early diagnosis
- Support in a crisis - the home treatment teams will provide additional support to older people

Anglesey and Gwynedd

- Strengthen community mental health teams to provide longer hours of service as well as support to patients in care homes
- Strengthen nurse liaison services when patients move between community services, Llandudno Hospital and Ysbyty Gwynedd
- Strengthen memory services to support early diagnosis
- Support in a crisis - the home treatment teams will provide additional support to older people

What this means for inpatient beds

Mrs G was diagnosed with dementia two years ago. She had lived on her own since her husband died. Mrs G refused to stay in when carers from a local agency came. She stopped looking after herself, wouldn't change her clothes and was forgetting to wash or eat.

The Community Older Persons Team was called and quickly managed to improve things, such as working with her and her family to sort out her medication. She was less anxious and had fewer extreme mood swings. This helped her stay at home longer and carry on doing daily tasks for herself.

Eventually Mrs G did move into a care home. Her daughter said, "The team helped us with getting Mum to understand and helped with the transition. They continued to see Mum and supported care home staff to look after her. It was a difficult decision but I was comforted that she'd been able to have that extra year at home."

- We propose to confirm permanent closure of the inpatient beds at Hafan Ward (Bryn Beryl Hospital) and Uned Meirion (Dolgellau and Barmouth Hospital) which have been closed for over two years
- There will be a gradual reduction in beds at Cefni Hospital Llangefni as community services are strengthened. In the longer term we will consider moving all inpatient services to Ysbyty Gwynedd. This is because we can provide better specialist care for the most vulnerable when we have back up from other hospital services
- Replace inpatient beds currently provided in Glan Traeth in Rhyl with facilities either as part of a new North Denbighshire development (if these proposals are accepted) or at Glan Clwyd Hospital

We believe these changes will offer a better quality service for patients and their carers, continuing the move away from the old fashioned institutionalised model of care. This will release approximately £1.5m which will be reinvested in the community services we have proposed.

The developments will be in place by 2015.



7. Neonatal intensive care services

In North Wales, there are around 7,300 births per year.

All three acute hospitals provide neonatal services for babies who need some support following birth. These may be babies born early, or babies born when due but who have a difficult delivery or become unwell in the first few days.

All three hospitals will continue to provide initial stabilisation and immediate short-term intensive care as well as Special Care Baby Units and high dependency units.

However, some babies need longer term intensive care and this should be provided in a larger neonatal intensive care unit. The number of babies in North Wales who will need this level of longer term care will be around 36 each year.

At the moment, longer term neonatal intensive care is provided at both Glan Clwyd Hospital and Wrexham Maelor Hospital. However, some babies have been cared for at Arrowe Park Hospital on the Wirral.

There are national standards for neonatal services in Wales and the UK. Our services do not meet these intensive care standards and there are particular difficulties with staffing levels. To set up a single large neonatal unit in North Wales would be difficult in terms of recruiting sufficient staff and very challenging financially.

We have been looking at ways to address this problem. The clinicians' preference is to develop a service in North Wales, because of benefits this would bring in terms of access.

The Board has considered this but as described above, there are significant challenges in recruiting enough highly specialist staff. There is a shortage of specialists across the UK and there are increasing costs on providing this care for a small number of very sick babies.

Our proposal therefore is for all longer term neonatal intensive care to be provided from Arrowe Park Hospital because we believe they can provide good quality sustainable services into the future. This includes accommodation for families on site.

Neonatal services is the term used to describe the support given to newborn babies during the weeks or months immediately following birth.

Very few babies will need intensive care support. The most common reason for this is if a baby is born too early. Sometimes, support is needed if there are complications during or following the birth.

Mums and their families want the best care possible for their babies when this happens.



8. Vascular services

At the moment, we provide these services at all three acute hospitals in North Wales.

Vascular services are being looked at because:

- Vascular surgery is becoming much more specialised and this affects how services are organised
- There is clear and growing evidence that there is a positive link between how much surgery is undertaken in a hospital and better results for patients

Vascular services involve operations on veins and arteries, including treatment for a partial or total blockage of an artery.

These services can also include treatment for aneurysms, a bulge in an artery that can weaken it, causing it to leak or burst.

Emergency treatment can include life threatening emergencies, such as a larger artery bursting (burst Aortic Abdominal Aneurysm or AAA), when there is a critical lack of blood to a limb, or injuries from road traffic accidents.

- Screening for abdominal aortic aneurysms (AAA) is being introduced for men aged over 65 based upon clear clinical guidelines from professional groups. This will reduce the number of emergency operations and give patients a better chance of survival
- The way vascular surgery is done is changing, which will reduce how much traditional 'open' surgery is done

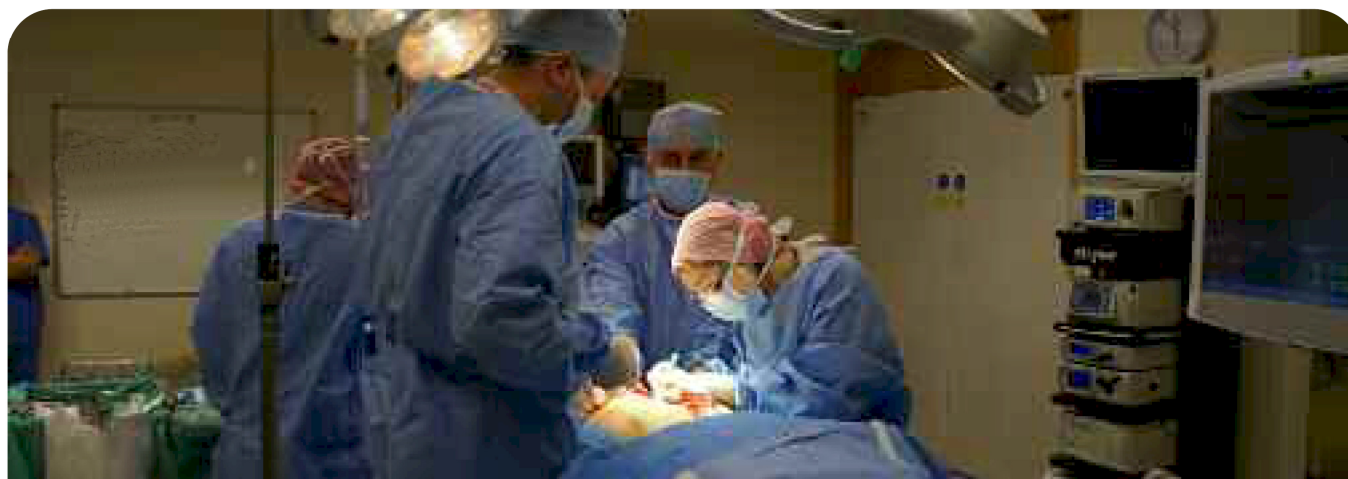
Our local vascular clinical team agree that major arterial surgery (which involves about 300 cases per year) has to change. This is so we can improve safety and quality. The clinicians leading this work have proposed that this surgery should be done at either one or two hospitals and many of the vascular clinicians thought that two sites would be preferable as quality standards could be maintained with more local access.

Our proposal

Having considered their work, the Health Board believes that we can achieve the best results for patients if this complicated arterial surgery is provided in one acute hospital in North Wales. We would also concentrate emergency vascular surgery at the same hospital.

A single, larger team will mean that patients will continue to get better results and the service will be more efficient.

Routine vascular services and care before and after operations would continue to be provided in all three acute hospitals. We are still considering which hospital would be best, if we do move services to one hospital. You may want to tell us your views about this.



9. Equality Impact Assessment

We want to be sure that when we make a decision that affects our service users or staff, we do so in a fair, accountable and transparent way. We need to take into account the needs and rights of those who might be affected as far as possible.

We have looked at equality and human rights considerations for all our proposals, using a method called Equality Impact Assessment Screening. This includes specific consideration of the Welsh language. Copies of the Equality Impact Assessment screening work are available on our website.

We are continuing to build on the work done so far and thinking about the overall impact of all these proposals.

We will continue to update the assessment now that our proposals are clear. We would be interested to hear from you if you believe there are any positive or negative impacts that the Health Board should take into account in the decision making process.

We have considered whether there is any impact from our proposals for people who speak Welsh and on the Welsh language.

We have also considered whether there is any potential impact of our proposals on groups including:

- Age
- Gender reassignment
- Sex
- Race – including ethnic or national origin, colour or nationality
- Disability
- Pregnancy and maternity
- Sexual orientation
- Religion or belief – including lack of belief

10. Implementation of proposals

We believe the proposals described will help make the changes needed to make best use of resources, meet the needs of the population and meet quality standards.

If the proposals are accepted, the Board will make arrangements to manage the detailed planning needed before changes can be implemented.

This will be led by clinicians and will include a wide range of representatives including staff side and unions, Community Health Council, and representatives of other organisations. For proposals which will need capital money for building work, a business case will need to be developed.

This table gives an estimate of the time it would take for each of the proposals to be implemented. The shaded area indicates that the work will continue, with further proposals being identified after the first stage.

| Proposals: | 2012 | 2013 | 2014 | 2015 | 2016 |
|--|------|------|------|------|------|
| Moving care into the community | | | | | |
| Commence roll out of enhanced care at home across North Wales | | | | | |
| Changes to minor injuries services | | | | | |
| Changes to X-ray services | | | | | |
| Redevelopment of Ffestiniog Memorial Hospital | | | | | |
| Development of north Denbighshire facility | | | | | |
| Development of Llangollen primary care centre | | | | | |
| Development of Flint primary care centre | | | | | |
| Development of Tywyn hospital | | | | | |
| Investment in community service – Older peoples' mental health | | | | | |
| Confirm closure of mental health beds – Bryn Beryl Hospital and Dolgellau and Barmouth Hospital | | | | | |
| Reduction in beds at Cefni Hospital | | | | | |
| Move Glan Traeth services | | | | | |
| Commission Neonatal Intensive Care Service | | | | | |
| Concentrate vascular services onto one site | | | | | |

What these changes may mean for patients and staff

How patients will benefit from these proposals

These proposals will provide better results for patients including:

- ✓ For vascular services, better clinical results and greater survival chances
- ✓ For neonatal services, better care through services which meet the standards
- ✓ For services in communities where you live, better care through greater consistency and reliability; more people cared for at home rather than admitted to hospital; better co-ordination and communication between different services and, we believe, greater satisfaction with services
- ✓ For older people's mental health, more people helped to stay at home living independently, earlier diagnosis and support and better co-ordination of services

What these changes may mean for staff

Staff are clearly an important part of the consultation process and their concerns about job security will be important not just to them but to the wider community. A series of events will be held for staff to give their views.

We rely on our skilled staff to help us deliver the changes needed and want to make sure that we work with them to do this. We will work in partnership with staff side representatives and trade unions to support our workforce through the transition if the proposals are accepted.

We will support the development needs of any staff affected by these changes so that they are able to work safely and confidently in the new arrangements. We will do this as appropriate by providing training, using skills and experience and through encouraging staff to work in different settings. This will build confidence in working in the community and with colleagues in social care, the voluntary sector and others.

By concentrating specialist services at fewer hospitals, we will make better use of clinical and support staff.

All staff changes will be managed in line with the All Wales Policy on Staff Changes and we

will always give consideration to issues affecting staff such as transport, family and carer responsibilities.

We will monitor the impact of services and report to our Board how the changes are supporting better patient care.

If the proposals are accepted, the Board will require assurance that the implementation plans will help us have services that are fit for purpose, meet the needs of our population, are safe and affordable and will remain so for the future. As part of this we will ensure that the resource requirement is understood and a thorough assessment of any risks is in place.

We have identified some of the risks already in this booklet – such as recruitment of staff, the financial position of the Board and possible impact on certain community groups. We will consider these and take action to reduce these where we can. We believe however that there is a greater risk in not taking forward these proposals.

11. Have your say on our proposals

Now we would like to hear from you.

We would welcome any views or contributions you would like to make. You can send us these by emailing **jointhedebate@wales.nhs.uk** or by writing to the Health Board.

We need to make sure we consider all the views sent to us before any decisions are made.

There are a number of ways you can let us know your views:

- You can complete the feedback questions with this booklet and send to: **Opinion Research Services, Freepost SS1018, PO Box 530, Swansea SA1 1ZL**
- You can complete the feedback questions on line at:
www.bcuhbjointhedebate.wales.nhs.uk
- You can write to the Health Board at:
**BCU Health Board Join the Debate,
FREEPOST
RSZZ-SGXY-TSEZ
LL17 0JA**
- You can email your views to:
jointhedebate@wales.nhs.uk

This booklet.....

You can request further copies of this consultation booklet by emailing: **jointhedebate@wales.nhs.uk**; or calling **Freephone 0800 678 5297**

You can download a copy from our website at **www.bcuhbjointhedebate.wales.nhs.uk**

We can provide you with a large print version or other formats or languages on request.

Please call us on **Freephone 0800 678 5297** or email: **jointhedebate@wales.nhs.uk**

The consultation runs from 20 August 2012 to 28 October 2012

'Ring and book' consultation events

There are a number of ways you can be involved in the consultation, including a number of events during the consultation period. Details of how to take part will be on our website:

www.bcuhbjointhedebate.wales.nhs.uk

We will also advertise events in local newspapers. You can call us on **Freephone 0800 678 5297** to book into an event in your local area.

The dates and locations are set out opposite. Meetings will be held in the afternoons and evenings.

The Health Board is holding a series of public meetings during the consultation period. This is an opportunity for you to join the debate in person. To book a place, please call us on **Freephone 0800 678 5297**.

Sessions are scheduled to start at 2.00pm, 4.00pm and 6.00pm to give more people a chance to get involved. If you wish to attend, please book a place by calling **Freephone 0800 678 5297**. All venues have wheelchair access. If you have any additional requirements please tell us when you book a place.

| Date | Location | Venue |
|------------------------|--------------------|---|
| Tuesday 4 September | Connah's Quay | Council Chambers |
| Thursday 6 September | Blaenau Ffestiniog | Blaenau Community Centre |
| Friday 7 September | Llangefni | Council Chamber |
| Monday 10 September | Rhyl | WCVA, Morfa Hall |
| Tuesday 11 September | Prestatyn | Scala Cinema |
| Wednesday 12 September | Chirk | Parish Hall |
| Friday 14 September | Old Colwyn | Eirias Park |
| Tuesday 18 September | Flint | Council Chambers |
| Wednesday 19 September | Tywyn | Corbett Arms Hotel |
| Thursday 20 September | Ruthin | Llanfwrog Community Centre |
| Friday 21 September | Pwllheli | Sailing Club |
| Monday 24 September | Caernarfon | Plas Menai National Watersports Centre |
| Tuesday 25 September | Llandudno | Craig y Don Community Centre |
| Wednesday 26 September | Llangollen | Town Hall |
| Friday 28 September | Mold | Theatr Clwyd |
| Monday 1 October | Wrexham | Catrin Finch Centre, Glyndŵr University |

Opinion Research Services (ORS) are also organising a number of small discussion groups and a sample household survey to capture the views of people who may be affected by the proposals.

Would you like to give your views to an independent organisation?

The Community Health Council is your independent NHS Watchdog. It offers free independent advice about local health services and a way for you to have your say about local and national NHS services. If you prefer, you can make your views known by emailing the Community Health Council in confidence at **yourvoice@bcchc.org.uk** or telephone **01248 679284**.

Confidentiality

What will happen with the questionnaires we receive?

All completed questionnaires will be processed and reported by ORS, a specialist social research practice appointed to undertake this work. Your views will be confidential: no one except the ORS research team will see your questionnaire and no one will be identified in their general report.

What will happen with other written submissions (letters, emails and other documents) we receive?

Other written responses will be summarised by ORS and sections or complete documents may also be published in full on our website, with the name of the person or organisation concerned. Organisations will always be identified, but if individual respondents do not want their names and address published, please tell us this clearly in writing when sending your response and we shall blank those details before publishing your submission. If Freedom of Information requests then ask for information we have withheld, we would still not publish your personal information without very good reason, and we would always contact you first.

What will happen with the ORS report?

ORS will prepare a stand-alone Executive Summary and a full Report of the consultation findings and, before the Health Board makes a final decision, it will consider all the feedback received. The ORS report will also be provided to the Community Health Council and be made widely available once the consultation is over.

12. What happens next?

After we have considered the consultation report and any other information gathered, we will look again at the proposals we have made. We will be interested in the overall response to the feedback questionnaire and also your reasons for supporting or not supporting a proposal.

We will also take account of the views of the Community Health Council and any views they have heard.

The Health Board will decide, in the light of the consultation and other information gathered, whether to proceed with the proposals we have been considering or to amend them in the light of consultation feedback. The Board will meet in public to discuss this and the date and venue will be advertised on our website; we anticipate this will be during December 2012.

If the Board decides to go ahead with the proposals, we will start to bring these in early in 2013 and will aim to finish the changes by 2015. We will develop a detailed action plan and involve our partners and others in this. If you are interested in being kept informed of the progress of any proposals we implement, you can email us at **jointhedebate@wales.nhs.uk**.

All responses need to be made by 28 October 2012

Appendix 1: Summary of what the proposals would mean by county

| | Beds | Out-Patients & Daycare | X-Ray | Minor Injuries Unit | Primary Care Facilities | More Care At Home | Summary |
|-------------------------------|------------------|------------------------|-------|---------------------|-------------------------|-------------------|---|
| Anglesey | Hospitals | | | | Community | | |
| Cefni | ✓ | ✓ | – | – | | ✓✓ | More community services for older people with mental health needs, reduction in beds from 25 to 18 |
| Penrhos Stanley | ✓ | ✓ | ✓ | ✓ | | ✓✓ | No change to hospital services Enhanced care at home already in place |
| Gwynedd | Hospitals | | | | Community | | |
| Eryri | ✓ | ✓ | ✗ | – | | ✓✓ | Close X-ray (currently 3 sessions a week) |
| Alltwn | ✓ | ✓ | ✓ | ✓ | | ✓✓ | Will admit Blaenau Ffestiniog patients |
| Bryn Beryl | ✓ | ✓ | ✗ | ✓ | | ✓✓ | More community services for older people with mental health needs Permanent closure of 6 beds Change in Minor Injuries Unit hours |
| Ffestiniog Memorial | ✗ | ✓ | ✗ | ✗ | ✓✓ | ✓✓ | Redevelop hospital premises to provide better community services and expand Primary Care |
| Dolgellau and Barmouth | ✓ | ✓ | ✓ | ✓ | | ✓✓ | More community services for older people with mental health needs Permanent closure of 9 beds for older peoples' mental health needs |
| Tywyn | ✓ | ✓ | ✗ | ✓ | ✓✓ | ✓✓ | A business case to develop Tywyn has been submitted to Welsh Government |
| Conwy | Hospitals | | | | Community | | |
| Llandudno | ✓ | ✓ | ✓ | ✓ | | ✓✓ | Continue current development plans |
| Colwyn Bay | ✓ | ✓ | ✓ | ✗ | | ✓✓ | Close Minor Injuries Unit |

Symbol



What this means

New development or significant improvement
 Service remains the same
 Some reduction in service
 Service will close
 Indicates no service provided now

| | Beds | Out-Patients & Daycare | X-Ray | Minor Injuries Unit | Primary Care Facilities | More Care At Home | Summary |
|--------------------------------|------------------|------------------------|-------|---------------------|-------------------------|-------------------|---|
| Denbighshire | Hospitals | | | | Community | | |
| Prestatyn | ✗ | ✗ | – | – | | | Services at Prestatyn, the Royal Alexandra and Glan Traeth to move into new integrated facility. Existing buildings will close Enhanced care at home is in place |
| Royal Alexandra | – | ✗ | ✗ | – | | | |
| Glan Traeth | ✗ | ✗ | – | – | | | |
| New Integrated Facility | ✓✓ | ✓ | ✓ | – | | ✓✓ | |
| Denbigh | ✓ | ✓ | ✓ | ✓ | | ✓✓ | No change |
| Ruthin | ✓ | ✓ | ✗ | ✗ | | ✓✓ | Close Minor Injuries Unit and X-ray (currently 3 sessions a week) |
| Llangollen | ✗ | ✗ | – | ✗ | ✓✓ | ✓✓ | Develop new primary care centre. Close Llangollen hospital |
| Wrexham | Hospitals | | | | Community | | |
| Chirk | ✓ | ✓ | – | ✗ | | ✓✓ | Close Minor Injuries Unit May admit Llangollen patients |
| Flintshire | Hospitals | | | | Community | | |
| Mold | ✓ | ✓ | ✗ | ✗ | | ✓✓ | Close Minor Injuries Unit and X-ray (currently 10 sessions a week) |
| Deeside | ✓ | ✓ | ✓ | ✓✓ | | | Open Minor Injuries Unit |
| Flint | ✗ | ✗ | – | ✗ | ✓✓ | ✓✓ | Develop new primary care centre Close Flint Hospital |
| Holywell | ✓ | ✓ | ✓ | ✓ | | ✓✓ | Will admit Flint patients |

Symbol



What this means

- New development or significant improvement
- Service remains the same
- Some reduction in service
- Service will close
- Indicates no service provided now

Appendix 2: Glossary of terms

What some of the words and phrases in this booklet mean

| | |
|--|--|
| Acute hospital | A hospital that provides care for a patient for a short but severe period of illness or following an injury or surgery; in North Wales this means Ysbyty Gwynedd, Glan Clwyd Hospital or Wrexham Maelor Hospital |
| Bed occupancy | How much healthcare beds are used over any particular period |
| Community healthcare | Care provided by the NHS, often working with social care, to assist people living at home |
| Critical care | Specialised care for patients whose condition may be life-threatening |
| Daycase | A daycase is surgery where a patient comes into the hospital, has an operation and is discharged home the same day |
| Dementia | Loss of mental ability severe enough to interfere with normal activities of daily living. It is a group of symptoms caused by the gradual death of brain cells |
| Diagnostics | Procedures used to identify a disease or problem to give a 'diagnosis' |
| Emergency Department (or A&E) | A department at the acute hospital which deals with accidents and health emergencies |
| Equality Impact Assessment | A method of identifying whether a proposal has an impact on particular groups in the population |
| Hospital hubs | A hospital hub is a centre of services for a number of communities |

| | |
|-------------------------------------|---|
| Integrated care | Care which is provided by the NHS, social services, voluntary groups and independent services working together to meet the needs of patients |
| Pathways | A patient's journey to the care that is needed, often involving guidelines and processes to make clear the treatment and care that can expect to be received |
| Primary care | Services provided by family doctors, dentists, pharmacists, optometrists (for eye care) together with community nurses and health visitors |
| Primary care resource centre | A centre that brings together primary and community services onto a single site to provide more convenient access for patients |
| Renal | Relating to the kidneys |
| Telehealth | Provision of health services at a distance using a range of technologies. Telehealth can support diagnosis and management of long term conditions such as diabetes or high blood pressure |
| Telemedicine | Use of medical information transferred from one place to another using electronic communication methods |
| The Triple Aim | The Triple Aim is a way of defining three important elements of healthcare so that the system can be improved. This was designed by the Institute for Healthcare Improvement, an organisation which works to improve healthcare in the United States of America |

Proposed Clinical Model for Vascular Services – BCUHB

The objective of the Vascular Implementation Task & Finish Group is to implement the Health Board decision to form a modern Vascular Network for North Wales. It is the responsibility of the group to do this in a way which is safe and effective for the population of North Wales, to ensure that patients requiring arterial surgical intervention receive highest quality care, with surgical outcomes in line with National Standards.

A) UNIT LOCATION

Having accepted guidance from the Royal College of Surgeons and the Vascular Society of Great Britain and Ireland, Vascular Society's *Provision of Vascular Services* 2015 and following public consultation, the Health Board made the decision in January 2013 to invest in, and create a vascular network to serve the public of North Wales. The "hub" or single operating site for all arterial surgery procedures being centred at Ysbyty Glan Clwyd, Bodelwyddan. This decision has been reinforced by a report from the Royal College of Surgeons, which was critical of the slow rate of change, although since the decision was made a North Wales emergency rota has been created to which all surgeons currently contribute. This decision was reaffirmed at the Health Board meeting on 20th October 2016. However, it is recognised that Diabetic foot services are currently largely provided for all of North Wales from Ysbyty Gwynedd, although such services are outside the specification for an arterial centre, however it is crucial that the centre supports and maintains this service.

Research shows that the chances of survival and improved quality of life after treatment of arterial diseases are greatest when patients are treated by a highly trained specialist team working in one centre to which many patients are referred, rather than hospitals carrying out only a few operations each year. It is accepted that the benefits of transfer to a specialised unit outweigh the downsides of the transfer, in the majority of patients.

The greater volume of patients that are cared for at a particular hospital, the more likely it is that treatment will be successful. Seeing more patients allows doctors and other staff to hone their skills and maintain them at the highest level, ensuring that patients get the most effective care.

Units such as these are being created across the UK and provide a hub for arterial surgery. Creation of a centralised unit for the management of aortic aneurysms is a prerequisite in order to receive and care for patients referred from the Abdominal Aortic Aneurysm screening service.

A hub for arterial services, built on the considerable knowledge, skills and practices across North Wales, would safeguard the retention of vascular services.

Outpatient consultations, investigations, diagnostic procedures, renal dialysis access surgery, varicose vein treatments and day case surgeries will continue to be delivered at all three main DGH's in North Wales, which would ensure sufficient vascular presence at the respective hospitals supporting other specialties such as Emergency Department, Trauma & Orthopaedics, General Surgery, Urology, Obstetrics & Gynaecology and Renal Therapy. The North Wales Vascular Network will ensure the presence, when needed, of a Consultant Vascular Surgeon at each of the three DGH Sites.

In the absence of a local robust service many local elective and emergency secondary care services would be at risk and dependent on out of area support, within North West England or South Wales.

The proposed structure of the vascular network for North Wales recognises and incorporates both external guidance related to the provision of vascular services and aspects of the current service that already offer a high standard of care unique to North Wales.

B) AIMS AND OBJECTIVES OF SERVICE

Vascular services provide diagnostics and treatment for patients with vascular disease. The principal specialities involved are Vascular Surgery and Interventional Vascular Radiology.

The overarching aim of elective and 24/7 emergency vascular services is to provide evidence-based models of care that improve patient diagnosis and treatment and ultimately improve mortality and morbidity from vascular disease.

The service will deliver this aim by:-

- Improving the patient experience, providing equality of access to the full range of vascular diagnostics and interventions and ensuring that patients are receiving a high quality of service, with access to the most modern techniques and skilled staff.
- Developing and sustaining the resilience of vascular services and the workforce providing those services.
- Improving mortality and morbidity rates for people with vascular disease and improving survival rates following hospitalisation.
- Improving complication rates following a vascular admission (short and long term).
- Reducing mortality rates by preventing death from ruptured abdominal aortic aneurysm, stroke, lower limb ischaemia and tissue loss and vascular trauma.

- Providing early and specialist intervention and treatment to achieve network reductions in the incidence of stroke due to carotid artery disease and lower limb amputations related to peripheral arterial disease and diabetes.
- Supporting other services in the efficient management of vascular complications and emergencies.
- Further enhance joint working with the diabetes and podiatry services across North Wales to optimise foot care, and prevent major amputation.

Although care for patients with varicose veins is often provided by vascular teams this service model excludes these procedures. These procedures will continue to be undertaken on a Day Case basis at each of the three DGH sites.

C) SERVICE DESCRIPTION/CARE PATHWAY

This service comprises the following elements:-

- Identification and assessment of vascular disease (including the input of the vascular laboratory and radiology based diagnostic imaging).
- Outpatient management of patients with peripheral arterial disease.
- Day case surgery including Renal Access
- Inpatient spells, emergency and elective activity.

Owing to known vacancies within Interventional Radiology and the national shortage of trained Interventional Radiologists, the network will work towards providing 24/7 interventional radiology cover for the vascular network. The vascular on call rota for vascular emergencies at the arterial centre will be formally arranged by vascular surgeons to ensure comprehensive provision for opinions, procedures and post-operative care. In practice, this requires that there is a sufficient number of Consultant vascular surgeons and team members to ensure safe out of hours emergency cover. All patients presenting as acute vascular emergencies will be managed at the Glan Clwyd site unless senior vascular surgeon/clinician opinion deems the patient unfit/unsuitable to be transferred. Whilst the diabetic foot service at Ysbyty Gwynedd will not admit acutely ill patients, it will receive stable patients either by referral or from the arterial centre post arterial surgery.

Each surgeon will need to have an appropriate arterial operative workload (e.g. in the region of 10 abdominal aortic aneurysm procedures per surgeon per year and commensurate numbers of lower limb and carotid procedures), which is dependent on the number of surgeons and the population of the catchment area.

Day case and diagnostic and therapeutic procedures will be provided locally. All outpatient consultations will be delivered at each site, and where appropriate, Community Hospitals.

Within the network, peripheral vascular interventions considered to be low risk will be undertaken locally, to utilise local skills and local interventional vascular radiology capacity. The scope of this local provision must be clearly defined and the activity will be included in the network audit arrangements.

With regard to services for patients with vascular conditions arising from venous insufficiency and diabetes, local and integrated network models of care will be developed and enhanced.

There will be a formalised description of where inpatient, day case and outpatient services are provided in the network.

Local protocols will be agreed to provide high quality specialist care at all hospitals in the network. Clear written arrangements will exist for cover of inpatients and the transfer of emergencies out of hours. Formal arrangements will also exist to enable vascular-specialists based at all three acute hospitals in North Wales to support outpatient clinics, ward work and surgery on appropriate sites

The network will nominate a lead vascular clinician and a lead manager with responsibility for ensuring and maintaining implementation of the standards and locally agreed policies/protocols.

All patients with vascular disease or vascular complications must have equitable care across the network.

The vascular service will continue to provide a diagnostic and treatment service through a multidisciplinary team model.

All key activity will be audited and reviewed in a process that is proactive and reactive to affect change if needed. In-keeping with guidelines and to facilitate best patient care during this period of reconfiguration, there will be real time monitoring as well as review of activity, including workload and workforce issues, waiting times for elective and emergency procedures and outcome data is essential. Monitoring is essential to identify areas of concern but also highlight achievements. This process must be achieved through open, inclusive and transparent communications and data collection.

D) SPECIALIST VASCULAR TEAM

Patients with vascular disorders are cared for by specialist vascular teams. These teams include vascular surgeons, consultant anaesthetists, interventional vascular

radiologists, radiographers, vascular scientists, nurses, podiatrists, physiotherapists, occupational therapists and rehabilitation specialists.

A weekly North Wales Vascular Multidisciplinary Team will be established whereby all patients requiring major surgery will be discussed. Clinicians providing emergency care will be part of the vascular services multi-disciplinary team and be delivering both in and out of hours care. Care of patients will be facilitated through continuous dialogue and regular multi-disciplinary team meetings which will occur weekly. The membership requirements for the multi-disciplinary team meeting are well established. Documentation required around MDT will include statements on minimum levels of attendance for individuals and quoracy. It is expected that all clinicians will attend the multi-disciplinary team meeting on a regular basis.

Discussion at the multi-disciplinary team meetings will precede elective vascular procedures being undertaken, urgent and emergency interventions will be discussed where possible and appropriate. Interventional procedures will also be reviewed at the multi-disciplinary team meeting.

The specialist vascular team will also support the care of patients under the management of other specialties.

E) INFRASTRUCTURE/FACILITIES

Across the vascular network there will be access to the following:

- **Outpatient Clinics** – will include access to nurses experienced in wound care. Doppler ABPI assessment should be available at the clinic.
- **Vascular Laboratory** – the vascular laboratory service will be available for the diagnosis and assessment of arterial and venous disease. (Service availability does not necessarily have to be within the confines of a vascular laboratory).
- **Vascular Wards** – patients with vascular disease will have access to dedicated vascular beds. There will be sufficient dedicated beds to accommodate the routine elective work and emergency admissions at Glan Clwyd. Beds will be staffed by an appropriate skill mix of nurses who have been trained in the care of vascular patients. Doppler investigation will be available on the ward.
- **Interventional Radiology Suites** with access to nursing staff that have been trained in vascular procedures.

- **Emergency Operating Theatres** – At Glan Clwyd the Hybrid Theatre will be available during hours (08:00 to 18:00) for both emergency and elective patients.
- During the out of hours period the 24 hour NCEPOD emergency theatre will be accessible to the vascular service, as well as accommodating other surgical emergencies.
- **Elective Operating theatres** – a vascular hybrid operating theatre with experienced vascular theatre staff will be available for elective activity at Ysbyty Glan Clwyd. This theatre will incorporate the full range of facilities for endovascular aneurysm repair in accordance with MHRA guidance on delivering an Endovascular Abdominal Aneurysm Repair Service.
- **Anaesthesia** – elective vascular services will have dedicated vascular anaesthetic input from anaesthetists experienced in caring for vascular patients
- **Intensive Treatment Unit (ITU) and High Dependency Unit (HDU)** – Facilities with full renal support will be available on-site at Ysbyty Glan Clwyd to support the vascular service. Bookable HDU/ITU with sufficient beds will be available for elective patients.
- **Limb Fitting Service** – the vascular service must ensure its patients have access to a local limb fitting service, which meets the standards set by The British Society of Rehabilitation Medicine.

Care Pathways

The following care pathways will be documented and held by the vascular network:

- Management of acute rupture of AAA
- Investigation and management of asymptomatic AAA
- Investigation and management of carotid disease (link to stroke care pathway)
- Management of acute limb ischaemia
- Investigation and management of chronic vascular insufficiency
- Management of vascular access for renal patients.
- Management of diabetic foot disease
- Management of vascular injury (including complications of angiography)
- Abdominal Aortic Aneurysm Screening
- Peripheral Arterial Disease Pathways including suspected disease, secondary care investigations, surgical revascularisation and shared care
- Venous thromboembolism pathways VTE risk assessment, prophylaxis, diagnosis and management

F) HIGHLY SPECIALISED INTERVENTIONS AND RARE CONDITIONS

Some interventions/treatment are complex, rare or require other specialist input such as cardiothoracic surgeons e.g. thoraco-abdominal aneurysms/dissections. These procedures will not form part of the centralised service as they will only be carried out in Regional Tertiary Centres where the Health Board has current contractual arrangements (e.g. Liverpool). A named clinician within the Vascular Service will be identified and will collate information relating to these patients.

G) POPULATION COVERED

Patients will experience varied contact with the service depending on the nature and severity of their condition. Patients will fall outside the scope of this service model when discharged from the care of the specialist vascular team.

Emergency admissions ambulance coverage will reflect the network footprint.

Bypass arrangements will operate so that suspected or definite arterial emergencies are taken directly to the appropriate centre, within the scope of the WAST Protocol. Arrangements for inter-hospital patient transfers across North Wales and to England will be clear and based on the model already in place for the North Wales vascular network

H) ACCEPTANCE AND EXCLUSION CRITERIA.

The service will accept all patients who have been referred via their GP or other health care professional, to a vascular specialist within primary or secondary care, or who have presented as an emergency in secondary care and are identified as having a vascular emergency. Referrals will also be received from the WAAASP Screening Programme.

Vascular services for children are undertaken at the Tertiary Paediatric Regional Centre, Liverpool.

I) INTERDEPENDENCIES WITH OTHER SERVICES

Vascular services link to a range of other clinical specialties and services:

Co-located services

- Intensive care
- Interventional vascular radiology
- Emergency Department (ED)

Interdependent services

- Stroke management
- Limb salvage
- Diabetes specialist hospital services and diabetic community services
- Renal inpatient units
- General Surgery
- Obstetrics and gynaecology
- Urology
- Orthopaedics (elective and emergency)
- Interventional cardiology
- Cardiac surgery - Liverpool
- Thoracic surgery - Liverpool
- Major trauma centre (Stoke)

Related services

- Rehabilitation services
- Limb fitting service

Relevant networks and screening programmes include:-

- Cardiac/Stroke networks
- Renal networks
- Critical Care networks
- Trauma networks
- WAAASP (screening programme)

J) CLINICAL PATHWAYS**1. OUTPATIENT SERVICES**

In order to deliver services as close as possible to the patient, Vascular Outpatient Services will continue to be delivered from the existing three sites and where applicable, Community Hospitals

2. DIAGNOSTIC SERVICES

Diagnostic Services such as Duplex scanning, Angiography and Angioplasty which support both inpatient and outpatient services will continue to be provided from the three main hospital sites based on appropriate assessment and local arrangements.

3. DAY CASE SURGERY

Vascular Day Case surgery e.g. AV Fistulae for Renal Access and Varicose Vein procedures will continue to be delivered at the three main hospital sites.

4. ARTERIAL SURGERY

All emergency and elective arterial interventions, will be provided at Ysbyty Glan Clwyd utilising the new Hybrid Theatre development.

The Medicines and Healthcare products Regulatory Agency (MHRA) - Joint Working Group on delivering an Endovascular Aneurysm Repair (EVAR) Service advises that a Hybrid Theatre is a prerequisite requirement in order to deliver a high quality service for the endovascular management of abdominal aortic aneurysm.

- a) This specialist theatre will be equipped with high quality imaging equipment which is crucial for the accurate positioning and deployment of stent grafts to avoid covering important branch vessels to organs such as the kidneys. Such equipment allows the use of alternative contrast agents (e.g. CO2) to minimise risk to patients.

The specification of this theatre will provide a safe, appropriate environment for the induction of anaesthesia, surgical and endovascular procedures and post-operative recovery.

Both the above elements need to be incorporated into any facility undertaking EVAR

5. Diabetic foot services

Given the well-established and widely recognised Diabetic Foot service at Ysbyty Gwynedd, there is a clear need to protect and consolidate this service and its outcomes. It is expected that this service will continue and will admit stable patients either by referral or from the arterial centre. The in-patient base for this service may also assist those patients having non-arterial surgery (e.g. fistula formation) who would have difficulty being treated as a day case and wish to avoid travelling to the arterial centre.

The lower limb service at Ysbyty Gwynedd already admits patients from across North Wales, managing the care for patients with diabetic foot disease and difficult to manage lower limb tissue loss and limb ischaemia. In the future these patients will continue to be managed at Ysbyty Gwynedd although lower limb surgical arterial procedures will be performed at the hub. The service will provide a network of outreach services covering the whole of North Wales.

These arrangements will allow the vascular service to grow and enhance the already globally recognised provision we have in North Wales.

a) Inpatient Beds– Ysbyty Gwynedd

Analysis of the caseload (see Section K below) by patient episode indicates a bed requirement of 15 beds. However this is based on 2015/16 coded data and does not take into account the increase in demand from East and Central. The plans to implement a community hub and spoke model with community beds should at least compensate for this and may allow a reduction in the number of beds.

b) Community Hospitals (Step Down Beds)

Access to Community Hospitals beds (including Llandudno General Hospital) across North Wales to support the Vascular Outreach Service. These beds would be utilised by the Limb Salvage Service by patients who require specialist input but who are not at risk of requiring arterial intervention. This would facilitate the management of these non-acute patients closer to their home.

Community Hospital staff would be supported by Vascular Specialist Nurses (Outreach) together with Consultant Vascular Surgeon visits on 1 or 2 times per month which would coincide with a community outpatient clinics.

c) Outreach Service

Expansion of Vascular Outreach Service by circa 3 nurses would allow for the care of patients at home. This service would allow for the up skilling of community provision. Outreach staff would have access to high definition telemedicine to senior medical staff at YG.

Delivery of non-acute vascular services in the community would contribute to the easing of pressures on acute beds within the specialist unit setting.

6. VASCULAR SUPPORT TO OTHER SPECIALTIES – ALL SITES

Periodically there is a requirement for vascular input/assistance during procedures undertaken by non-vascular specialties. The Vascular Service will wherever possible ensure a vascular presence on all sites throughout the working week. On the occasions that there is no vascular surgeon available on site then the Duty Vascular Surgeon for that day will be required to travel to the relevant Hospital Site

This will ensure cover to interdependent specialties including Trauma and cover to Theatre in the event of vascular “accidents”

For elective surgical cases where it is deemed that there is a potential high risk confirm the presence of a consultant vascular surgeon at the DGH on the planned day of surgery.

K) NORTH WALES VASCULAR CASELOAD

| | YSBYTY GLAN CLWYD | | | YSBYTY GWYNEDD | | |
|--|----------------------|------------------|------------------------|----------------------|------------------|------------------------|
| Procedure | Number of Procedures | Episode Bed Days | Bed Requirement at 85% | Number of Procedures | Episode Bed Days | Bed Requirement at 85% |
| AAA Open – Emergency & Elective | 32 | 397 | 1.3 | | | |
| EVAR | 41 | 193 | 0.6 | | | |
| Carotid | 42 | 72 | 0.2 | | | |
| Peripheral Arterial Procedures | 132 | 943 | 2.1 | 15 | 352 | |
| Amputation (excluding Foot & Toe) | 47 | 1096 | 3.5 | | | |
| Inpatient IR | 122 | 162 | 0.5 | 34 | 429 | |
| Inpatient activity with no theatre procedure | | 2765 | 8.9 | | 3430 | |
| TOTAL BED DAYS | | YGC 5628 | | | YG 4211 | |
| BED REQUIREMENT | | | YGC 18 | | YG 13.5 | |

The development of the vascular unit at Ysbyty Glan Clwyd will place increased demand on the existing bed stock at that site. However the bed allocation at Ysbyty Glan Clwyd and Ysbyty Gwynedd is currently under review and recommendations as to the number and distribution of beds across North Wales, both in secondary care and in the community to accommodate this increased demand will follow.

CRITICAL CARE BEDS

Advice received from the North Wales Critical Care Network is that Ysbyty Glan Clwyd will require one additional critical care bed to be able to care for an additional 69 critical care patients utilising around 291 bed days. This has now been funded.

L) MEDICAL STAFFING

The Clinical Director of the Vascular Network will have responsibility for matters related to vascular staffing. In support of the proposed clinical model the following will need to be considered.

1. A minimum of 6 consultant vascular surgeons.
The exact model for the consultant working week needs to be finalised by the surgeons. Best advice and early preference indicates we will have a surgeon of the week, Monday to Friday 8-6pm who will manage emergencies, referrals, inpatients and the unit with a rota for a second surgeon working a 24-hour shift who will operate in the Hybrid theatre. It is expected that these two surgeons will work as a team. The rest of the surgeons time will be spent covering non-arterial spoke work, outpatient work, servicing the diabetic foot service at Ysbyty Gwynedd, supporting professional activities, teaching and taking annual leave.
2. Junior doctors, the F1 and F2 doctors will come from the existing medical cohort at Ysbyty Glan Clwyd, the Health Board has funded a further vascular fellow and up to three middle grade vascular doctors to support the vascular unit.
3. At present there are up to four surgical registrars in North Wales receiving vascular training as part of their general surgical training, these doctors will need, in consultation with the deanery, to have all or part of their time moved to the arterial centre in order to receive vascular experience / training.
4. At present there are no numbered vascular training posts in North Wales, it is a clear ambition of the service to apply for such a placement once more established.
5. Vascular nursing staff should be adequate to support the proposed bed number and also to allow for sufficient flexibility to cover peaks in activity across both sites.
6. The alliance between vascular services and **health therapies** needs to be further supported and developed to meet and maintain standards.
7. Suitable **clerical and administrative support** is required, particularly to support consultants and their teams, waiting lists and patient administration systems.

M) TRANSPORT SERVICES

A robust Ambulance transport service both Paramedic and Patient Transport Service is essential for the safe provision of vascular services across North Wales. This will continue to be planned and provided in consultation with Welsh Ambulance Service Trust, one of the benefits of the centre will be that the large East to West and west to East journeys will no longer be undertaken.

N) THEATRE DESIGN

Theatre L at YGC has the physical capacity to accommodate a Hybrid Theatre together with the required supporting accommodation. The detail for this planning will fall to the Capital & Estates Team. This work is now complete and installation of the theatre has commenced with an expected completion date of April 2019.

O) GOVERNANCE, NETWORKING & TRAINING

The ongoing requirements for governance, ensuring the quality of care, adherence to standards, support and organization of training and networking across North Wales, Wales and England should become the primary responsibility of the Director of the North Wales Vascular Network.

P) OTHER ITEMS FOR CONSIDERATION IN THE CLINICAL MODEL

The promotion of a learning environment should be a key objective of the North Wales vascular service. This will include both maintaining basic skills and promoting the acquisition of advanced practice skill by some staff. There should be a medical and nursing lead to promote and co-ordinate training.

Engagement with research and knowledge of the evidence base should underpin the provision of high quality care. Involvement of staff with in-house and multicentre projects would be expected and there should be a medical and nursing lead to promote and co-ordinate research.

Q). TRANSITION

It is important that a robust and safe overall plan for the transition from the current makeup of vascular services to the proposed service model is created and agreed at some pace, whilst maintaining the quality of care and the safety of patients and staff.

References

1. Provision of Services for Patients with Vascular Disease 2015 – Vascular Society for Great Britain & Ireland
2. Royal College of Surgeons Invited Review of Vascular Services in North Wales Redacted report – November 2015



Vascular Surgery

GIRFT Programme National Specialty Report

by **Professor Michael Horrocks**
GIRFT Clinical Lead for Vascular Surgery

March 2018



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Foreword from Professor Tim Briggs, GIRFT Programme Chair

When I began my review of orthopaedic surgery more than five years ago, I was driven by a desire to improve the specialty I have devoted my career to, fix many of the issues I and my colleagues regularly face, and ensure better care and outcomes for the patients who put their trust in our hands.

What I found when visiting hospitals and more than 2,000 surgeons, clinicians, managers and support teams was that everyone shared my desire to improve practices, techniques and processes for the benefit of our patients. They recognised and supported the importance of having a better insight and understanding of how their specialty was performing and the kind of impact unwarranted variation was having on their services.

We examined the data on orthopaedic surgery, discussed the challenges they faced, debated the possible solutions, and where there was good practice, we held this up as an exemplar of how orthopaedic surgery in England could be improved. All this information and insight was captured in my first report, which coined the term 'Getting It Right First Time', giving this programme both its name and its mission statement.

The programme has now expanded to include 35 specialties – surgical and medical – and each review results in a report that includes a range of evidence-based recommendations that our clinical leads, all experts in their field, feel would truly make a difference to patient care and efficiency. In tackling the variation in the way services are provided and delivered, we are able to identify recommendations that can help improve the quality of care for patients and, in doing so, help make the NHS more financially sustainable.

Throughout, we have found a real willingness to engage with our programme and this review into vascular surgery has been no exception. I am delighted to present and recommend this report by Professor Michael Horrocks.

His review has helped to build a more detailed picture of vascular procedures, and how they are delivered, than ever before. His 17 recommendations offer opportunities to transform patient care and outcomes by reducing the unwarranted differences between hospitals treating vascular conditions. His report demonstrates how tangible efficiencies can be created by improving the provision of vascular surgery to enable more patients to receive urgent vascular surgery sooner, in turn reducing the likelihood of life-threatening strokes, transient ischaemic attacks, aortic aneurysm ruptures and arterial blockages.

This report brings real insight into what works and what isn't working and will enable clinicians and managers to consider how best to configure their vascular services as part of a 'hub and spoke' model for the benefit of their patients.

GIRFT and the other Carter programmes are already demonstrating that, by transforming provider services and investing to save, there are huge gains to be made for patient care and NHS finances. My hope is that GIRFT, through initiatives such as this report, will provide the impetus for clinicians, managers and programmes such as ours, to work together, shoulder to shoulder, to create solutions and improvements that for too long have seemed impossible to deliver.



Professor Tim Briggs is Consultant Orthopaedic Surgeon at the Royal National Orthopaedic Hospital (RNOH), where he is also Director of Strategy and External Affairs. He led the first review of orthopaedic surgery which became the pilot for the GIRFT programme, of which he is now Chair. Prof Briggs is also National Director for Clinical Quality and Efficiency.

Professor Tim Briggs

Foreword from Professor Michael Horrocks, GIRFT Clinical Lead for Vascular Surgery

Vascular surgeons and interventional radiologists routinely undertake complex and high-risk procedures that don't just save lives, but transform them. We protect people from strokes, can help restore mobility and relieve agonising pain. Over the past 20 years, our capacity to do all of this has increased, with the development of increasingly complex open and endovascular procedures that enable us to treat more patients with life-threatening conditions safely.

Yet the Getting It Right First Time (GIRFT) process – a combination of data analysis and in-depth face-to-face discussions during hospital visits with clinicians and managers – has also shown, in unambiguous terms, how much more we could be doing. It has demonstrated that, in many areas, patients have to wait too long for the vital surgery we can provide.

Wait times for critical surgery to prevent rupture of abdominal aortic aneurysms can be as long as 21 weeks. While some vascular units are able to undertake vital surgery to improve blood flow to the brain within five days of a patient experiencing a mini-stroke – and thus immediately reduce the risk of a major one – many other providers fail to meet the NICE guideline of delivering surgery within two weeks of diagnosis. Furthermore, there appear to be opportunities to reduce the number of lower limb amputations, by ensuring the risk is identified sooner so revascularisation procedures can be provided.

Through the GIRFT visits, we now have a greater understanding of what causes these delays; inevitably, there is no single or simple reason. Considered as a whole, however, the delays indicate a surgical service that is not configured to meet the clinical need. Like other disciplines, vascular surgery has been split into emergency and elective surgery. In my view, this divide is inappropriate, for a field of practice where surgery is almost always urgent.

Therefore, the pivotal recommendation this report makes is that arterial surgery should be reconfigured so that all patients

can be treated on an urgent basis – by establishing hub and spoke networks, where the hubs have the capacity and flexibility to offer a seven-day service. This model is already supported by the Vascular Society and NHS England; where it has been adopted and embedded well, we can see major improvements in wait times and other patient outcomes. Where well-embedded, this network model typically leads to improved perioperative care, by facilitating closer working with other medical specialties who are also treating these often very frail patients. That in turn could also help reduce length of stay and readmissions. These benefits underline the importance of ensuring that all vascular networks are established as required by the existing national service specification.

The potential to deliver substantial improvement in these core outcomes is why I believe the crucial next step for vascular surgery is to ensure that this network model becomes the norm, with all providers part of a network and work clearly and consistently distributed between the hubs and spokes.

The GIRFT programme has brought into sharp focus the need to improve the quality of data we collect about vascular patients and surgical activity, and the need to record data covering a greater proportion of vascular procedures. We know this because the number of vascular procedures recorded each year in the National Vascular Registry (NVR) is different from the number recorded in Hospital Episode Statistics (HES). Whilst the available data has proved vital to the GIRFT programme and to producing this report, increasing the quality of the data would enable clearer insight and thus potentially lead to further opportunities for improvement being identified. The report makes several practical recommendations to address data quality.

Being the clinical lead for the vascular surgery stream of the GIRFT programme has been a fascinating and rewarding experience. It has brought me into contact with outstanding surgeons, committed clinical teams and far-sighted hospital managers; I hope this report can help equip them to deliver their vital work to more patients.



Michael was Professor of Surgery in Bath before his recent retirement. He has been Secretary General of the European Society of Vascular Surgery and President of the Vascular Society of Great Britain and Ireland, President of the Association of Surgeons of Great Britain and Ireland (ASGBI) and a Council member of the Royal College of Surgeons, chairing Education and Professional Standards and elected senior vice-president.

Professor Michael Horrocks

About this report

This report sets out 17 recommendations to improve the way vascular surgery – surgery to repair and restore blood supply to organs and areas of the body – is delivered in the NHS in England. The recommendations focus primarily on the way vascular surgery is organised and delivered, with the central goal of enabling patients to receive urgent surgery sooner. Taken together, they could not only deliver better surgical outcomes for seriously ill patients but also reduce length of stay, cut readmissions and make better use of surgical resources.

The report also recommends steps to improve the quality of data gathered around vascular surgery, as a precursor to further long-term change, and identifies opportunities to deliver substantial cost savings on procurement of devices and consumables.

The report and recommendations are the output of work conducted under the NHS Improvement programme, Getting It Right First Time (GIRFT). Begun in 2012, the GIRFT programme uses existing NHS and wider healthcare data in a new and innovative way. Data from multiple NHS sources is consolidated and analysed to provide a detailed national picture of a particular area of practice. This process highlights variations in care decisions, patient outcomes, costs and other factors across the NHS. The data is then put to immediate use by experienced clinicians who visit individual hospital trusts to discuss the data, focussing on areas where that trust's approach appears to differ from the national norm.

This is an opportunity for both parties to learn; the individual trust can understand where its performance appears to be below average, and draw on clinical expertise to identify ways to address that, while the visiting clinicians can gain an insight into emerging best practices, to feed into the national picture and make recommendations for service-wide improvement.

The recommendations in this report are made following visits to all 70 of the NHS trusts in England that conduct vascular surgery. They have been reviewed and considered by relevant stakeholders before publication, securing strong support for both the overall direction and the specific detail of implementation. The aim is that they should serve as the catalyst for further discussion and action, at national, trust and individual surgeon level.



The Vascular Society

The Vascular Society is the largest professional organisation representing Consultant Vascular surgeons and trainees in Great Britain and Ireland. We welcome this report from the Getting It Right First Time initiative into vascular services. We are a relatively new surgical specialty in a period of transition and change. Our goal is to deliver the best possible care to our patients with vascular disease and this is a challenge. The society and our members have worked with the GIRFT team to complete this initial analysis of the vascular services we currently deliver. This identifies the strengths and weaknesses of our services and highlights the improvements we can make. This provides us with the benchmark from where we can plan further change. Working with the GIRFT team we believe we can improve the quality of care patients receive with better outcomes delivered at the right time. There are also potential cost savings highlighted in this report from reduced complications, hospital stays and re-admissions. There is therefore much to be gained from this report and implementing its recommendations.

Mr Kevin Varty MD FRCS BM BCh
President - The Vascular Society

EXECUTIVE SUMMARY

Vascular surgery covers a range of surgical procedures undertaken on veins and the lymphatic system – but the most important part of the vascular surgeon's work is to reconstruct, unblock or bypass arteries that are blocked by atherosclerosis. In undertaking these precision procedures, vascular surgeons restore blood flow to organs of the body helping to reduce sudden death, preventing strokes, restoring movement and reducing the risk of amputation. A further central role for vascular surgery is to address aortic aneurysms, which, when these rupture, can rapidly lead to death.

Advances in techniques and technology over the last three decades have meant it is possible to carry out a greater number of these life-saving procedures, even on extremely frail patients. Seventy NHS trusts across England conduct vascular surgery, with some units managing hundreds of procedures each year. The Getting It Right First Time (GIRFT) programme has helped build a more detailed picture of those procedures, the patients who undergo them and the outcomes than ever before.

The GIRFT programme

Funded by the Department of Health and jointly overseen by NHS Improvement and the Royal National Orthopaedic Hospital NHS Trust, GIRFT seeks to identify variation within NHS care and then learn from it. GIRFT is one of several on-going work streams designed to improve operational efficiency in NHS hospitals. In particular, it is part of the response to Lord Carter's review of productivity, and is providing vital input to the Model Hospital project. It is also closely aligned with programmes such as NHS RightCare, acute care collaborations (ACCs) and sustainability and transformation partnerships (STPs) – all of which seek to improve standards while delivering efficiencies.

Under the GIRFT programme, data from many NHS sources is consolidated and analysed to provide a detailed national picture of a particular area of practice. This process highlights variations in care decisions, patient outcomes, costs and other factors across the NHS. The data is reviewed by experienced clinicians, recognised as experts in their field, who visit individual hospital trusts to discuss the data with senior management and the clinical teams involved in the specialty under review. Discussion focuses on areas where the trust's approach appears to differ from the national norm.

The analysis and visits lead not only to targeted action within individual trusts, but also a national report, including recommendations, backed by an implementation programme to drive change and address unwarranted variation.

Long waits for urgent care

The GIRFT team has visited all 70 trusts that offer vascular surgery in England and identified several key areas of variation. Arguably the most significant area of these was around wait times for surgery, where data shows that many patients experience long waits for procedures that are clinically urgent.

- Minor strokes or transient ischaemic attacks (TIAs) are recognised as a key warning that a patient is at risk of a major stroke. To prevent this, a carotid endarterectomy (CEA) – which involves improving blood flow through the carotid arteries to the brain – is often recommended. NICE guidance says that CEA should take place within 14 days of diagnosis. At least 18 providers failed to meet this standard and in four areas, the average wait for CEA was 28 days or more. By contrast, two providers were able to go from diagnosis to surgery within five days – thus making it far more likely that a major stroke can be avoided.
- Average wait times for elective abdominal aortic aneurysm (AAA) repair currently range from 35 days (5 weeks) to 145 days (21 weeks). This surgery is designed to avoid the AAA rupturing; the longer the delay, the greater the risk of rupture.
- Blocked arteries in the lower limbs can restrict movement, cause excruciating pain and, if left unattended, can lead to gangrene and the need to amputate. If identified early enough, blood flow to the lower limbs can be restored through revascularisation procedures. Currently, around 8,000 lower limb amputations are carried out on the NHS each year; some of these could be avoided by timely revascularisation.

The delays were discussed during GIRFT visits and a range of factors were identified as contributing, from lack of available facilities to lack of staff to lack of integration with other departments. Finally and crucially, the majority of vascular surgery has become restricted to 'normal' working hours, immediately limiting the number of procedures that can be carried out per week. At present, just six NHS hospitals in England offer elective vascular surgery at weekends, even though they will have teams on call for the small number of emergencies they will face.

The guiding recommendation: adopt a network model

In the context of patient need for vascular surgery, the divide between elective and emergency surgery is inappropriate. There are very few genuine emergencies, but almost all patients need surgery urgently. To that end, patients would be better served by units adopting a daily list for all vascular surgery procedures, with the view to all patients receiving urgent care seven days a week. This clearly cannot happen in every hospital, so to enable it, this report recommends that vascular surgery is delivered via a hub and spoke network model, as defined in the national service specification¹. To achieve the standards defined by this service specification, GIRFT and NHS England (NHSE) expect that there will need to be a reduction in the number of vascular units.

Working together to reduce length of stay and readmissions

This fundamental recommendation then underpins the other changes recommended in the report. For example, reflecting evidence gathered through the visits that sometimes patients spend longer in hospital than clinically necessary due to concerns about their overall health and care, it recommends working more closely with other departments and services – from cardiology and renal to physiotherapy – to improve prehabilitation. In a hub, where the caseload is higher, it will be easier to establish protocols for such working. The same applies to post-operative care, which can then help reduce readmissions.

Addressing data quality issues

Alongside these core recommendations to improve care, the report also highlights the need to improve data collection related to vascular surgery. The report notes a discrepancy between the volume of activity recorded in the National Vascular Registry (NVR) and that recorded in Hospital Episode Statistics (HES) and makes several recommendations to improve data capture.

Making it happen

The report makes 17 recommendations in total, covering a wide range of themes. However, the guiding recommendation is the first, relating to the establishment of effective hub and spoke networks. To support providers in building networks – or, where there is already a network of some form, strengthening them – the GIRFT programme has set up regional hubs that can provide practical advice based on data, the feedback from visits and the expert input of experienced clinicians.

¹ NHSE Specialised Vascular Services (Adults), available via www.england.nhs.uk/wp-content/uploads/2017/06/specialised-vascular-services-service-specification-adults.pdf

List of recommendations

1. Ensure all units are operating within a hub and spoke network model, as defined by the national service specification, emulating the most advanced hub and spoke models that exist currently. This in turn should deliver improved early decision-making capability and access to diagnostics, allowing early treatment, prioritised by degree of urgency.
2. Reduce the time from presentation to surgery for all patients in need of CEA to seven days from presentation.
3. Accelerate the referral to treatment time for all patients identified as in need of AAA surgery, whether identified via a screening programme or any other route.
4. Continue on-going work to promote the National AAA Screening Programme (NAAASP) to help ensure early identification, enabling treatment before emergencies occur.
5. Increase the early availability of revascularisation surgery where lower limb ischaemia is present, to help reduce amputation rates.
6. Ensure optimum list scheduling.
7. Assess the need and options to increase the vascular surgery and interventional radiology workforce to support sustainable delivery of recommendations 1-5.
8. Improve prehabilitation for AAA, PVD and CEA, particularly with regards to perioperative medical input.
9. Reduce avoidable readmissions by improving perioperative care and follow up.
10. Ensure case ascertainment to the National Vascular Registry reaches more than 85%.
11. Improve quality of routine data entry and collection.
12. Improve coding for complex aneurysms emergency vascular surgical activity.
13. Improve insight into patient experience in vascular services, to support clinically led improvement.
14. Require at appraisal surgeon-level intelligence on activity and outcomes.
15. Increase use of ward-based recovery to a level of approximately 90%.
16. Enable improved procurement of devices and consumables through cost and pricing transparency, aggregation and consolidation, and the spreading of best practice.
17. Reduce litigation costs by application of the GIRFT programme's five-point plan.

Next steps: implementation

This report has underlined a need to transform services and practice at pace, to reduce variation and, in so doing, deliver a higher quality, more sustainable service. As such, NHS Improvement's objective is for GIRFT implementation in vascular surgery to be complete, and a new business as usual phase reached, by July 2019. The principal mechanism for doing this will be delivery of tailored implementation plans in each trust, which will translate this report to meet local needs.

Trusts should begin developing their implementation plan, based on:

- the specific recommendations reported to the trust following the GIRFT visit;
- the recommendations in this national report.

In developing and delivering their implementation plans trusts should prioritise:

- the recommendations most emphasised in the GIRFT visit report, which would be based on both the data and the discussions during the visit;
- actions against this report's recommendations, based on the timeline indicated, with some requiring either immediate action, or progress by April or July this year.

To achieve results, it is vital that clinicians, management and all staff within trusts work together to progress these plans. Where this report recognises that national guidance, or any other national support, is needed prior to provider implementation, this is reflected in the timescales associated with our recommendations.

NHS Improvement and the GIRFT programme team recognise that developing implementation plans and delivering against them may be challenging. As such, GIRFT Regional Hubs across England will support trusts by providing advice and management support, including advice on developing and troubleshooting implementation plans, as well as access to clinical advice. The hubs will also lead a buddying process to help spread best practice between trusts, and manage dependencies with other transformation efforts including STPs, ACCs and NHS RightCare. The core GIRFT data will be updated on an annual basis, to enable trusts to monitor progress, and where necessary reprioritise their implementation efforts.

Central to this report is developing further the hub and spoke model of vascular services, as defined in the national service specification. Examples of this model are well developed in some parts of the country. Nonetheless, there remains a need to emulate the most advanced models more widely. To deliver this, GIRFT will work closely with NHSE Specialised Commissioning, alongside other partners.

We will also ensure policy links and dependencies with national bodies associated with this report are managed effectively. For example, we will notify NICE of all recommended changes to practice that might affect its guidelines relevant to vascular surgery, including the guideline under development for *Abdominal aortic aneurysm: diagnosis and management*.

To provide assurance of consistency within the service specification, NHS England will consider how best to reference this report.

**The full report and executive summary are available to download as PDFs from
www.gettingitrightfirsttime.co.uk**

WHAT IS VASCULAR SURGERY?

Vascular surgery covers a range of surgical procedures to improve blood supply to organs and areas of the body. While some vascular surgery is carried out to remove or repair veins, the vast majority is conducted on arteries: reconstructing damaged arteries, or unblocking or bypassing arteries that are blocked by atherosclerosis. Because it stops the blood flow to vital organs, atherosclerosis – often known as hardening or furring of the arteries – is one of the most common causes of death in the UK. It is a condition that develops over time, with clinical signs becoming apparent from middle age.

In many cases, when first diagnosed, blocked or narrowed arteries are treated with medication; surgery only takes place when blood flow is dangerously restricted. As a result, the majority of patients receiving vascular surgery are often very frail; the surgery is urgently needed to repair an aneurysm, improve blood flow to an organ (e.g. the brain) to prevent a stroke, or to a limb to avoid the need to amputate. Compared to some other surgical disciplines, there is little room here for delayed surgery – as whenever major surgery to arteries is needed, there is always a risk to life or limb.

Surgery is complicated by the common prevalence amongst patients of co-morbidities such as hypertension, diabetes, chronic lung disease and ischaemic heart disease. On average, vascular surgery patients have 1.7 co-morbidities and over a third of those undergoing surgery are over 75 years old. This in turn means their 'fitness' for complex surgery is often very low.

With lower fitness, the risk of complications and readmissions increases and more intensive post-surgical care is typically required. Mortality rates are also higher than in most other types of surgery.

Procedure volumes and types

Each year, approximately 43,000 vascular surgery procedures are carried out in England. The total number of procedures has gradually increased in recent years as new surgical techniques such as Endovascular Aneurysm Repair (EVAR) have been developed. Because these techniques are potentially less debilitating for patients, they have helped lower the threshold for surgical intervention and meant more unfit patients can receive surgery.

Vascular surgery is offered in 70 NHS trusts and there are approximately 450 consultant vascular surgeons. However, some procedures are also led or overseen by vascular interventional radiologists – again crucial in increasing the availability of vascular procedures.

As well as widening access, there have been concerted efforts to improve standards in vascular surgery, increase survival rates through more timely interventions and reduce waiting times. The National Abdominal Aortic Aneurysm Quality Improvement Programme (AAA QIP) was set up in response to recognition that post-operative mortality rates in the UK were higher than in other countries in Europe. This led to the creation of the National AAA Screening Programme (NAAASP), discussed further below.

In 2012, vascular surgery was formally recognised as a specialty in its own right, having previously been a subspecialty of general surgery. Around the same time, proposals were published to establish vascular surgery networks, consisting of surgical hubs – hospitals serving as a loco - regional centre for vascular surgery, that have the resources to provide surgery 24x7 – that work with additional spoke hospitals, which can conduct outpatients' services including screening and some minor surgical procedures. A growing number of hospitals are now part of a vascular network, but the model has not yet been fully established, as defined by the national service specification.

Like other specialties that are being examined as part of the GIRFT programme, vascular surgery shows variation in demand, supply, treatment choices, outcomes and costs. To examine this variation, the report focuses on three core vascular surgery pathways:

- abdominal aortic aneurysm (AAA) screening and repair;
- carotid endarterectomy (CEA) to unblock the carotid arteries and reduce the risk of stroke;
- lower limb revascularisation (including amputation) to address peripheral vascular disease (PVD).

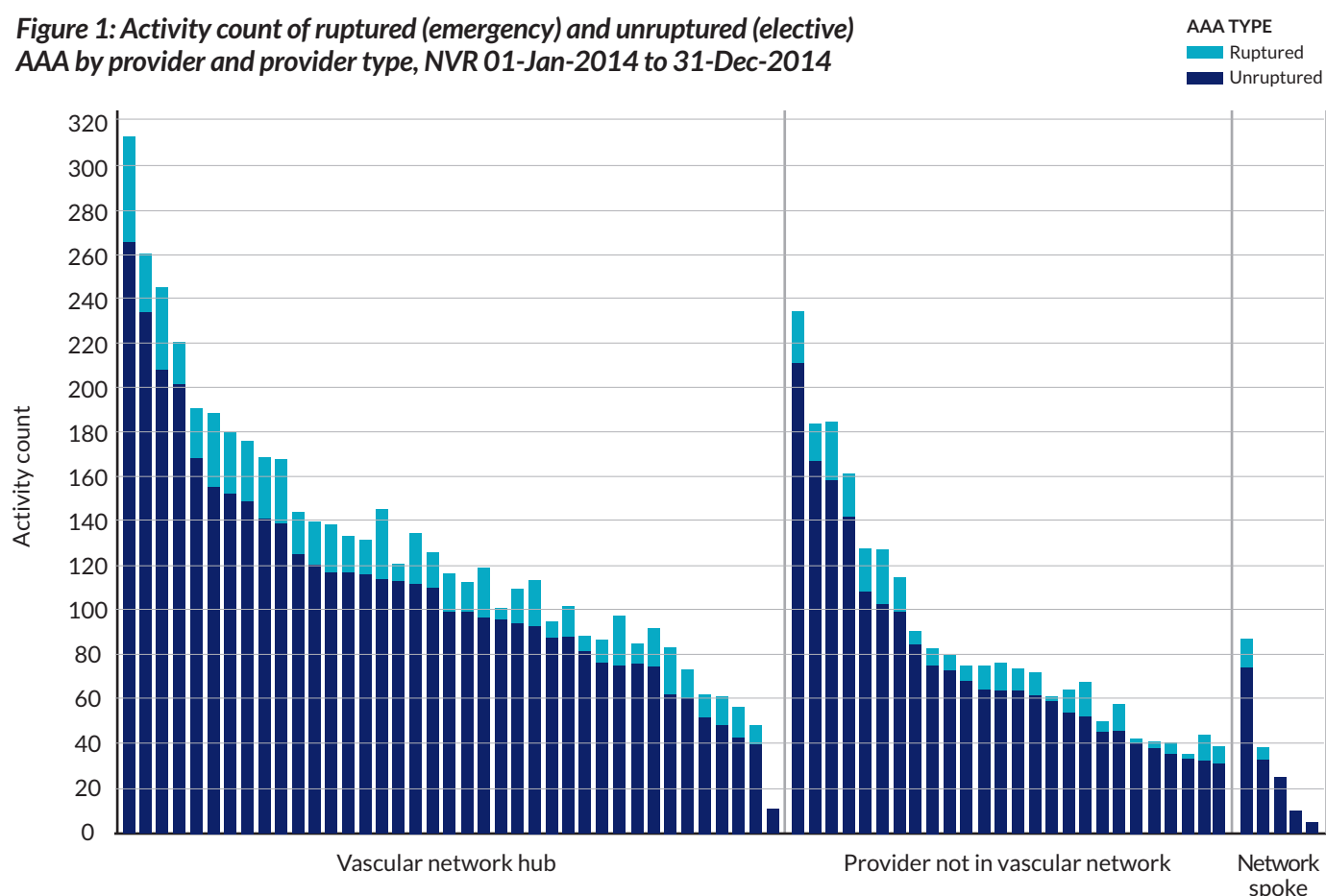
These three pathways, all of which address very serious conditions, represent a substantial percentage of all vascular surgery procedures. Furthermore, they have all been recorded in the National Vascular Registry (NVR) for some years; this means there is sufficient data around all three to derive findings and recommendations.

Pathway 1: Abdominal aortic aneurysm (AAA) screening and repair

An abdominal aortic aneurysm (AAA) is a bulge or swelling in the aorta. They typically occur below the kidneys and tend to grow slowly over a number of years. Some patients with an AAA experience pain in the abdomen, chest and lower back; in many people, there are no obvious symptoms. The main risk associated with them is rupture, leading to internal bleeding and a sudden loss of blood pressure. Rupture is usually fatal without emergency surgical treatment.

Vascular surgery is conducted as soon as possible when an AAA has ruptured; this is one of the few areas of vascular surgery that qualifies as a true emergency. Approximately 1,000 such procedures are conducted each year. However, as the chart below shows, the majority of procedures are on unruptured AAA: these are undertaken to try and prevent rupture.

Figure 1: Activity count of ruptured (emergency) and unruptured (elective) AAA by provider and provider type, NVR 01-Jan-2014 to 31-Dec-2014



In 2009, to identify patients with AAA and prevent rupture, the National Abdominal Aortic Aneurysm Screening Programme (NAAASP) was introduced. All men over the age of 65 – the demographic at greatest risk – are invited to be screened for AAA. This involves an ultrasound scan of their aorta; if patients have an aorta between 3cm and 5.4cm wide, they are asked to return annually for monitoring as this indicates the aorta is abnormally wide. Where an aorta is found to be 5.5cm or wider, surgery is usually recommended. This is deemed 'elective' surgery. In 2015, 4,198 elective AAA repairs were recorded in the National Vascular Registry.

The national target for the NAAASP is to screen 75% of all those eligible. Currently, screening rates nationally are 79.9%; however, there is considerable variation within this. Nationally, 41 Clinical Commissioning Groups (CCGs) failed to meet the target, 18 of which were in London. In one area of London, just 57.6% of eligible men over 65 have been screened. These figures suggest that while screening is available in the area, it is currently under-subscribed; the next step may be to focus on raising awareness at a local level of the importance and availability of screening to increase uptake amongst 'under-screened' groups.²

² It is important to note that the targets are based on percentages of the eligible population, not the total number screened. This means that areas with higher populations may be conducting as many, or more, screenings as those with lower populations, yet not meeting the target.

Initial projections were that for every 1,000 men screened, 14 would need monitoring, and one would require surgical intervention.³

Table 1: NAAASP screening volumes and referrals 01-Apr-2015 to 30-Mar-2016

| | Initial screen activity | Initial screen percentages of total | Initial screen activity | Self-referral screen percentages of total |
|------------------------------------|-------------------------|--|-------------------------|--|
| Number eligible | 284,971 | 100% | 24,701 | 100% |
| Number offered a screen | 284,583 | 99.9% of those eligible are offered a screen | 24,701 | 100% of those eligible are offered a screen |
| Number with conclusive screen | 227,543 | 79.8% of those offered a screen obtain a conclusive screen | 21,091 | 85.4% of those offered a screen obtain a conclusive screen |
| Number with aorta at 3cm or less | 224,994 | 98.9% of those with a conclusive screen have a normal aorta | 20,476 | 97.1% of those with a conclusive screen have a normal aorta |
| Number with aorta at 3cm or larger | 2,549 | 1.1% of those with a conclusive screen require surveillance or surgery | 615 | 2.9% of those with a conclusive screen require surveillance or surgery |

Source data supplied by Public Health England: NHS screening programmes in England via Screening Management and Referral Tracking (SMaRT)

Clearly, once a patient is identified as at risk of rupture, surgery should be delivered urgently. One key issue emerging from GIRFT visits was that this does not always happen. Patients on the 'elective' list may receive a date several weeks away, bringing with it the risk of rupture in the meantime.

Where AAA surgery takes place, there are two main methods: open surgery and EVAR. As both involve repair to the aorta, both are complex, high-risk procedures; however, EVAR is less invasive and recovery times are typically shorter. As a result, around 75% of elective AAA surgery is now conducted by EVAR, with only one provider below the 50% mark. By contrast, approximately two-thirds of emergency AAA repairs are conducted by open surgery: though the number of emergency procedures is much lower, with only four providers undertaking more than 30 a year, the evidence suggests that hospitals are adhering to the more established approach in emergency care.

There are some indications that EVAR may not be as durable and effective in the long term, with some repairs effectively 'wearing out' after 10-15 years. One implication of this could be that where a patient's life expectancy is longer, open surgery may be a better option.

The GIRFT process identified substantial variation in the costs of AAA surgery. Reported costs for elective EVAR procedures varied between £2,251 and £19,690 with no apparent reason for this and no indication that lower cost procedures are less effective⁴. Though further investigation is needed, there would appear to be an opportunity to deliver efficiency savings related to this.

³ The Provision of Services for Patients with Vascular Disease 2015
https://www.vascularsociety.org.uk/_userfiles/pages/files/Resources/POVS%202015%20Final%20version.pdf

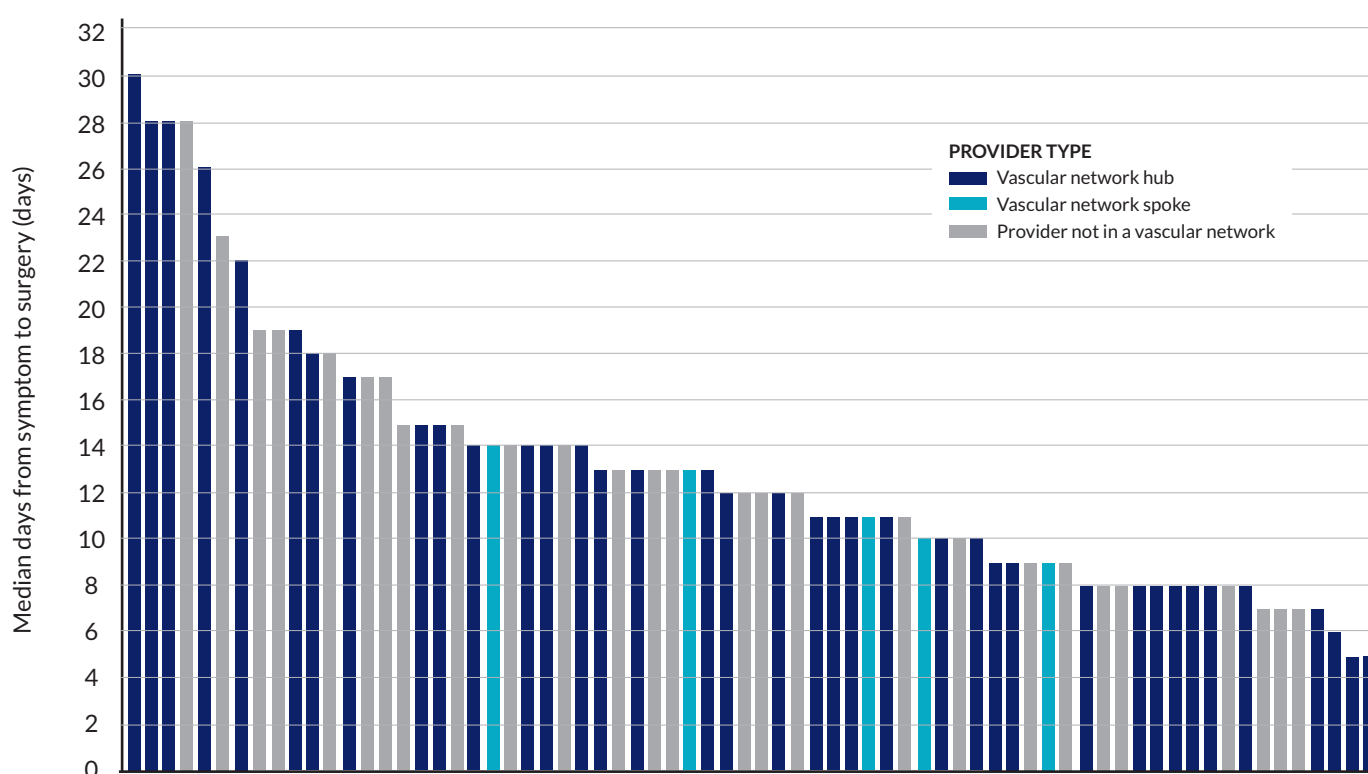
⁴ 2016/17 reference cost, HRG=YR04Z, excluding daycase and Providers with fewer than 10 procedures

Pathway 2: Carotid endarterectomy (CEA)

A carotid endarterectomy (CEA) is a procedure that removes the atherosclerotic build-up in the carotid arteries. These are the arteries that carry blood to the brain. It is typically carried out in patients who have had a minor stroke or transient ischaemic attack (TIA), with the aim of preventing a major stroke. (It is estimated that around a quarter of the 110,000 strokes recorded in the UK each year are related to narrowing of the carotid arteries). Approximately 4,200 CEA procedures are carried out by the NHS annually.

It's widely agreed that, to deliver the maximum chance of avoiding a major stroke, CEA procedures should be undertaken urgently following a minor stroke or TIA. NICE has set national targets of seven days from diagnosis to referral, and then a further seven days from referral to CEA surgery – meaning surgery should take place within two weeks of diagnosis. However, there is wide variation nationally in the median wait time from diagnosis to surgery for a CEA procedure, and in principle the sooner the operation is done following presentation the better.

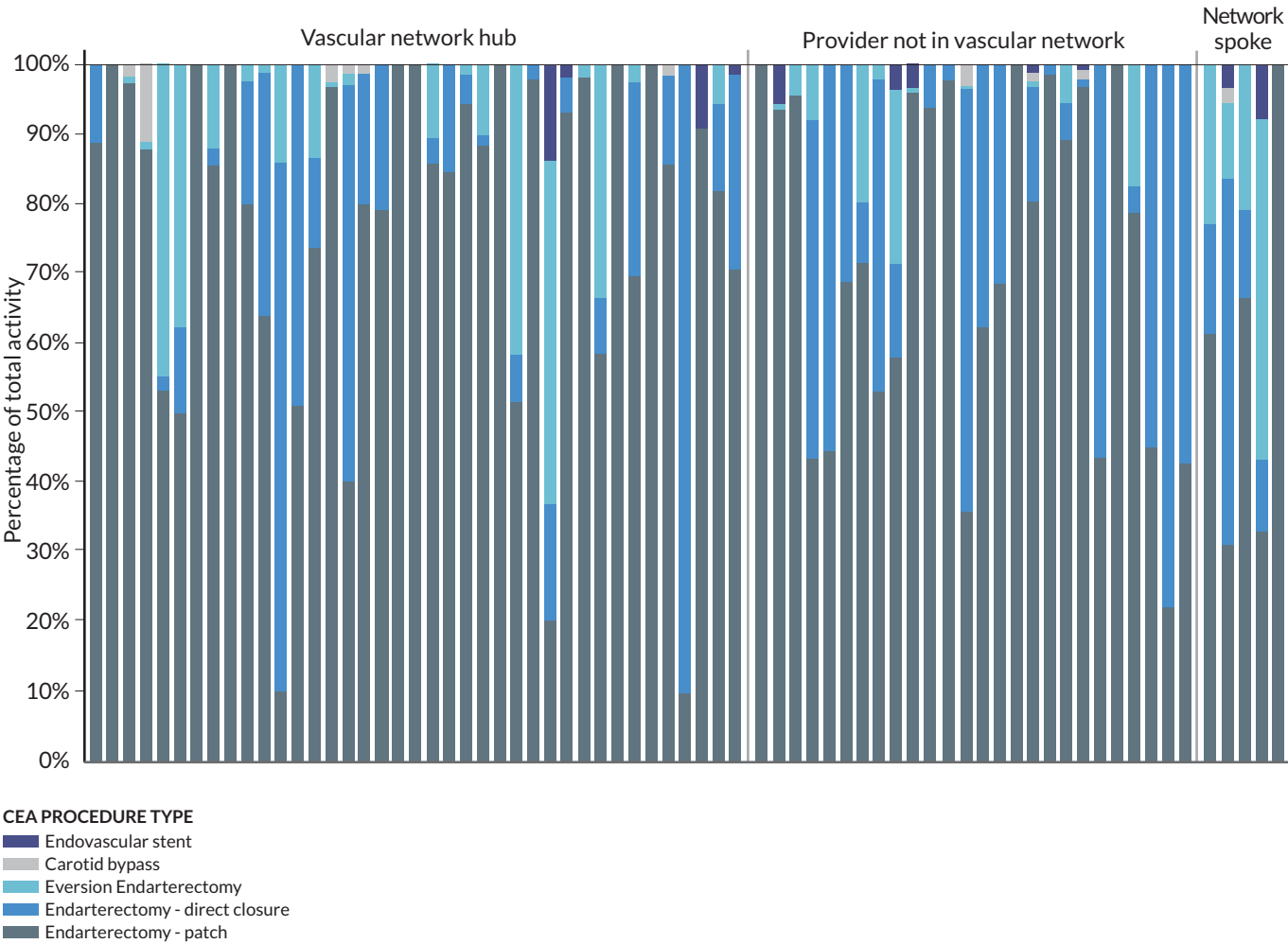
Figure 2: Median days from diagnosis of symptom to surgery for CEA repair by provider and provider type, NVR 01-Jan-2014 to 31-Dec-2014



The graph above shows that a significant number of providers are failing to meet the NICE target of 14 days. In some areas, surgery typically takes place within five days; in four areas, it takes 28 days or more. Closer inspection reveals there are many providers that meet one 'half' of the NICE guideline – delivering either diagnosis to referral within seven days, or referral to surgery within seven days – but not both. The reasons for not meeting the targets are not clear or consistent; the GIRFT visits indicated that in some cases it was a capacity issue, while in others, it was related to the overall pathway and connections between different services.

There are a range of different methods of CEA procedures; the most common is patch endarterectomy – using a small surgical patch to close the artery once the atherosclerotic deposit in it has been removed – followed by direct closure (stitching) and eversion endarterectomy. As the graph below shows, the majority of providers offer two procedure types, though some providers only undertake patch repair. In general, repair type is defined by surgeon's choice of what will offer the best outcome. The data here does not imply any recommendation of one repair type over others, but is included to provide useful context for surgeons and trusts, when discussing potential improvements.

Figure 3: Percentages of total CEA activity by repair type (modality of care) for all providers, NVR 01-Jan-2014 to 31-Dec-2014



Pathway 3: Lower limb revascularisation (including amputation)

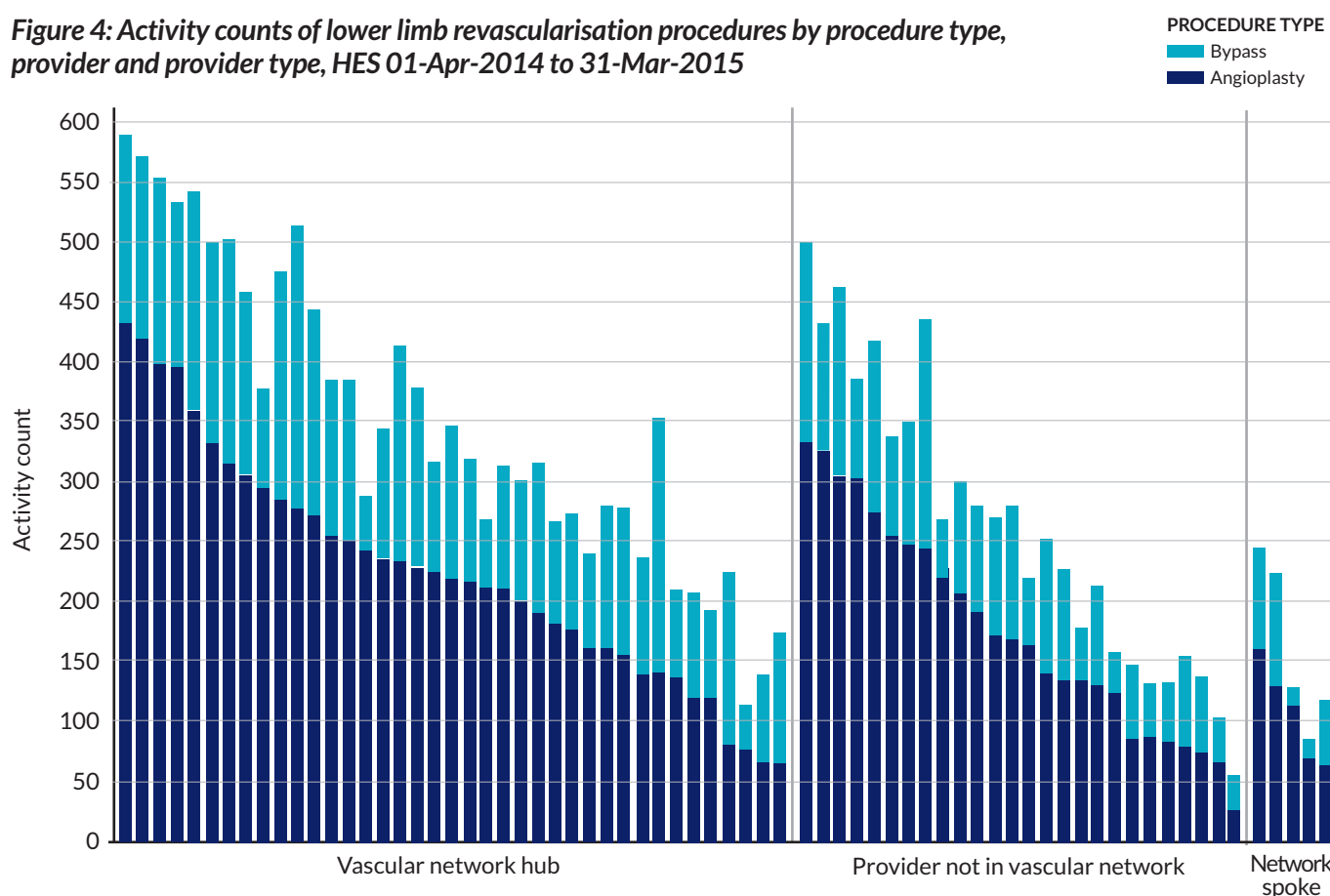
Lower limb revascularisation refers to procedures that treat the arteries in the legs for peripheral vascular disease (PVD). These procedures improve blood flow to these limbs and so make it easier and less painful for patients to move around. When done in a timely way, revascularisation can prevent the need to amputate. However, when examining this pathway, amputation has also been studied as it is often an alternative surgical option where revascularisation would not work, or has not worked.

Lower limb revascularisation is the most common type of vascular surgery with over 22,800 procedures conducted a year. There are two main types:

- angioplasty, which involves using a 'balloon' initially to widen the artery, sometimes also inserting a stent to help maintain patency;
- bypass, which involves diverting blood around the blocked arteries. To do this, surgeons build a 'new' blood vessel, either using vein from another part of the body or a prosthetic graft.

Bypass surgery takes longer to perform and longer to recover than angioplasty. The average length of stay for elective lower limb bypass is 3.8 to 14.8 days, compared with 0.5 to 4.5 days for elective angioplasty. The majority of providers carry out more angioplasty procedures than bypass, but in some areas, the reverse is true. This variation is often driven by availability of staff or resources.

Figure 4: Activity counts of lower limb revascularisation procedures by procedure type, provider and provider type, HES 01-Apr-2014 to 31-Mar-2015



Amputation is only considered when there is no revascularisation option. Approximately 8,000 lower limb amputations are conducted each year on the NHS.

Amputations are typically considered to be either major or minor. A major amputation is classified as a full lower limb amputation above or below the knee. Minor amputations involve incomplete amputation of the lower limb usually confined to the foot. Historically, there have been concerns about the high mortality rate following major amputations: in 2010 a Quality Improvement Framework (QIF) was introduced to address this issue. Latest data shows mortality is 7.5% for major amputation⁵.

What this figure underlines is that patients needing major amputation are often extremely frail and that surgery of this scale is a significant risk. This is also demonstrated by the high emergency 30-day readmission rate for any reason following a major lower limb amputation, which is 16.5%. Both the mortality and readmission rates are comparable to those seen for emergency laparotomy and can be greater than for some cardiac surgery. There are many factors that lead to higher mortality and readmissions rates. Forthcoming GIRFT workstreams in intensive and critical care and anaesthesia and perioperative medicine may provide further evidence to inform targeted improvements in these areas, to complement improvement led by vascular surgeons.

The overall picture

The variation summarised above is only a fraction of the data collected and analysed around these three core pathways. However, taken as a whole, it suggests:

- too many patients needing urgent surgery are facing long or uncertain waits – with national targets being missed; and
- a lack of consistency in the approach taken to the same condition – with different providers choosing different surgical methods in apparently similar circumstances.

The recommendations that follow are designed to address this variation, as well as some other issues that emerged from the data and visits.

⁵ In-hospital mortality during the initial admission or during an emergency readmission within 30 days of discharge, calculated using HES inpatient data April 2012 – December 2014

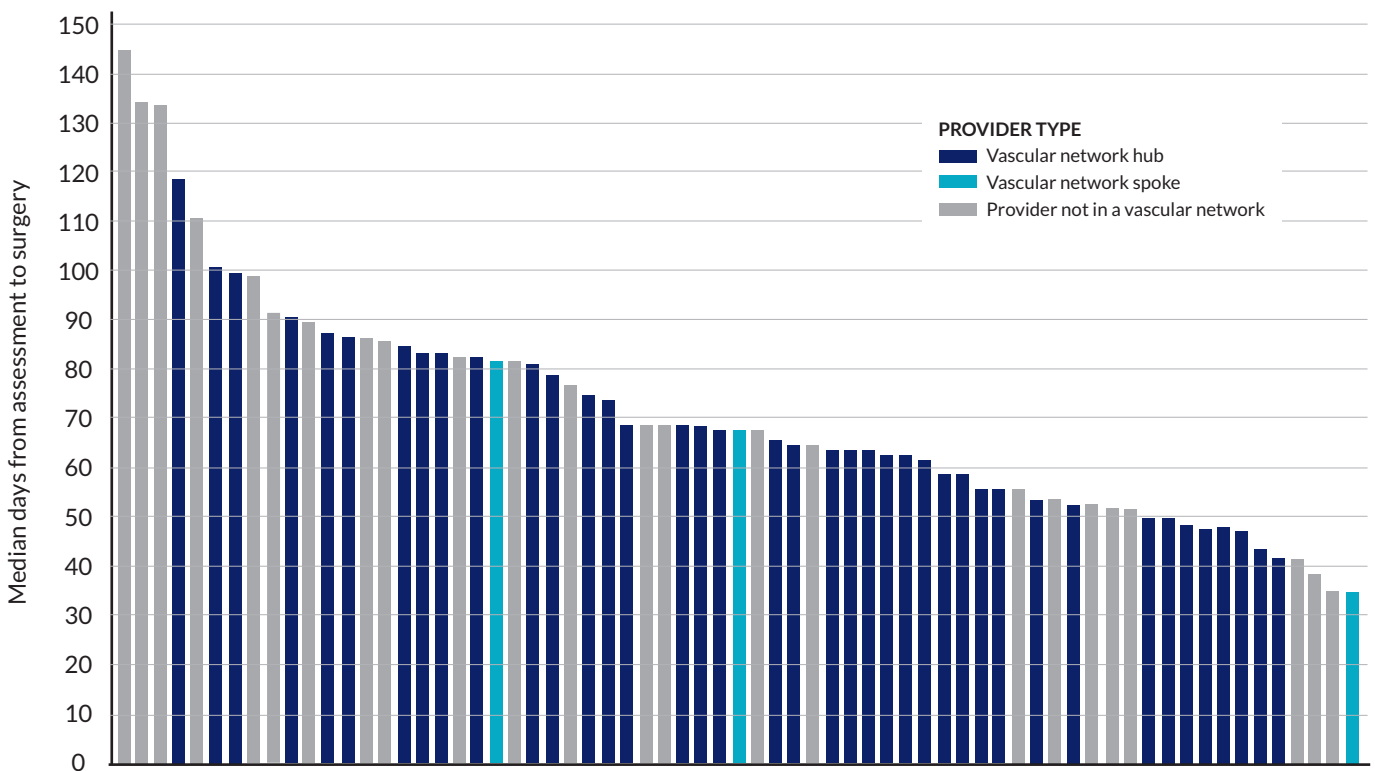
RECOMMENDATIONS

Reconfiguring vascular care as 'urgent'

The majority of NHS surgery is divided into 'elective' and 'emergency'. The theory is that this should ensure those in immediate need of surgery can be prioritised, while other patients can be operated on at a time that suits them and the provider. The model of provision is then structured to support this divide.

However, in vascular surgery, this divide doesn't work. Only a fraction of arterial surgery – essentially that related to ruptured AAA or surgical bleeding – is a genuine emergency, where a delay of even an hour or two could be critical. Yet almost all arterial surgery is, for one reason or another, urgent; once someone is identified as at risk of AAA rupture, surgery should happen swiftly to avoid the rupture. However, for 'elective' AAA, wait times currently range from 35 days (5 weeks) to 145 days (21 weeks).

Figure 5: Median days from assessment to surgery for elective AAA repair by provider and provider type, NVR 01-Jan-2014 to 31-Dec-2014



This not only means patients are at risk of rupture, but also that they are having to wait for months with that risk hanging over them.

As discussed earlier, many providers are currently failing to meet the NICE target of undertaking CEA within 14 days following a TIA or minor stroke. TIA and minor stroke are clinical indicators that the patient is at a high risk of a major stroke. On this basis, the 14-day target itself is arguably too long: CEAs should ideally be undertaken as soon as possible after the patient has stabilised following a TIA or minor stroke. This would both benefit the patient and benefit providers (caring for a patient who has had a major stroke is more resource-intensive than delivering CEA surgery).

Delaying surgery beyond when a patient has stabilised following a TIA or minor stroke, does not reflect their level of need. These patients should be considered for urgent surgery; while they may not be emergencies insofar as they don't need immediate surgery to save their lives, the risk of a stroke or a ruptured aneurysm grows with each passing day.

Yet evidence from the GIRFT visits indicated that there are also problems with urgent vascular surgery. Even though a patient has been identified as needing urgent surgery, providers are unable to confirm a time or date for the procedure. In many units, patients admitted as emergencies had to wait for angiography/angioplasty because lists were fully booked. The result is that critically ill patients are often simply kept in hospital until a surgeon, vascular radiologist and/or theatre is available.

The risk of patients diagnosed with one of these conditions dying or having a serious complication before surgery will be reduced by treating them in a more timely way, and this may also reduce the risk of mortality during surgery or in the days that follow. By changing the model to ensure all vascular surgery is provided as urgent, it should also reduce the likelihood of vascular patients presenting to emergency departments on a recurring basis, whilst they wait for surgery.

The causes of delays

When wait times were discussed with providers, a range of factors was identified as contributing, from lack of available facilities (theatres, beds, CT scanners) to lack of staff. The latter not only refers to surgeons but also the wider team: vascular interventional radiologists, anaesthetists, nurses and physiotherapists. For CEA in particular, the delay may reflect ineffective internal processes, with referrals from other departments – A&E, stroke physicians, cardiologists and GPs – taking a long time to reach the vascular team. Finally and crucially, there is also a sense that while an on-call roster can deal with emergencies out of hours, the majority of vascular surgery has become restricted to ‘normal’ working hours, immediately limiting the number of procedures that can be carried out per week. At present, just six NHS hospitals in England offer elective vascular surgery at weekends, even though they will have teams on call for the small number of emergencies they will face.

Based purely on clinical need, this model of care needs to change – and it requires first a shift in mind-set. Instead of dividing vascular surgery into elective and emergency streams, all arterial surgery should be recognised as urgent. To deliver sufficient procedures urgently, all surgical hubs should ideally provide theatre activity seven days a week.

Clearly, this cannot happen in every hospital; the costs would be too great and the volume of activity would not justify it. However, the national service specification has already defined that vascular surgery should be delivered via a hub-and-spoke network model, with hub hospitals fully equipped and resourced to carry out the majority of procedures.

The case for networks

Centralising resources and expertise at the hub has a number of benefits.

- It should mean there are more surgeons available in one location – so it becomes easier for the hub to undertake vascular surgery seven days a week.
- It means budgets can be pooled to invest in facilities such as CT scanners, hybrid theatres, where both endovascular and open surgery can be carried out (thus avoiding the need for a patient prepared for one technique to wait for the ‘specialist’ theatre to be ready) and larger, better equipped vascular wards.
- With a larger surgical team and a full range of facilities, it becomes easier to give patients a choice in the type of procedure they undergo and clinicians a choice in the type of procedure they recommend.
- At a hub with a higher number of patients, there will be a greater overlap with other medical disciplines, such as cardiology, radiology and care of the elderly. Building on this, it becomes easier to adopt a multidisciplinary approach, with standard protocols and processes for referral and post-operative care. On a practical level, it can mean working together to ensure that where surgery is provided seven days a week, relevant support from these other departments is available.

As acknowledged above, this is not a new argument. The proposal to adopt a hub and spoke network structure was first proposed by the Vascular Society more than ten years ago, and the model is reflected in the existing national service specification. Additionally, the 2013 Urgent and Emergency Care Review recommended better connections between urgent and emergency care services.⁶ However, progress to implement the model has been slow. At the time the data assessed as part of the GIRFT process was gathered, many providers were not part of a network; several of these are still not.

⁶ NHSE (2013) *Transforming urgent and emergency care services in England Urgent and Emergency Care Review End of Phase 1 Report* www.nhs.uk/NHSEngland/keogh-review/Documents/UECR.Ph1Report.FV.pdf

Figure 6: Hospital trusts offering vascular surgical services in England (January 2017)

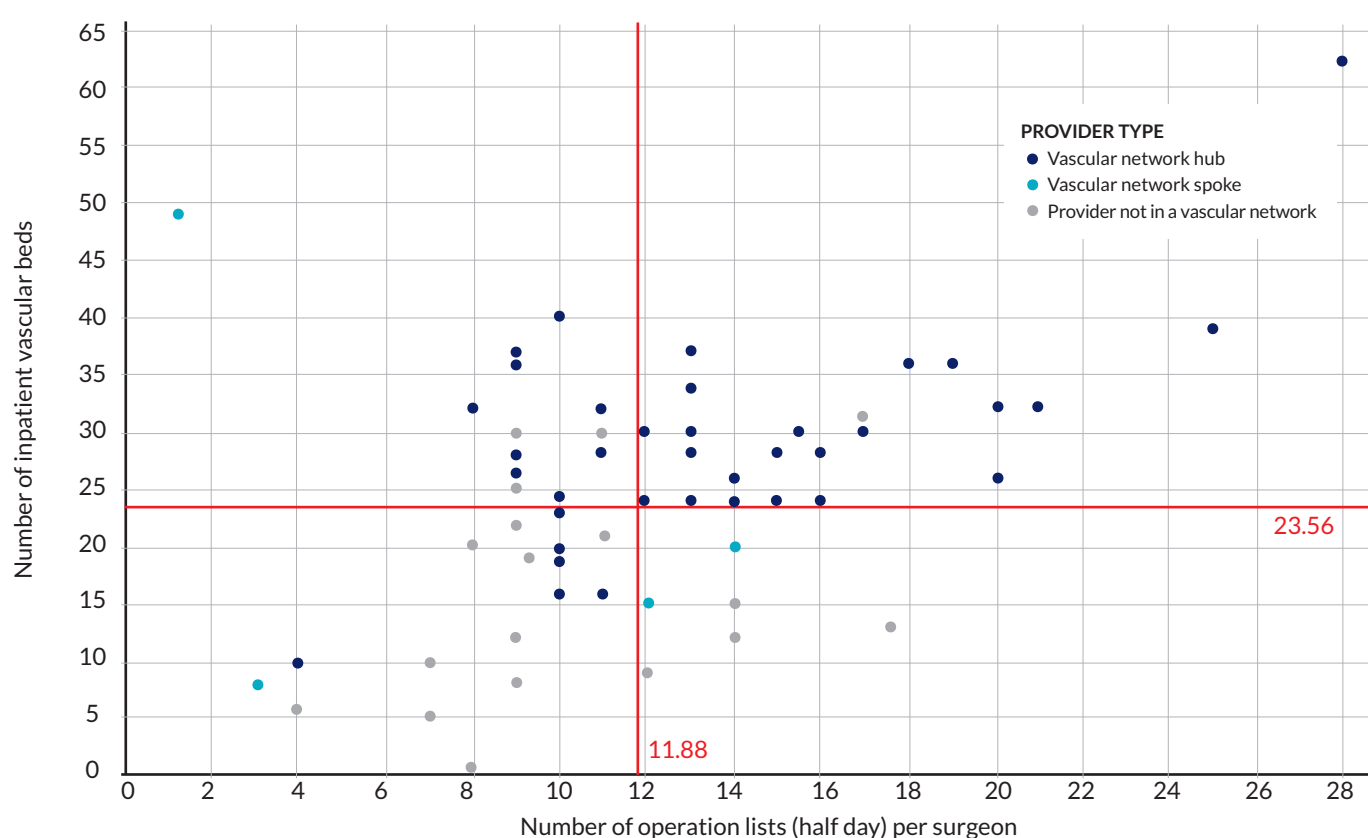


The networks themselves are at different levels of maturity; some are essentially networks in name only, and there is no clear agreement on the roles of the hub and spokes. As the graphs below show, this leads to huge variation in their size, staffing and throughput.

The largest hub has 60+ dedicated vascular beds and consultants complete 27 half-day lists a week; by contrast, one designated hub has just ten beds and its two consultants conducted four half-day lists a week between them.

One spoke has 45 dedicated vascular beds – the second most – yet completes just two half-day operation lists a week, potentially leaving these beds unused. Another spoke conducts 14 half-day lists a week, more than many hubs.

Figure 7: The number of half day operation lists per provider against the number of inpatient vascular beds by provider, and provider type NVR Oct-2015



These figures are highlighted to show the considerable difference in the implementation of a hub and spoke model to date, and help explain why – across all the data examined by the GIRFT team – some designated hubs have lower throughput, longer waits and poorer outcomes than some spokes and providers not in a network. It is also important to underline that in these spokes and non-network providers, there is often a great deal of excellent work being done by highly committed consultants and teams. Yet, the deep dive meetings have made clear that where the hub and spoke model is most advanced, where vascular surgery resources are clearly concentrated at the hub and – crucially – referral processes are well-established, there is a significant positive impact.

Based not only on this data, but also the need to reconfigure the vascular surgery model to treat all patients as urgent, the core recommendation of this report is to accelerate the implementation of the hub and spoke network model. The intention must be to emulate the well-developed hub and spoke networks which currently exist across the country.

This is no small task – as evidenced by the fact that it has not yet been delivered, despite strong recommendations to this same effect in the past. There are cultural, financial and logistical barriers, some of which continue even within established networks. Yet the network model remains the most practical and achievable way to deliver a vascular surgery service with the capacity and flexibility to provide urgent care for all patients.

| Recommendation | Actions | Timeline |
|---|---|---|
| 1. Ensure ALL units are operating within a hub and spoke network model, as defined by the national service specification, emulating the most advanced hub and spoke models that exist currently.* This in turn should deliver improved early decision-making capability and access to diagnostics, allowing early treatment, prioritised by degree of urgency. | 1A: Hubs must perform a minimum of 40 carotid endarterectomy and 60 AAA procedures a year and must be staffed by a minimum of six vascular surgeons and six vascular interventional radiologists. Hubs should seek to perform greater volumes than these minimums where possible. | By July 2018 for existing hubs. |
| | 1B: Where appropriate, NHSE Specialised Commissioning hubs should consider using existing contract management levers to achieve compliance. | To be agreed with NHSE Specialised Commissioning. |
| | 1C: Hubs to provide access to CT 24/7 within 30 minutes of patient arrival. | By July 2018 for existing hubs. |
| | 1D: Hubs to provide rapid access to theatre for ruptured AAA, within 30 minutes, covering staff and facilities for both open and EVAR modalities, ideally in a hybrid theatre. | By July 2018 for existing hubs. |
| | 1E: Hubs to provide scheduled operating, including at weekends. | By July 2018 for existing hubs. |
| | 1F: Hubs to provide timely vascular opinion to spoke hospitals. | By July 2018 for existing hubs. |
| | 1G: NHSE Specialised Commissioning to continue developing a service specification enabling consolidation of the most complex activity in a limited number of centres, seeking GIRFT clinical lead input as appropriate. | To be agreed with NHSE Specialised Commissioning. |
| | 1H: NHSE Specialised Commissioning Regional Hubs and GIRFT Hubs to ensure existing hub selection activity and GIRFT programme activity is co-ordinated effectively. | To be agreed with NHSE Specialised Commissioning. |
| | 1I: Prior to implementing new or developed hub and spoke arrangements, GIRFT to work with STPs to consider and provide for the resource impact on ambulance services, including the need for vehicles and paramedics. Any possible impacts on indicative activity plans or local quality requirements would need to be accessed. | To be agreed with NHSE Specialised Commissioning. |
| | 1J: Prior to implementing new networking arrangements, financial impacts must be considered by both NHSE Specialised Commissioning and providers, with support from NHSI pricing and GIRFT, who are working together to address these issues. | To be agreed with NHSE Specialised Commissioning. |
| | 1K: NHSE to lead proposed service changes, in collaboration with GIRFT, NHSI, STPs, and trusts, following necessary assurance changes. | To be agreed with NHSE and NHSI. |
| | 1L: GIRFT to advise NICE of recommended change to practice for consideration in development of NICE Guideline <i>Abdominal aortic aneurysm: diagnosis and management</i> . | For delivery within NICE's Guideline development process. |
| | 1M: GIRFT anaesthesia and perioperative medicine workstream to provide direct advice to providers to support implementation of urgent care, ensuring anaesthetic and perioperative medicine are co-ordinated effectively to support transition. Vascular workstream to provide reciprocal advice as necessary. | To be agreed with NHSE. Dependent on timescales agreed with NHSE. |
| | 1N: GIRFT to add case studies of most well-developed hub and spoke models to the GIRFT Good Practice Manual. | Upon completion of GIRFT vascular revisits. |
| | 1O: GIRFT Regional Hubs to liaise with NHSI Operational Productivity Estates sub-programme. | Dependent on time scales agreed with NHSE. |
| | *to clarify, when selecting hub sites, the location of existing Major Trauma Centres would need to be considered. Emergency vascular and IR should not be separated from existing MTC sites. | |

The shift to a full network model is linked to a desire for urgent care across all core vascular surgery pathways. The following recommendations are therefore all connected.

| Recommendation | Actions | Timeline |
|--|--|---|
| 2. Reduce the time from presentation to surgery for all patients in need of CEA to seven days from presentation. | 2A: Clinicians and providers to reduce presentation to operation to within seven days of onset of stroke or TIA symptoms, as recognised as desirable in the existing service specification, reflecting high risk of stroke in first 2 to 3 weeks from onset.* | For completion by July 2018. |
| | 2B: GIRFT to inform NICE of change to practice applicable to existing guideline on <i>Stroke and transient ischaemic attack in over 16s: diagnosis and initial management</i> . | For delivery within NICE's Guideline development process. |
| | *to clarify, the treatment timeline recommended by GIRFT is shorter than that recommended by NICE and therefore compatible with the NICE guideline. | |

| Recommendation | Actions | Timeline |
|--|---|---|
| 3. Accelerate the referral to treatment time for ALL patients identified as in need of AAA surgery, whether identified via a screening programme or any other route. | 3A: NHSE Specialised Commissioning to consider introducing a referral to treatment timeline of eight weeks, following definitive CT scan, for all AAAs of 5.5cm or above, regardless of whether they were identified via screening or not, given that unscreened AAAs represent higher risk. Treatment to include any medical support to optimise patient. | April 2018 |
| | 3B: Ahead of implementation, any impacts on local quality requirements and indicative activity plans would need to be assessed. | For action upon completion of 3A. |
| | 3C: GIRFT to advise NICE of recommended change to practice for consideration in development of <i>Abdominal aortic aneurysm: diagnosis and management</i> . | For delivery within NICE's Guideline development process. |

| Recommendation | Actions | Timeline |
|--|---|---|
| 4. Continue ongoing work to promote the NAAASP to help ensure early identification, enabling treatment before emergencies occur. | 4A: GIRFT Regional Hubs to identify any options for joint working or information sharing with NHSE Local Area Teams. | On-going, throughout GIRFT implementation |

| Recommendation | Actions | Timeline |
|---|--|--|
| 5. Increase the early availability of revascularisation surgery where lower limb ischaemia is present, to reduce amputation rates.* | 5A: GIRFT and NHSE to discuss faster referral to treatment times for revascularisation, as well as more rapid referral from primary care, and ensure evidence base for any proposed change. | To be agreed with NHSE. |
| | 5B: Clinicians and trust management to progress as far as possible within units and existing networks. | Dependent on 5A. |
| | 5C: The Vascular Society to design a Lower Limb Ischaemia Quality Improvement Framework (LLIQIF) to improve revascularisation rate and reduce amputation, indicating clear pathway timelines from referral. | July 2019 |
| | 5D: Providers to follow the requirements of the new LLIQIF, and NHSE Specialised Commissioning to consider reflection in service specification. | Upon completion of 5C. |
| | 5E: Primary care to consider use of NICE clinical audit tool to implement diagnosis recommendations in NICE guideline <i>Peripheral arterial disease: diagnosis and management</i> and refer accordingly, alerting commissioners prior to change in practice.** | For immediate action. |
| | 5F: GIRFT Regional Hubs to discuss provision of urgent outpatients' appointments for non-diabetic ischaemic foot with providers and CCGs to enable early referral and thus identification of the need for revascularisation. | Progress to have been made by July 2018. |
| | <p>*to clarify, this recommendation is compatible with the recommendation in NICE Guideline <i>Peripheral arterial disease: diagnosis and management</i> to offer revascularisation.</p> <p>**to clarify, this recommendation supports implementation of the diagnosis recommendations in NICE Guideline <i>Peripheral arterial disease: diagnosis and management</i>.</p> | |

In implementing this latter recommendation, it will be particularly important to address an issue that emerged during the GIRFT visits.

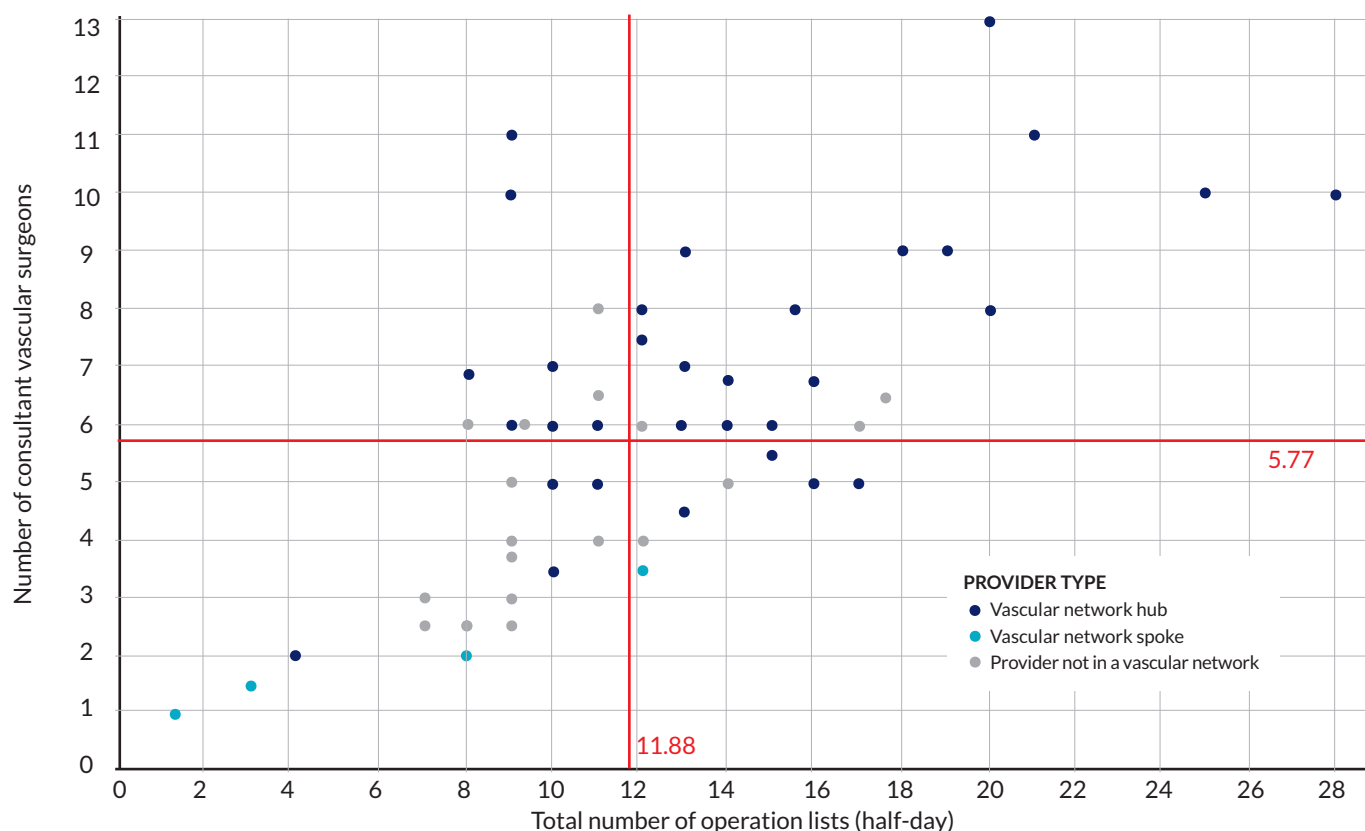
Many patients requiring lower limb vascular surgery have diabetes and because of the strong correlation between these two conditions, a large number of hospitals have regular diabetic foot clinics to deal with ulcers and infections. These are often the route by which patients are referred for revascularisation. However, non-diabetic patients do not have such regular clinics and as result the need for revascularisation may not be recognised early enough, particularly in primary care. Too often, these patients are referred at a comparatively late stage; meaning amputation is then more likely. An essential element of the pathway will therefore be to explore opportunities for earlier referral of non-diabetic patients.

The surgeons' workload

In moving to the urgent care model, there is clearly a need to prioritise patients, based primarily on their need. Therefore, both the overall list and the individual surgeons' lists should be managed by consultants, who can also identify where there is a genuine emergency.

To provide the urgent service envisaged above, it's not simply sufficient to increase the number of surgeons employed. There also needs to be greater clarity about the volume of work that trusts should require and expect of surgeons. This is important in terms of workforce planning at individual trust level and nationally. At present, there is wide variation not only in the number of surgeons that different hospitals employ, but also the workload they carry out – as the graph below shows.

Figure 8: The number of half day operation lists against the number of vascular surgeons by provider and provider type, NVR Oct-2015



Firstly, it should be noted that in general, it appears that hubs carry out more half-day operation lists than providers not in a network. Also, the units with the highest number of surgeons are all hubs. This is entirely how it should be. Further, this chart does not show the activity count of these units; it is possible that some are conducting many more operations than the number of lists would suggest.

However, while in some hubs – and a couple of non-network providers – surgeons are averaging three in-patient vascular half-day lists a week, there are others where surgeons appear to carry out just one or two half-day lists a week. At the extreme, one hub with 11 contracted surgeons reportedly completes just nine half-days lists a week. This appears unsustainable.

Of course, operation lists only represent part of the consultant's workload and there always needs to be some consideration of emergency capacity. Evidence gathered during the GIRFT visits indicated that in many units, patients admitted as emergencies had to wait for angiography/angioplasty because lists were fully booked: clearly, this needs to change and the approach of moving all patients to a combined 'urgent' list can help address it. This approach would combine dedicated half-day lists with space to fit emergency cases in, and the overall list would be managed by consultants, based on clinical priority.

| Recommendation | Actions | Timeline |
|------------------------------------|---|--|
| 6. Ensure optimum list scheduling. | 6A: Trusts to organise vascular surgery around combined 'urgent' lists. | For completion by July 2018. |
| | 6B: Clinicians and trust management to ensure surgeons perform a minimum of three inpatient half-day lists, two outpatient sessions and a day-case list per week. | For completion by July 2018. |
| | 6C: GIRFT to work with Vascular Society to develop prioritisation methodology based on risk. | For completion by July 2019. |
| | 6D: NHSI Operational Productivity Clinical Productivity sub-programme to reflect this recommendation in any guidance products, seeking further GIRFT Clinical Lead input as necessary. | To be considered within Clinical Productivity sub-programme. |
| | 6E: Trusts to engage with NHSE Specialised Commissioning to inform them of any possible increase in activity flowing from this recommendation. Any possible impact of indicative activity plans would need to be assessed. | For action immediately, if applicable. |
| | *Note that a full day list should typically consist of two to three arterial cases, e.g. two open aneurysms but three carotid endarterectomy or lower limb bypass procedures. | |

Based on this, a hub would need a minimum team of at least six consultants, backed by six interventional radiologists and other key team members. This works on the assumption that surgery should be provided over weekends too; teams already have to work at weekends when on call for emergency surgery, so it should be possible to change this to include scheduled urgent surgery too. That said, any change would need to be extended to other parts of the workforce too, so it would be important to gain their support.

Workforce planning

Setting standard parameters for consultants' workload helps with workforce planning at trust level. However, trusts can only recruit from the available vascular surgery workforce and concerns about whether or not this is sufficient have been long documented. In 2014, the Vascular Society published a Workforce Report⁷ that highlighted a range of issues. At present, in England there are approx. seven radiologists per 100,000 of the population (most of these will be non-interventional) and one vascular surgeon per 137,000. These figures are much lower than our international counterparts. Demand is rising and it is known that many vascular surgeons are expected to retire in the next decade. There is therefore a need to plan ahead and develop a workforce strategy – not just for surgeons but for all members of the vascular team. In particular, to ensure the workforce is sustainable, the numbers of vascular specialists in training will need to increase.

| Recommendation | Actions | Timeline |
|--|---|---|
| 7. Assess the need and options to increase the vascular surgery and interventional radiology multidisciplinary workforce to support sustainable delivery of recommendations 1-5. | 7A: GIRFT and Vascular Society to discuss Workforce Report with HEE, to consider next steps. | For completion by July 2018. |
| | 7B: GIRFT and NHSE Specialised Commissioning to discuss possible joint working in this area. | To be agreed with NHSE Specialised Commissioning. |

One advantage of the hub model is that each hub is likely to conduct different procedures on a more regular basis than a spoke or smaller unit would be. This in turn means teams accumulate more experience in complex procedures. Evidence indicates this should improve outcomes; it's widely accepted that there's a 'minimum' number of procedures that surgeons should conduct each year to maintain their knowledge and skills, and it seems logical that a similar principle would apply to other members of the clinical team.

Important experience can also be gained when surgeons work alongside a more experienced colleague on the more complex procedures. This not only helps build their knowledge and experience but also serves to accelerate the procedure, reducing time under anaesthetic and thus reducing risk. Units that have adopted this approach have suggested that 'doubling up' doesn't reduce capacity or throughput but conversely increases it.

⁷ Vascular Society – Vascular Surgery UK Workforce Report 2014
https://www.vascularsociety.org.uk/_userfiles/pages/files/Document%20Library/VS-UK-Workforce-Report.pdf

Shorter stays, fewer readmissions

It's generally accepted that – as long as outcomes are good – shorter stays in hospital are evidence that a surgical service is functioning well.

When examining length of stay for vascular surgery, it is important to recognise the vast differences between procedure types and the recovery times associated with them. For AAA, EVAR procedures typically last a couple of hours and patients may be discharged within a day or two. Open surgery may take three or four hours to complete and patients may need to stay in for a week. Furthermore, in some cases, surgeons opt to undertake a staged closure following open repair of a ruptured aneurysm – meaning the patient receives two procedures, thus extending their stay.

Variation in length of stay for revascularisation

For lower limb revascularisation, there is a clear difference between angioplasty – where the national average elective length of stay varies from 0.5 to 4.5 days – and bypass, where elective patients are typically in hospital for between 3.8 to 14.8 days. In both cases, the longer stays are typically for patients who have diabetes.

Figure 9A: Average length of stay for elective lower limb angioplasty procedures (diabetic patients) by provider and provider type, HES 01-Apr-2014 to 31-Mar-2015

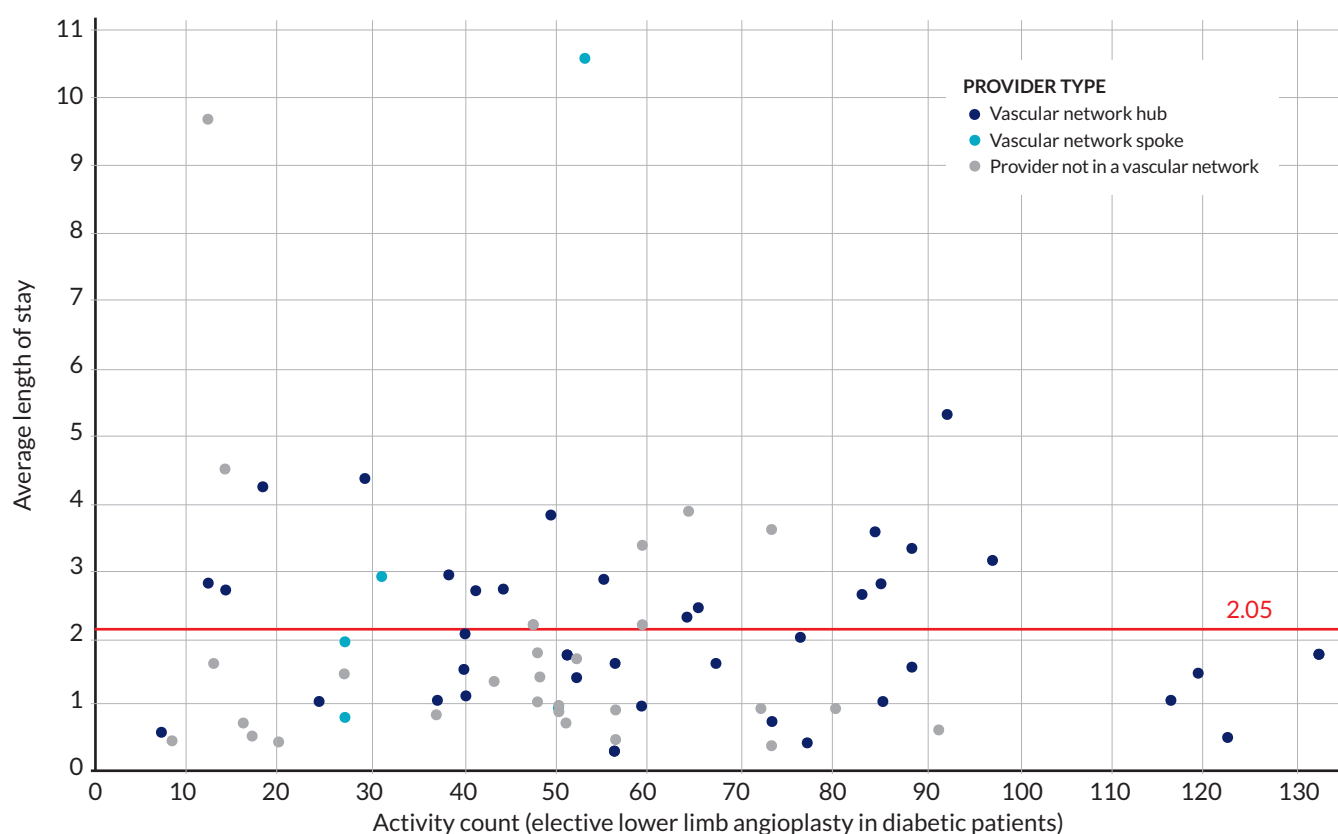
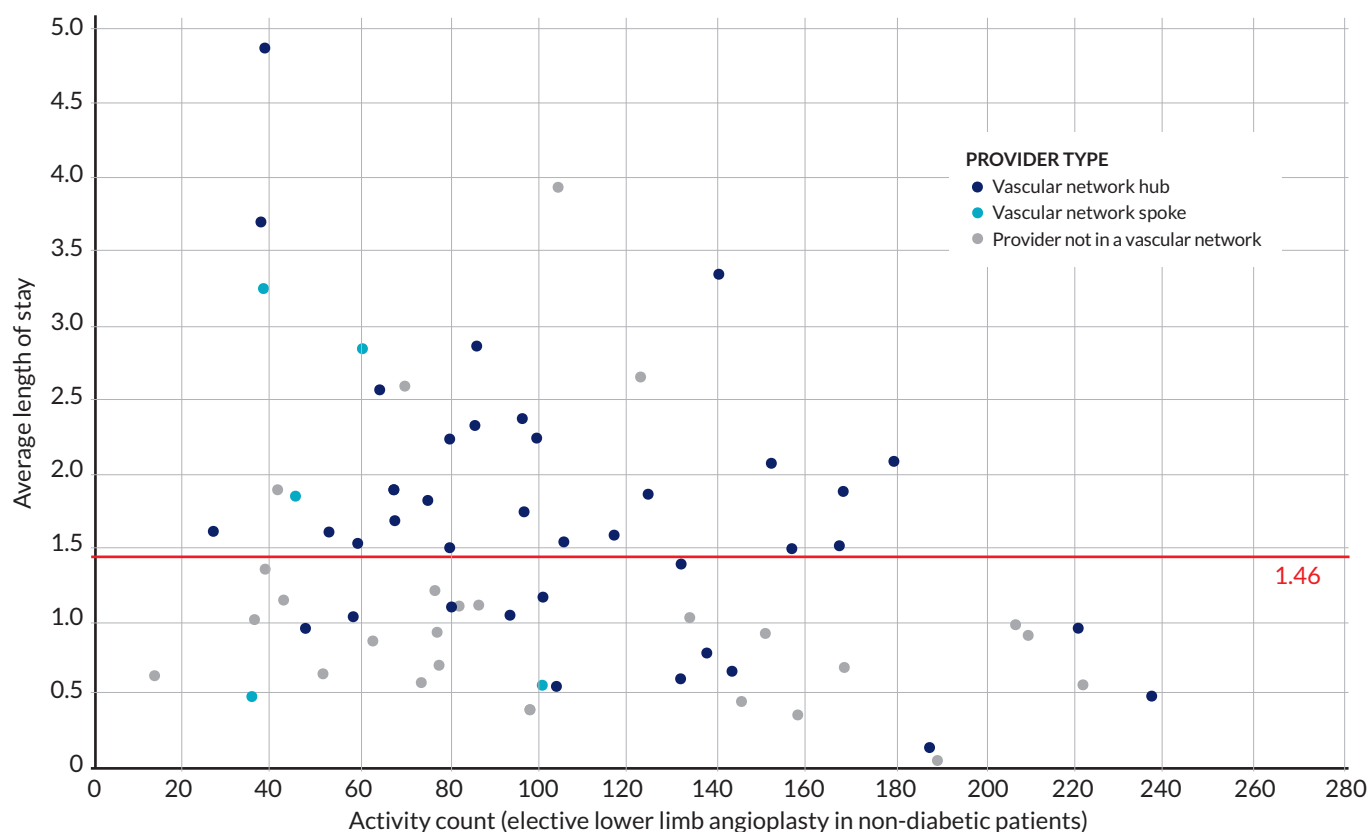


Figure 9B: Average length of stay for elective lower limb angioplasty procedures (non-diabetic patients) by provider and provider type, HES 01-Apr-2014 to 31-Mar-2015



This is a further complicating factor for vascular patients; as stated earlier, many are very frail and have multiple co-morbidities that need careful peri-operative management

Allowing for the fact that length of stay is affected by a range of issues, it is clear that there is substantial variation between units in length of stay for patients undergoing the same procedure. Around 35% of hospitals – including those who conduct the highest number of such procedures – typically undertake lower limb angioplasty as a day case. However, there are some providers who keep patients in for three or more days on average. One provider averages a length of stay of almost five days for lower limb angioplasty on non-diabetic patients and a different provider averages a length of stay in excess of 10 days for diabetic patients.

For bypasses, the variation is more extreme still, with a small number averaging less than five days but many providers keeping patients in for at least 10 days.

For lower leg angioplasty or bypass for peripheral arterial disease, if all providers with an average length of stay that is longer than the national average reduced length of stay to the national average, some 10,025 inpatient bed days a year could be released with a financial saving of £3 million a year – incentive enough to consider initiatives to reduce length of stay.

Addressing the causes of variation

During the visits, providers at both ends of the spectrum were asked about the average length of stay and this revealed some important considerations.

Discussions with those providers that manage a high percentage of surgery as day cases showed that many have shaped their service to allow more patients to be admitted on the day of surgery, and avoid the need to admit the day before. This is beneficial to patients and also delivers cost savings.

In practical terms, this typically involves the development of a dedicated admissions unit, tasked with checking the patients are ready for surgery, completing paperwork and generally preparing them on the day to prevent delay in starting the operating list. Many units already operate in this way and it clearly enables them to complete more procedures as day cases.

Not all vascular patients can be treated as day cases; for example, patients needing a CEA may well be in hospital following a stroke. In general, as emphasised throughout this report, many vascular surgery patients are frail and have multiple co-morbidities. Often, these need to be managed before surgery, to ensure the patient is sufficiently well to undergo what will often be a debilitating procedure. This requires planning the patient's recovery and discharge and ensuring there will be sufficient relevant support available post-surgery.

This will require the involvement of other clinical teams – such as cardiology, pulmonary diabetic and renal specialists and, in terms of discharge planning, physiotherapy and even community health and social care. However, according to GIRFT visits, this is often a cause of delay in the process, with very ill patients being kept in hospital before surgery awaiting the input of other teams.

Essentially, it appears that care is often not effectively integrated; each department has its own workload and priorities, and these are not managed together. To reduce the average length of stay for vascular patients, cross-departmental referral pathways need to be developed, with agreed and achievable timescales. In a true hub-and-spoke network, where hubs are managing many more such procedures and patients, the incentive to integrate will be greater.

The same issues apply post-surgery, with evidence from visits indicating that patients are sometimes kept in hospital for longer periods due to a lack (or perceived lack) of adequate care post-discharge. Vascular teams may be concerned about both the availability of outpatient care, including whether or not the patient could have an appointment at a nearby spoke hospital within a few days of surgery and, where the patient has co-morbidities that need managing, about support from other disciplines.

In general, feedback and observations from the GIRFT visits would suggest that where providers have introduced physician management of patient co-morbidity into the vascular service, outcomes, length of stay and re-admissions have improved.

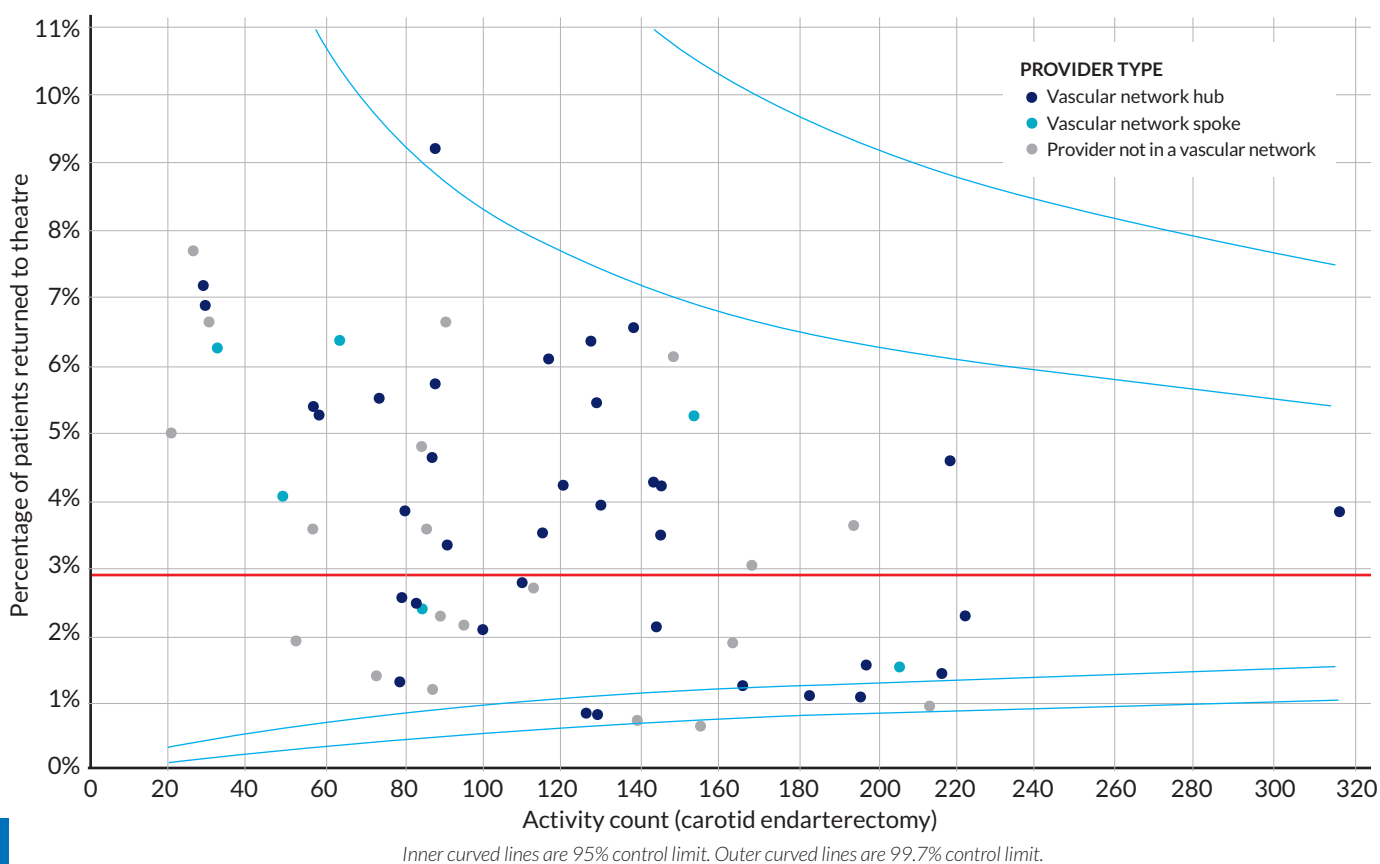
Finally, during the GIRFT visits, some providers indicated that longer stays could, in part, be an inadvertent result of a funding issue. Current rules mean that where a provider readmits a patient as an emergency within 30 days of surgery, the provider may face a financial consequence. To try and mitigate this risk, some units may have kept patients in under observation for longer than clinically necessary. For all sorts of reasons, this would not be desirable: it means valuable vascular resources would be being used to monitor patients that may not need monitoring or additional care, while others in need of surgery might have to wait for a bed to be free. The extent to which this issue is material is unclear. As providers work to reduce length of stay, GIRFT hubs will be aware of this possible barrier to improvement. Where the issue appears to be material, this should be discussed with commissioners with a view to mitigating it.

| Recommendation | Actions | Timeline |
|---|---|---|
| 8. Improve prehabilitation for AAA, PVD and CEA, particularly with regards to perioperative medical input.* | 8A: Clinicians and providers to improve use of multidisciplinary prehabilitation using known best practice. | For delivery by July 2018. |
| | 8B: GIRFT to inform NICE of proposed changes to practice linked to this recommendation for consideration in development of NICE Guideline Abdominal aortic aneurysm: diagnosis and management. | For delivery within NICE's Guideline development process. |
| | 8C: NHSE Specialised Commissioning to review AAAQIF with a view to promoting consistency in prehabilitation. | To be agreed with NHSE Specialised Commissioning. |
| | 8D: GIRFT Regional Hubs to identify cases in which the 30-day readmissions rule appears to be contributing to increased length of stay and discuss with commissioners and providers a possible review of thresholds. GIRFT to inform NHSI and NHSE pricing teams of any evidence emerging. | On-going, throughout GIRFT implementation. |
| | 8E: GIRFT to add relevant existing guidance to the GIRFT Good Practice Manual, as well as any case studies it identifies. | On-going, throughout GIRFT implementation. |
| | *To clarify, implementation of this recommendation will be aided by the GIRFT Anaesthesia and perioperative medicine workstream, which may provide further recommendations on prehabilitation. | |

Return to theatre

A further factor that can influence length of stay is the need for patients to return to theatre. Given the fact that vascular patients are typically very frail, it is to be expected that return to theatre may be higher than in some other surgical specialties. However, the variation found in return to theatre rates across different units indicates this is not simply a standard risk.

Figure 10: Percentage of patients who return to theatre during the inpatient spell of a CEA procedure by provider and provider type, NVR 01-Jan-2014 to 31-Dec-2014



As can be seen, there are a larger number of trusts where over 5% of patients return to theatre and one where the figure is as high as 9%. By contrast, there are several under 1% with eight reporting no returns to theatre.

For AAA repair, the variation is if anything broader still, though as noted above there are some providers who deliberately conduct a staged second look operation repair for open surgery.

The variation needs to be examined and that should start locally. Trusts should review all returns to surgery at vascular mortality and morbidity meetings to identify whether there are common factors and address any issues of quality, whether during surgery itself or post-operative care.

Variation in emergency readmissions

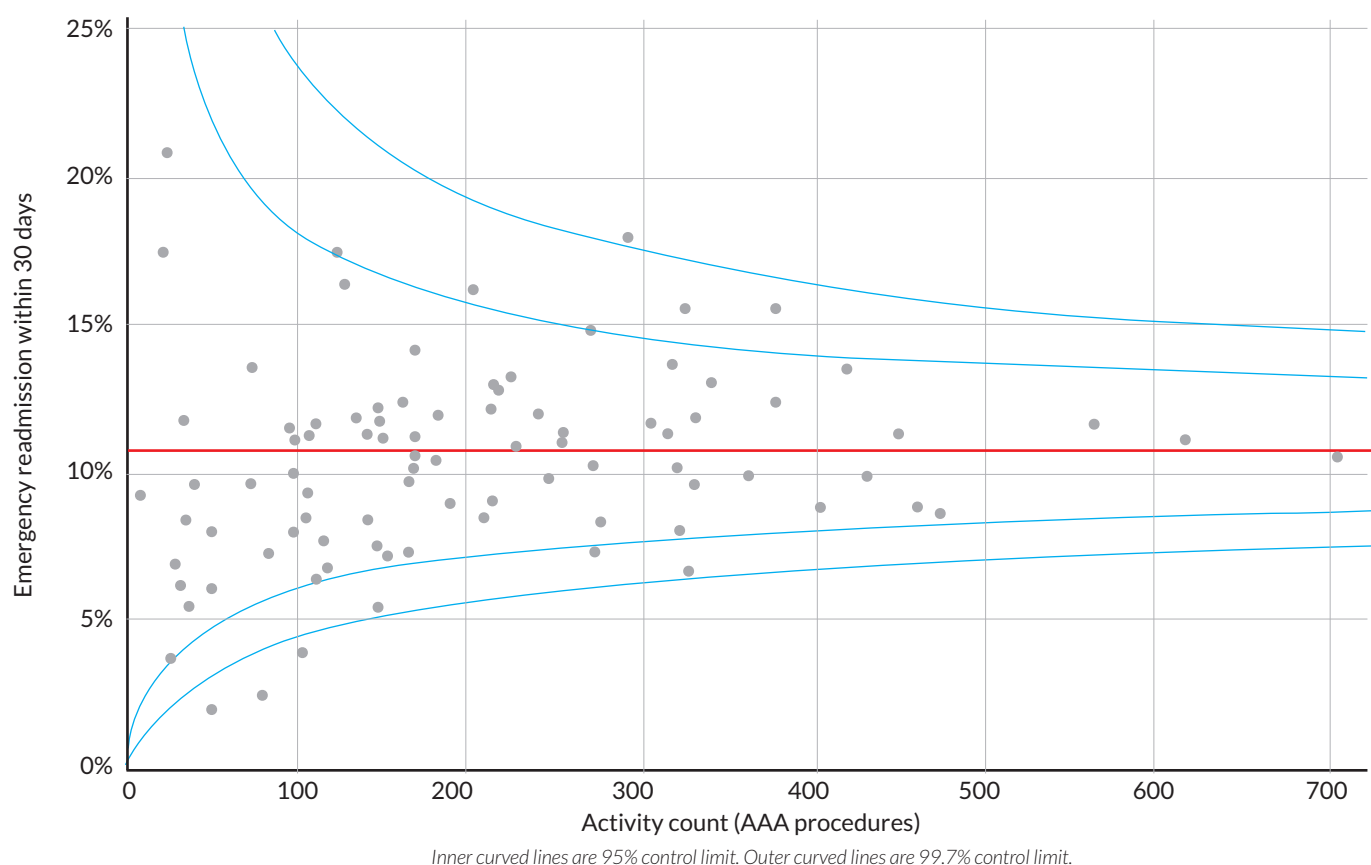
Some of the factors considered around returns to surgery clearly apply to readmissions too.

In general, readmissions following vascular surgery are high compared to many other surgical disciplines: approximately 10% of AAA patients are readmitted to hospital for any emergency reason within 30 days, as are approximately 8% of CEA patients and 16.5% of patients who underwent a major amputation for lower limb vascular disease.

Most emergency readmissions are a consequence of performing surgery on patients who are frail and have multiple co-morbidities. The importance of good perioperative care was raised frequently in GIRFT visits, is well understood by vascular surgeons, and can be addressed immediately. Future GIRFT workstreams, in particular the intensive and critical care and the anaesthesia and perioperative medicine workstreams, will support vascular surgeons to improve perioperative care for patients.

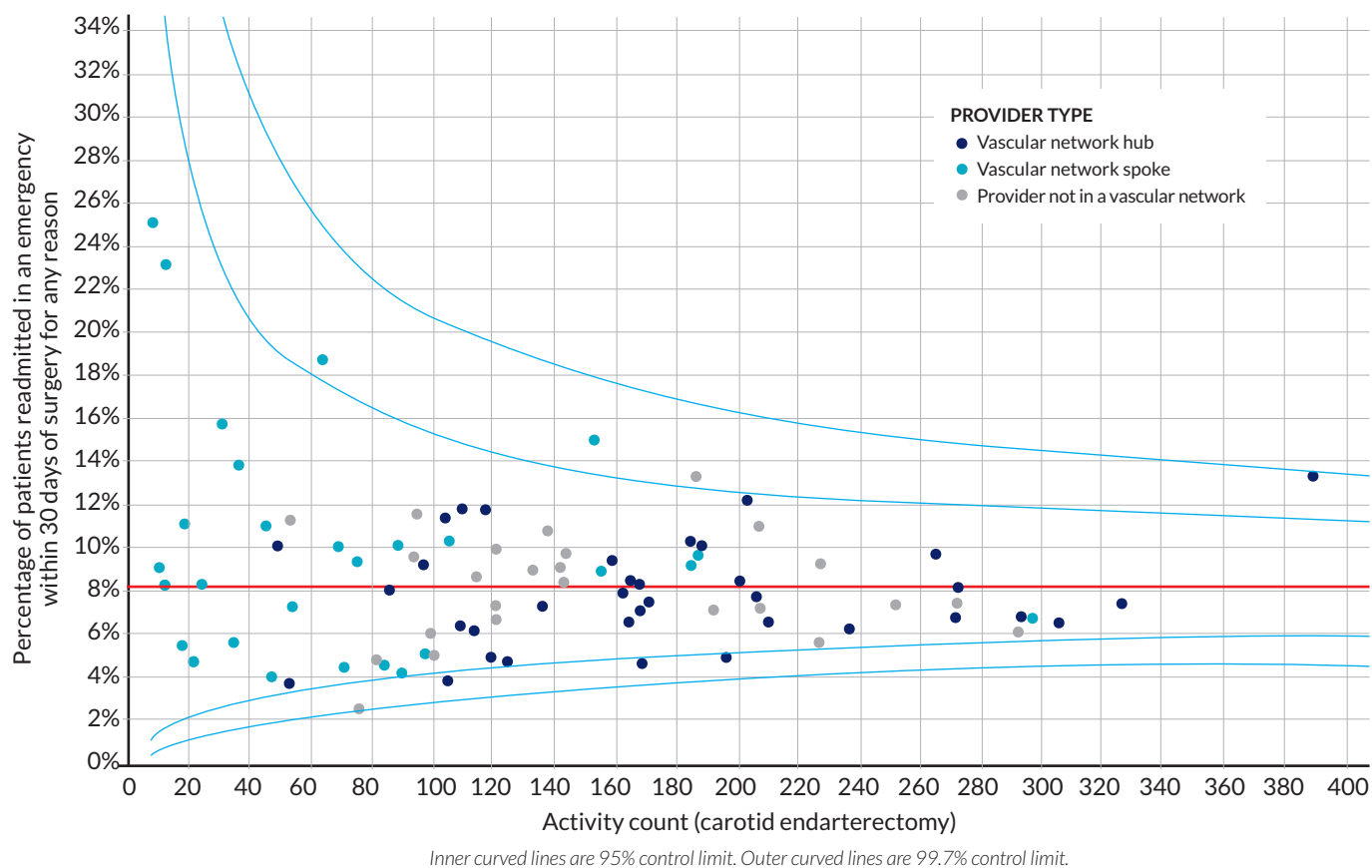
Even allowing for these factors, the variation in emergency readmissions is surprisingly broad. For AAA, the trust percentages range from below 5% to above 20%.

Figure 11: Percentage of patients readmitted in an emergency within 30 days following an AAA procedure by provider, HES initial admission 01-Apr-2012 to 31-Dec-2014



For CEA, the variation between trusts was also extensive, ranging upwards from 2%.

Figure 12: Percentage of patients readmitted in an emergency within 30 days for any reason following a CEA procedure by provider and provider type, HES initial admission 01-Apr-2012 to 31-Dec-2014



Following major lower limb amputation, the average 30-day readmission rate for any reason is 16.5%. Further investigation is needed to understand the factors underlying the variation.

Overall, across all vascular procedures considered in this report, if all providers with above-average readmission rates improved to reach the national mean, some 160 readmissions a year would be avoided.

Understanding emergency readmissions

There might be a link between the choice of procedure and the frequency of readmissions. Yet the data gathered to date does not support this; nationally, 10% of patients who underwent open repair for AAA were readmitted in an emergency within 30 days, compared to 11% of those who underwent EVAR.

The views expressed during the GIRFT visits indicated that a high percentage of readmissions are due to non-surgical complications, usually related to co-morbidities. It should be possible to reduce these readmissions substantially, through better post-operative support and discharge planning, involving other disciplines as well as the vascular team. Physiotherapy in particular can be invaluable here, as can home care, to support frail and elderly patients in their recovery. In general, it is often clear which patients are at greatest risk of readmission; it should be possible to provide such patients with a greater level of support, rather than providing a 'standard' level for all.

As indicated above, where surgical work is concentrated in hubs, it may be easier to achieve this multidisciplinary approach, while the role of spokes in providing outpatient services and early post-operative monitoring is equally key.

| Recommendation | Actions | Timeline |
|--|--|--|
| 9. Reduce avoidable readmissions by improving perioperative care and follow up*. | 9A: Clinicians and trust management to ensure close liaison with medical specialties and seven-day physiotherapy, as part of multidisciplinary package of enhanced recovery. | For delivery by July 2018. |
| | 9B: Clinicians and trusts to ensure early post-operative contact with patients, as well as readily available emergency contact information and outpatient clinics for patients with concerns. | For delivery by July 2018. |
| | 9C: GIRFT to add existing guidance relevant to the GIRFT Good Practice Manual, as well as any case studies it identifies. | Ongoing, until business as usual. |
| | 9D: NHSI Operational Productivity Clinical Productivity sub-programme to reflect recommendation in any guidance products, seeking further GIRFT Clinical Lead input as necessary. | To be considered within Clinical Productivity sub-programme. |
| | *To clarify, implementation of this recommendation will be aided by the GIRFT anaesthesia and perioperative medicine workstream, which may provide further recommendations on prehabilitation. | |

Improving data collection to improve our understanding

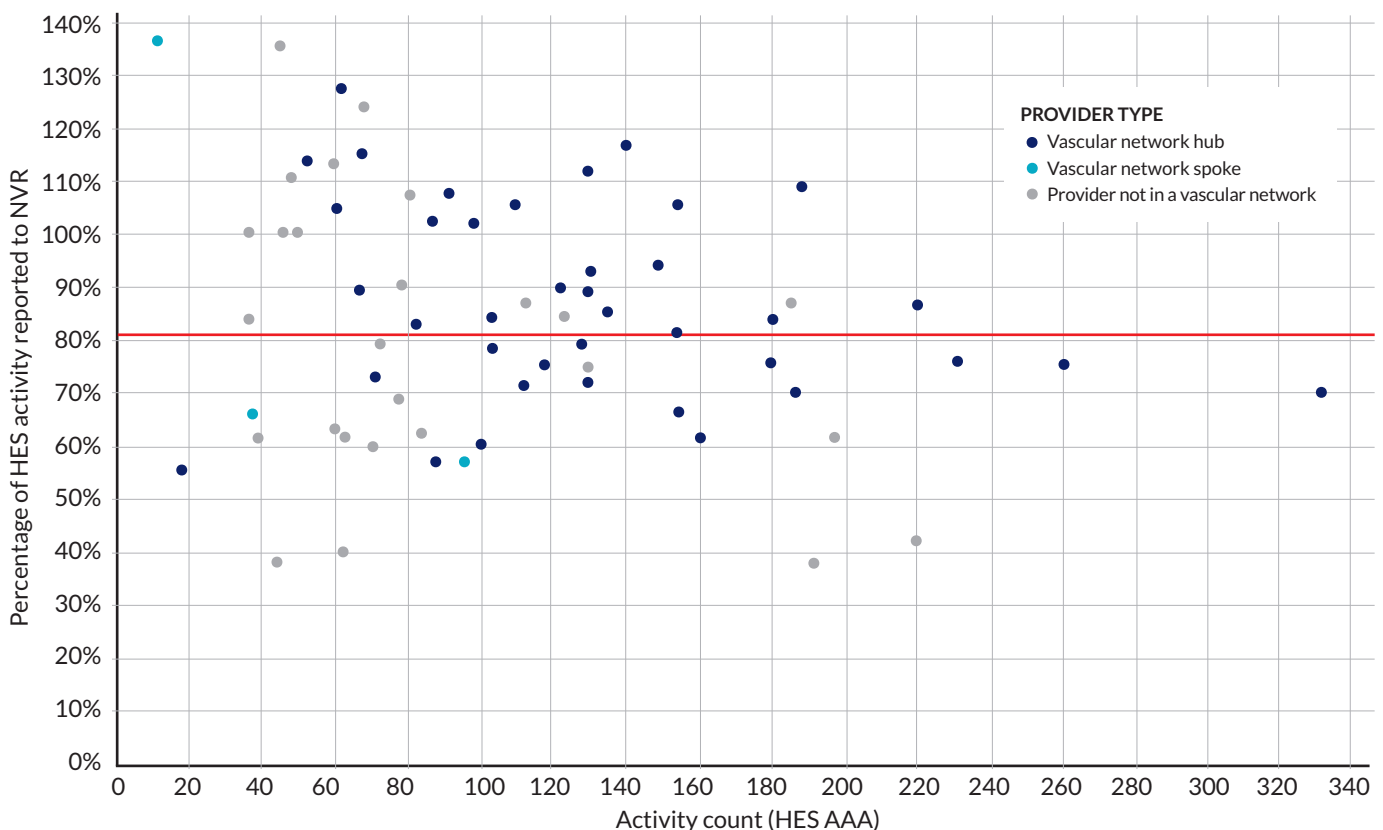
The National Vascular Registry (NVR) has been a major asset to vascular surgery since it was originally established as the National Vascular Database by the Vascular Society. It provides an annual snapshot of the vascular surgery workload and how it is changing; it has been a crucial source of information for this report, particularly about procedure choice. However, the GIRFT process has also served to highlight the limitations of the NVR – particularly when NVR data is compared to the other key source of data used by the GIRFT team, Hospital Episode Statistics (HES).

The two datasets do not match. There are sizable differences in the number of procedures recorded in each, with the NVR suggesting that some vascular surgery teams are conducting many more procedures each year than are shown in HES. This means providers may not have an accurate view of activity levels, which may make it more difficult to effectively plan and improve services.

The NVR is already a major asset to the profession and the data gathered within it can be put to real use – the GIRFT programme being just one example. However, clinicians, clerks and others responsible for the data entry must do more to improve recording of procedures in both NVR and HES.

Perhaps the simplest demonstration of this relates to case ascertainment for the NVR. For AAA repair, recorded case ascertainment rates vary between 0% - in two providers with low activity levels who appear simply not to record this at all – to several providers with rates well over 100%. This may indicate: (1) duplicate recording of procedures in the NVR, or failure to record procedures in HES; (2) poor recording of procedures in NVR; or (3) poor selection of OPCS (procedures) codes either by hospital coders or the GIRFT analyst team. The mean level is just over 80%, suggesting that at least one in five AAA procedures is undertaken with no record in the NVR.

Figure 13: Case ascertainment rate, all AAA procedures by provider and provider type, NVR and HES 01-Jan-2014 to 31-Dec-2014



The variation in case ascertainment rates is even more striking for lower limb revascularisation. Average case ascertainment rates for bypass procedures are around 55% and, for lower limb angioplasty, just four providers have a case ascertainment rate over 60% with a majority under 10%.

Figure 14A: Case ascertainment rate for all lower limb bypass revascularisation procedures by provider and provider type, NVR and HES 01-Jan-2014 to 31-Dec-2014

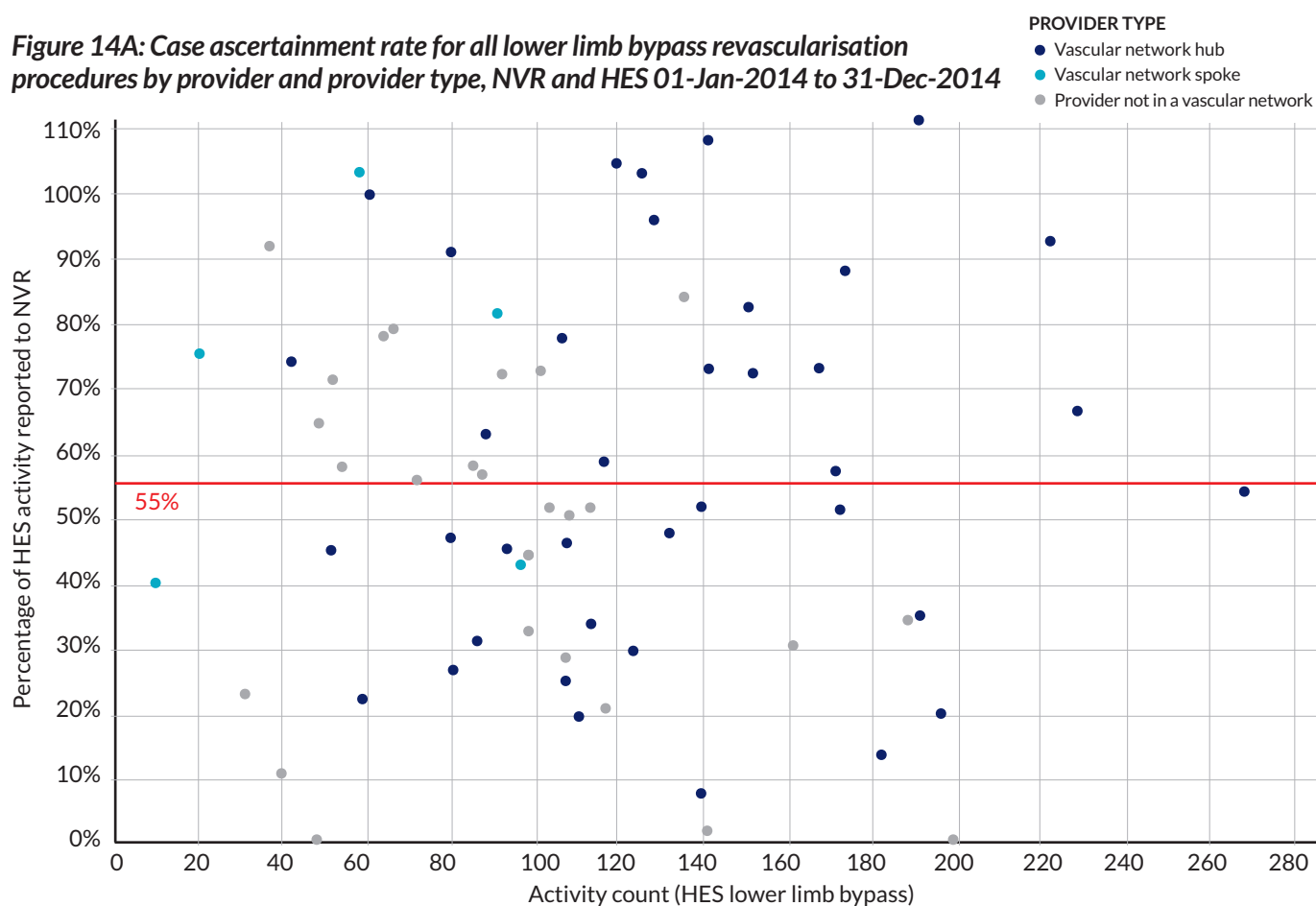
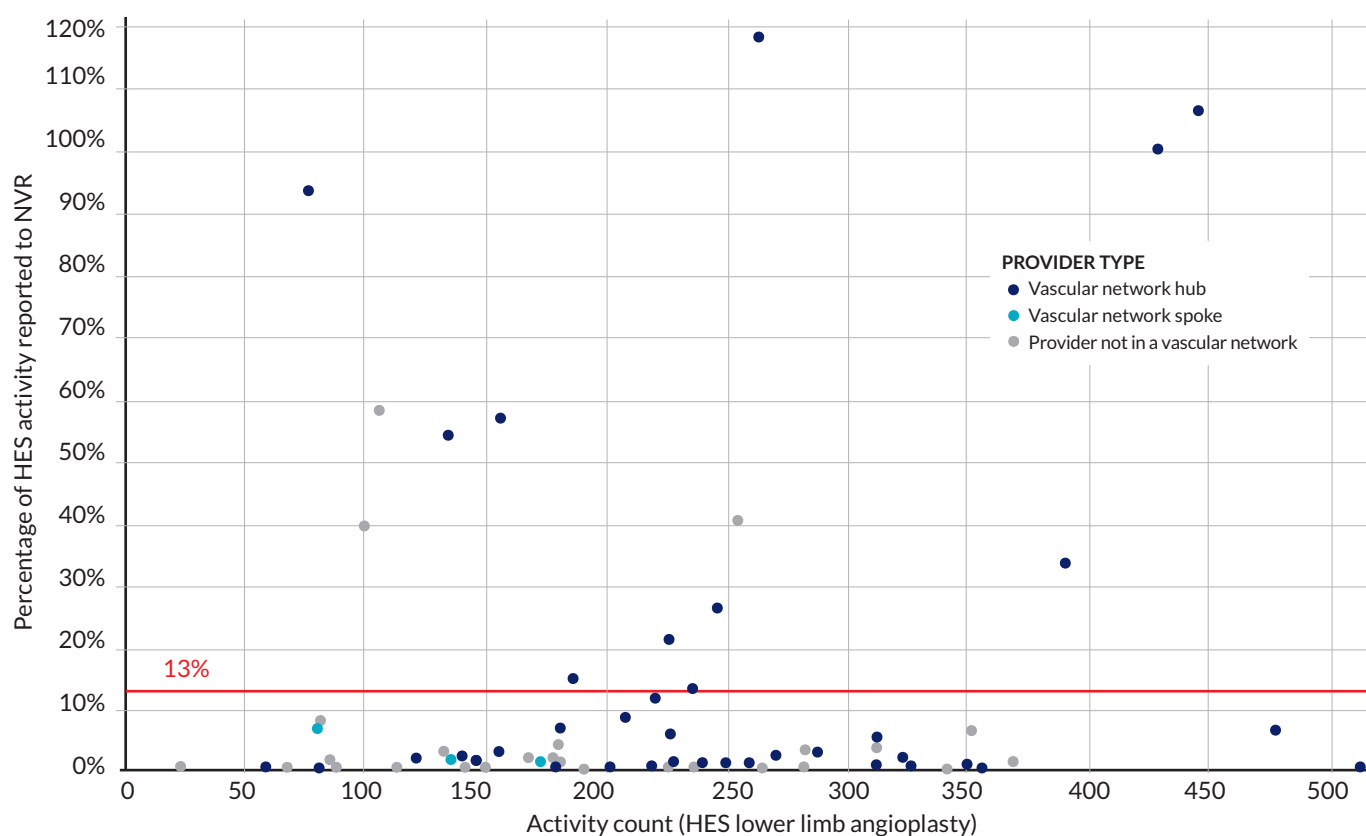


Figure 14B: Case ascertainment rate for all lower limb angioplasty revascularisations by provider and provider type, NVR and HES 01-Jan-2014 to 31-Dec-2014



In 2014 recording of major and minor amputations in NVR was poor.

In addition to the recording of procedures within the NVR, we support substantial improvement of recording of the Fontaine score⁸ against lower limb admission records in the NVR. This score classifies the level of pain patients are experiencing and whether this has progressed to skin destruction, ulceration and/or gangrene. Improved recording of this score would aid analysis of the need to amputate and potentially lead to more consistent clinical decision-making.

Figure 15A: Case ascertainment rate for all major lower limb amputation procedures by provider and provider type, NVR and HES 01-Jan-2014 to 31-Dec-2014

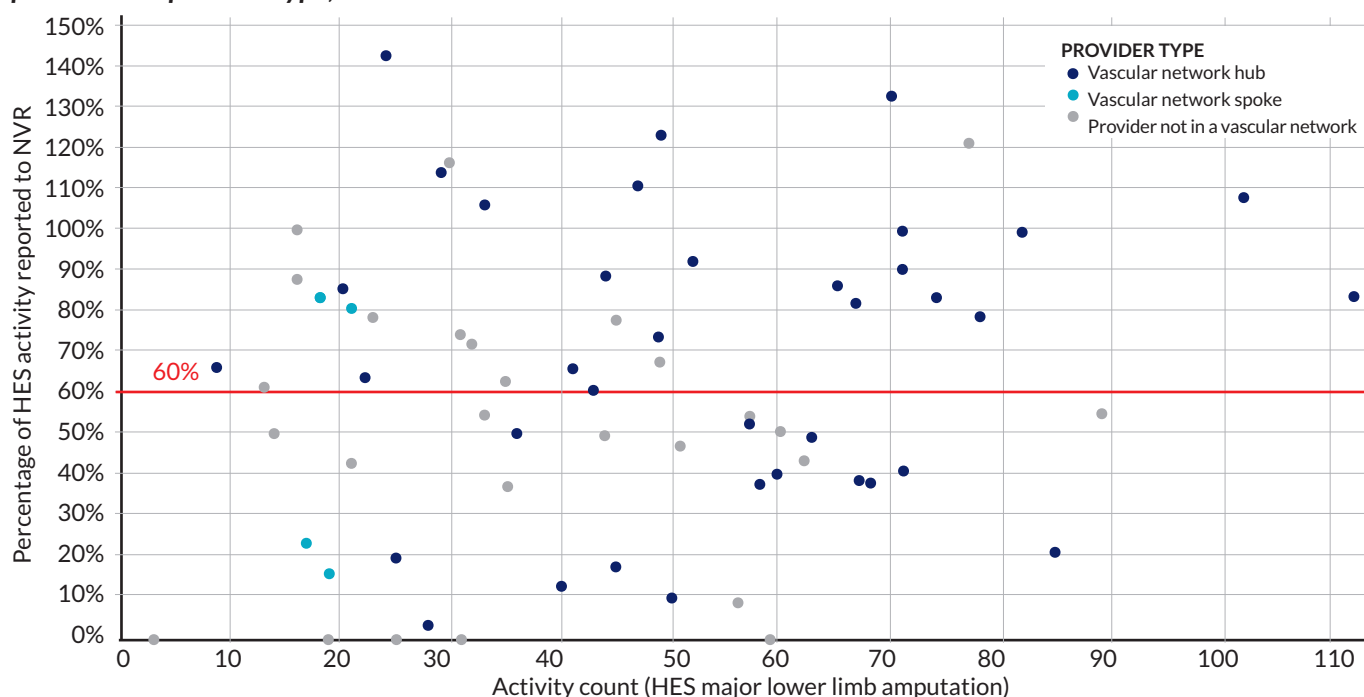
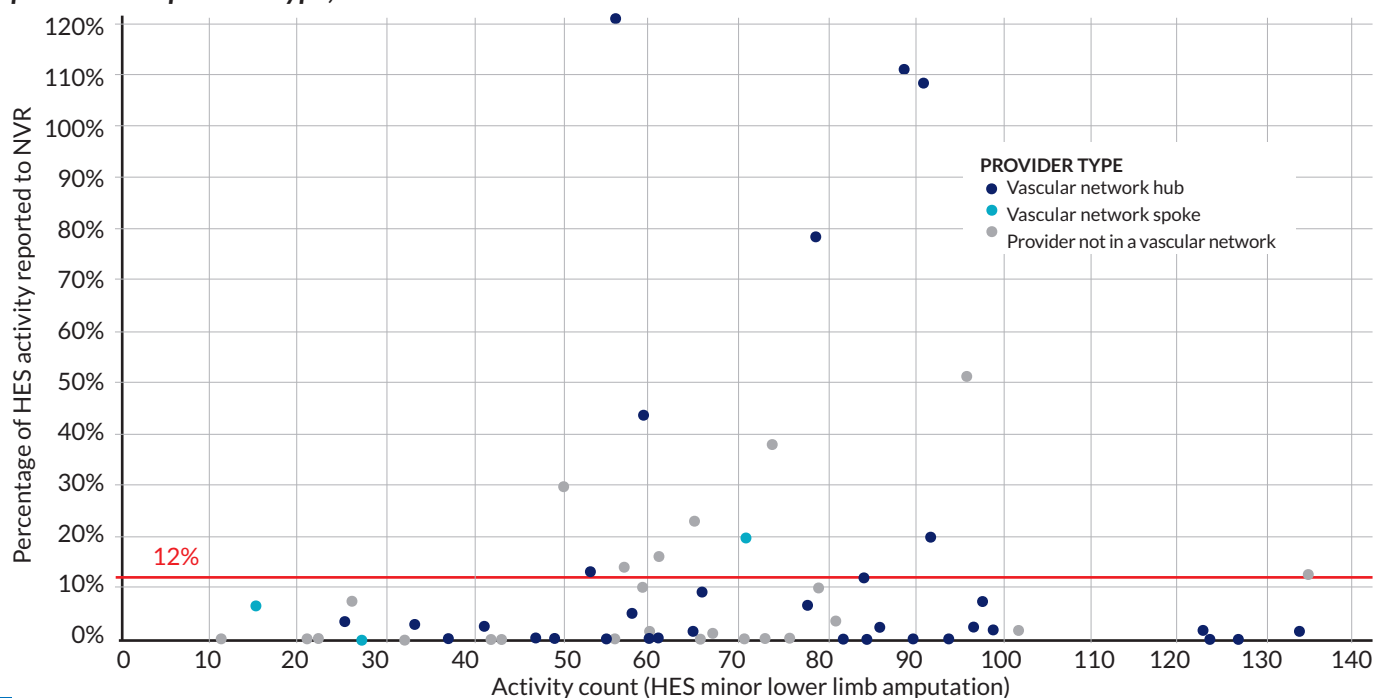
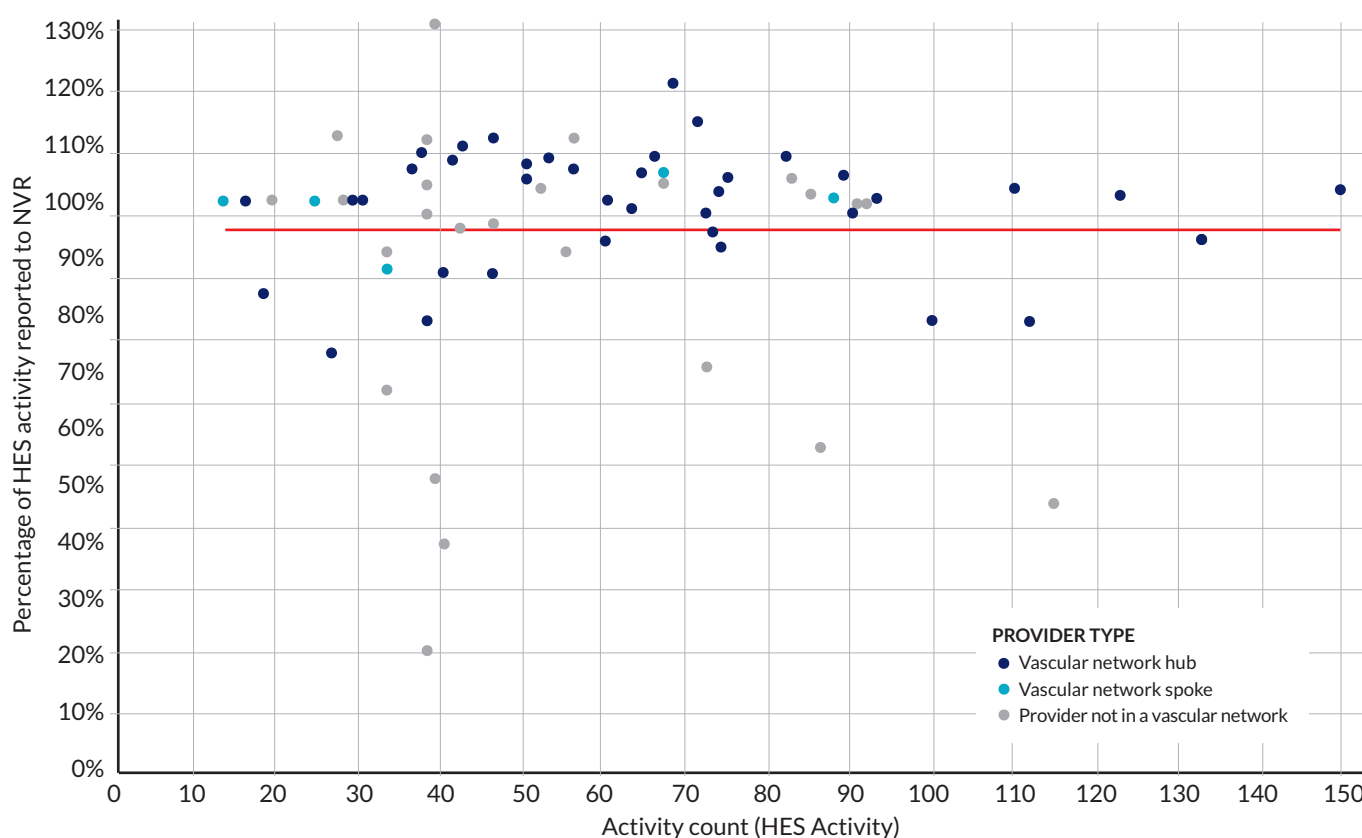


Figure 15B: Case ascertainment rate for all minor lower limb amputation procedures by provider and provider type, NVR and HES 01-Jan-2014 to 31-Dec-2014



The recording of lower limb procedures in the NVR compares starkly with the third core pathway, CEA, where the national average ascertainment rate is around 96%.

Figure 16: Case ascertainment rate for all CEA procedures by provider and network status, NVR and HES 01-Jan-2014 to 31-Dec-2014



Explanations for poor data quality

Ultimately a cultural shift is needed; one that places increased value on the importance of record keeping. This report makes recommendations for clarifying responsibilities around data collection to make the NVR and HES more valuable resources for commissioners and clinicians.

| Recommendation | Actions | Timeline |
|--|---|---|
| 10. Ensure case ascertainment of the National Vascular Registry to HES reaches 85% for AAA, CEA and lower limb revascularisation and amputation procedures. | 10A: Trusts to improve data recording to the National Vascular Registry and HES to achieve case ascertainment of at least 85%. 10B: NHSE Specialised Commissioning to consider use of Information Breach, or alternatively a Data Quality Improvement Plan to encourage delivery of 10A. | For delivery by July 2018. To be agreed with NHSE Specialised Commissioning. |

| Recommendation | Actions | Timeline |
|--|--|--|
| 11. Improve quality of routine data entry and collection. | 11A: GIRFT and NVR to consider providing guidance on the coding and recording of complex aneurysms, and the definition of elective/emergency or planned/urgent with respect to vascular surgery procedures. | For immediate discussion, with any action delivered subject to agreement, by January 2020. |
| | 11B: GIRFT to discuss with the NVR a change to the post-surgical destination data item to include enhanced ward-level care | As above |
| | 11C: Trusts and surgeons to improve recording of the Fontaine classification in the NVR, as a standard clinical scale for lower limb ischaemia. | For delivery by July 2018. |

| Recommendation | Actions | Timeline |
|---|--|--|
| 12. Improve coding for complex aneurysms and emergency vascular surgical activity. | 12A: Surgeons to meet with trust information teams to implement changes to coding practice which would provide improved clinical accuracy as defined by NVR and GIRFT. | For completion by April 2018. |
| | 12B: Trusts to agree any proposed changes internally with a view to any change impacting on NHS Standard Contract service conditions on the counting and coding of activity, being proposed to commissioners. | For completion by July 2018. |
| | 12C: If and once agreed with commissioners, trusts to implement any change. | To a timeline defined in accordance with the NHS Standard Contract. |
| | 12D: Surgeons to meet trust information team and coders and review activity attributed to them once a month. | For continual action, co-ordinated with 12A to C as agreed locally. |
| | 12E: Trust management to facilitate time for surgeon and coder engagement, using job planning if needed. | For completion by July 2018 |
| | 12F: GIRFT to consider development of guidance, consistent with existing coding guidance, to support improved collaboration between coders and surgeons. | For immediate consideration, for any guidance to be developed by January 2020. |

One particular gap in the data around vascular surgery relates to patient experience. The Friends and Family Test (FFT), a standard measure across all NHS care, is vastly underused in vascular surgery. As a first step, providers could simply consider how they could increase their response rates, where it appears low.

However, it is also recognised that the FFT is a measure of overall experience and was not designed to support clinically led improvements. As a result, it does not record the patient's condition, nor the procedure they underwent. Further consideration is needed around how best to capture insight on patient experience to support improvements to clinical care.

| Recommendation | Actions | Timeline |
|---|--|---|
| 13. Improve insight into patient experience in vascular services, to support clinically led improvement. | 13A: Vascular surgery providers to review their FFT response rates and, where response rate appears low, use suggestions in FFT guidance to improve rate. | For continual action. |
| | 13B: GIRFT to work with other national bodies to consider how best to gather and apply insights on patient experience to support improvements in clinical care – including by engaging with on-going work on FFT. | On-going, as agreed with national bodies, until January 2020. |
| | 13C: NHSE Specialised Commissioning to seek GIRFT Clinical Lead involvement in its work on Patient Reported Outcome Measures and Patient Reported Experience Measures. | To be agreed with NHSE Specialised Commissioning. |

Better data to inform surgeon appraisal

Finally, there is another key use of data that needs to be considered: data about individual surgeon performance. At present – as was raised in the GIRFT report into General Surgery – once qualified, surgeons are generally left to manage their own professional development. Whilst the majority of surgeons are both conscientious and professionally curious, studying new approaches through journals and conferences, the current model can mean surgeons not keeping abreast of developments in their specialist field.

Data about the activity each surgeon conducts – in particular, the number of procedures they carry out and the procedural choices they make (e.g. EVAR or open surgery) – can help identify if surgeons appear to favour one method over another. While that in itself is not ‘wrong’, with different surgeons having different areas of expertise, it may also reflect a lack of knowledge or experience in a different method. Data about outcomes can also indicate a development need.

The NVR gathers such data; it seems a logical step therefore to use NVR data routinely at appraisal, to support professional development.

| Recommendation | Actions | Timeline |
|--|--|--|
| 14. Require at appraisal surgeon-level intelligence on activity and outcomes. | 14A: Trust management to ensure all appraisals are informed by best quality data. | Substantial progress to have been made by July 2018. |

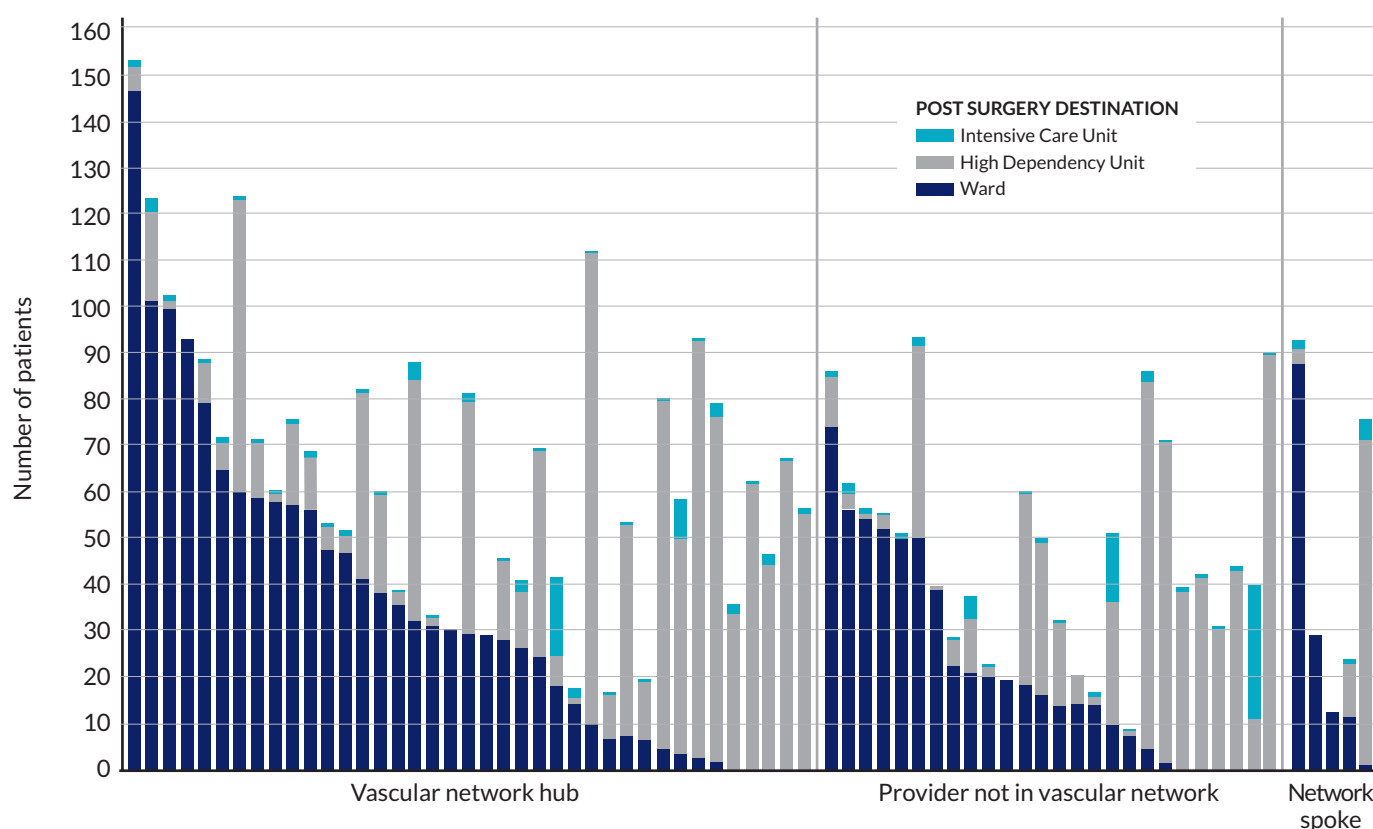
Increasing consistency and reducing costs in procurement

One of the core questions posed to GIRFT teams is whether there are opportunities to find efficiency savings in their area of practice. As part of this, teams examine the comparative costs incurred by different units in conducting the same or similar procedures. While some variation in these costs is expected, the data for vascular surgery has revealed substantial variation – which does not correlate with variation in outcomes. Put another way, some units are conducting the same or similar procedures, but are spending less to do so. It is in all of our interests to learn from this.

As noted earlier, the GIRFT process identified substantial variation in the costs of EVAR procedures to address AAA: for elective procedures reported costs ranged from £2,251 to £19,690, while for non-elective procedures the range was between £4,000 and £16,050⁹. Preliminary enquiries have not been able to establish the cause of this variation, so further investigation is needed.

Costs reported by trusts for CEA vary between £2,150 and £8,250. The GIRFT team were able to identify that where patients recover after surgery can have a substantial impact on costs. Some units routinely send CEA patients to the HDU or ICU after surgery, while others return them all to vascular wards with enhanced nursing staff numbers.

Figure 17: Patient count by post-surgical destination type post CEA procedure by provider, NVR 01-Jan-2014 to 31-Dec-2014



The available evidence suggests that – unless the patient requires the additional resources that may be available in HDU or ICU – there is no clinical benefit to recovery there as opposed to in the ward. Moreover, insights derived from the GIRFT visits indicated that patients are often more comfortable and happier in the vascular ward, especially if they already know members of the nursing team there. Whilst the system is under significant pressure to adequately staff wards and theatres with sufficiently expert nursing and AHP staff, a majority cohort of patients would be better served in terms of experience and outcome, in dedicated vascular beds with specialist vascular nurses.

One study indicated that care on an HDU is double the cost of enhanced care on a ward, and in ICU the figure is higher still. While clearly post-surgical recovery destination reflects a range of factors, from the patient's overall health and wellbeing to the availability of beds in different locations, this study suggests that recovery on an enhanced ward is a more cost-effective option.

| Recommendation | Actions | Timeline |
|--|--|--|
| 15. Increase use of ward-based recovery to a level of approximately 90%.* | 15A: Trusts to assess needs for enhanced nursing numbers and medical input on ward to deliver this recommendation. | As required, to meet timeline for 15B. |
| | 15B: Trusts to recover patients to the ward, unless contraindicated, or where nursing and medical input cannot be achieved on the ward. | Change to be established by July 2018. |
| | *this recommendation should be implemented in a risk-averse manner that is compliant with <i>safe staffing for nursing in adult inpatient wards in acute hospitals</i> ¹⁰ | |

Reducing procurement costs

The annual costs of procuring medical devices and consumables related to vascular surgery is over £40 million. Clearly, the devices and consumables are essential to surgical outcomes; however, available data demonstrates that there is significant variation in both the types of equipment used by different surgeons and in different locations, and in the prices trusts pay for what appear to be similar items.

Analysis shows that together the seventy trusts providing vascular surgery are buying stents and grafts from more than 130 different brands. Furthermore, they are working with 32 different suppliers in doing so.

Table 2: Examples of procurement variation in vascular surgery

| Device | Total Qty | Total Spend (£) | % of Total | National Price Variance (£) | Brand Count | Supplier Count |
|--------------------|---------------|--------------------|------------|-----------------------------|-------------|----------------|
| Grand Total | 33,153 | £32,032,301 | - | £5,375,123 | 135 | 32 |
| Stent Graft | 4,548 | £14,435,176 | 45.06% | £1,989,516 | 40 | 13 |
| Stent | 17,443 | £10,367,503 | 32.37% | £1,152,713 | 61 | 25 |
| Graft | 11,162 | £7,229,621 | 22.57% | £2,232,895 | 36 | 14 |

Unsurprisingly, this vast range of products then leads to considerable variation in price for ostensibly similar items: the national average cost for one brand of stent graft for AAA repair was £4,122.66, compared to £2,751.34 for a different brand. More significantly still, some providers paid substantially more per item than their peers. This variation was observed within the same geographical region, meaning that issues such as logistics should not have affected price.

Whilst there will always be a clinical need for using specific devices for certain patient indications, this data indicates there is clearly scope to reduce variation and streamline the supply chain, which will lead to aggregated volumes, reduced prices and lower inventories.

A preliminary assessment of the variation in prices and brands contained within the NHS Improvement Purchase Price Index and Benchmark (PPIB) data suggests that as much as £6.5m a year could be saved by improving procurement and supply chain efficiency within vascular surgery alone.

¹⁰ NICE (2014)

The key places to start will be the top ten suppliers, which account for 95% of the total spend, and the top ten brands, which account for around 50% of the total spend. However, there is also significant variation in the prices paid for lower-volume items.

In the coming months, the GIRFT team will be working with trusts to understand why this variation exists. Inherent in this question is the recognition that there will often be sound clinical reasons behind the choice of devices and of treatment methods, and that patient quality outcomes, product evidence and product innovation are key considerations alongside supply chain efficiency and best value. As part of this exercise, the GIRFT team will provide a curated Clinical Procurement Benchmarking and PPIB data-pack to trusts' Heads of Procurement for validation and feedback before any conclusions are drawn or more specific recommendations made.

For tariff excluded devices, NHS England is already seeking to reduce some of this variation through their High-Cost, Tariff-Excluded Devices (HCTED) programme, and GIRFT is committed to working closely with the HCTED team to develop standard specifications for these products.

The GIRFT team will also be working closely with NHS Improvement and the Department of Health to review the potential opportunities that new procurement or payment initiatives such as the Category Towers bring to vascular surgery.

| Recommendation | Actions | Timeline |
|--|--|----------------|
| 16. Enable improved procurement of devices and consumables through cost and pricing transparency, aggregation and consolidation, and the spreading of best practice. | 16A: GIRFT to work closely with sources of procurement data such as PPIB and relevant clinical data to identify optimum value for money procurement choices, considering both outcomes and cost/price. | July 2018 |
| | 16B: GIRFT to identify opportunities for improved value for money, including the development of benchmarks and specifications, and locate sources of best practice and procurement excellence, identifying factors that lead to the most favourable procurement outcomes. | September 2018 |
| | 16C: GIRFT to engage the NHS procurement community, including the new Category Towers and the HCTED programme, to develop commercial plans for supporting trusts and STPs to deliver the identified value for money opportunities. | October 2018 |

Reducing the impact of litigation

As well as looking at addressing variation in clinical practice, each of the GIRFT clinical workstreams has been asked to examine the impact and causes of litigation, with a view to reducing the number of incidents that lead to litigation

Data obtained from NHS Resolution shows that litigation claims following a vascular procedure are estimated to value between £26 and £41 million per year over the last five years. This means that the average cost of litigation per admission in the vascular surgery specialty was £128. However, if only major vascular surgery is included (i.e. AAA, CEA or lower limb revascularisation or amputation) then the average cost increases to £650 per admission, an unacceptably high level.

What’s more, there are vast differences between providers: the best performer pays an average of £0 per vascular admission, while at the other end of the scale, one provider has paid out an average of more than £868 per admission into the vascular surgery specialty. However, for major vascular surgery, the variation expands such that one provider’s litigation costs was estimated at £6,413 per admission.

Figure 18: Variation in vascular surgery estimated litigation costs per admission between English trusts, NHS Resolution (denominator includes day case, elective and emergency admission into the vascular surgery specialty for patients of all ages) 01-Apr-2012 to 01-Mar-2017

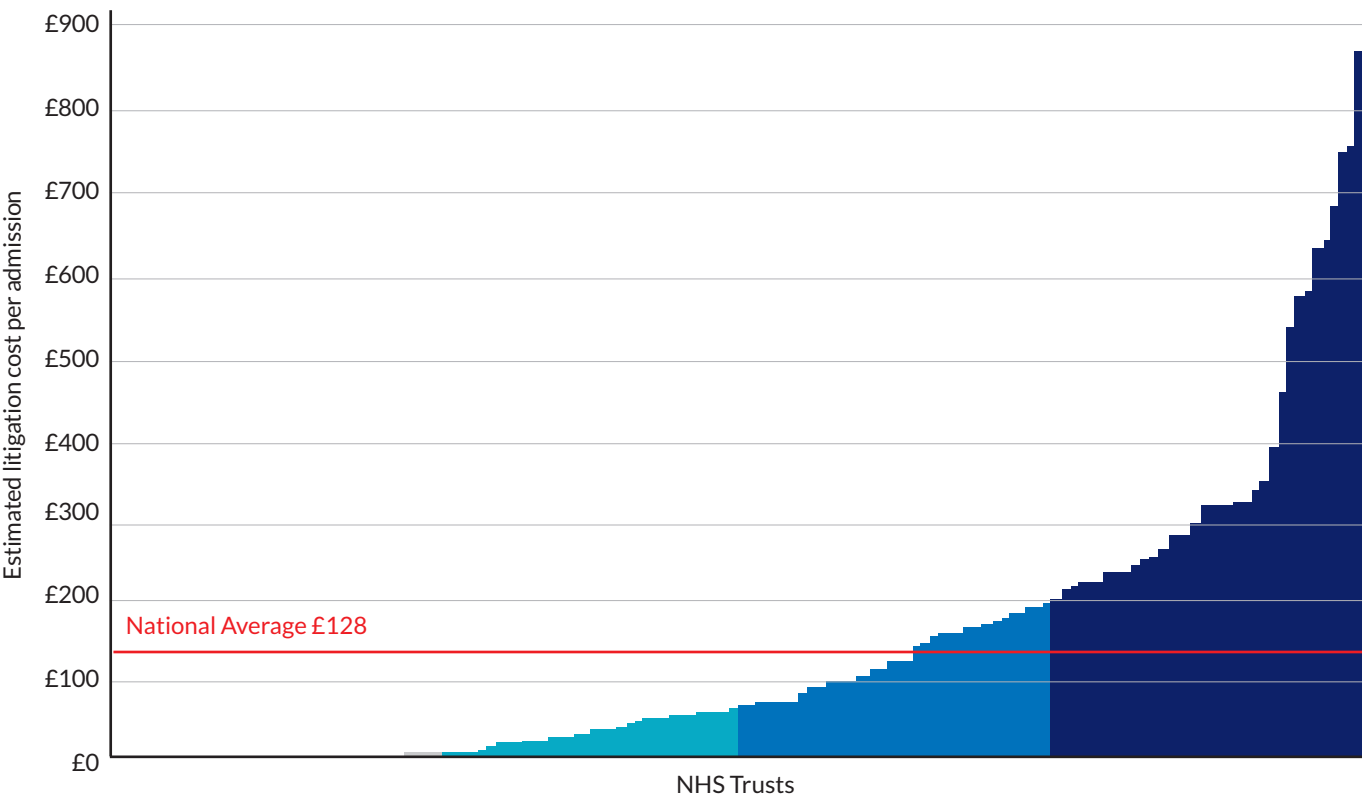
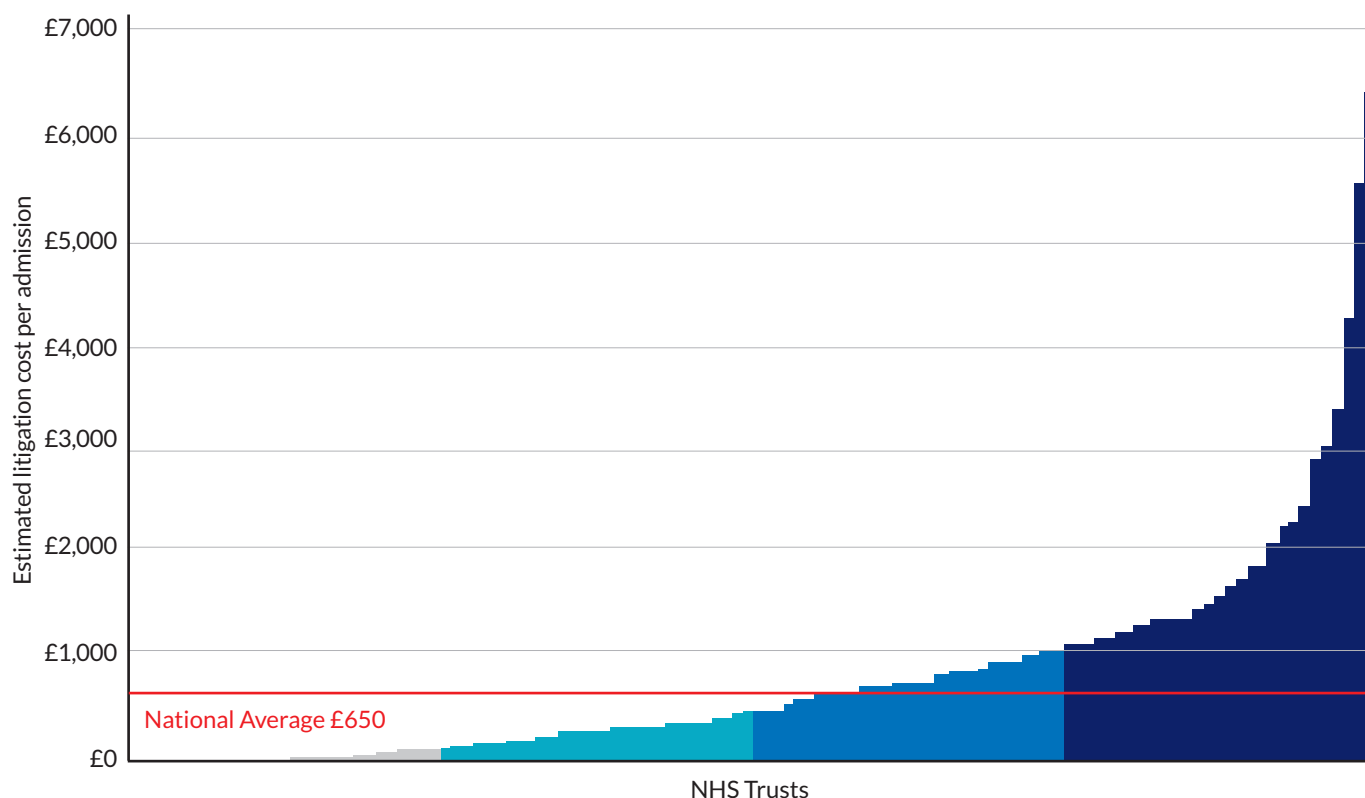


Figure 19: Variation in vascular surgery estimated litigation costs per admission between English trusts, NHS Resolution (denominator includes day case, elective and emergency admission for major vascular surgery [excluding varicose vein procedures] for patients of all ages) 01-Apr-2012 to 01-Mar-2017



The year-on-year data indicates that the number of claims is gradually increasing and the total costs remain high. As there has not been a corresponding increase in the number of procedures conducted each year, this indicates that incidents leading to litigation are becoming more common with an associated increase in financial pressure.

Table 3: Volume and cost of litigation claims within the vascular surgery specialty notified to NHS Resolution 01-Apr-2012 to 01-Mar-2017

| Year | No. of claims | % change in No. of claims | Estimated litigation costs (£) | % change in estimated cost |
|--------------|---------------|---------------------------|--------------------------------|----------------------------|
| 2012/13 | 96 | - | 26,030,317.12 | - |
| 2013/14 | 128 | 33.33 | 29,804,828.70 | 14.50 |
| 2014/15 | 114 | -10.94 | 40,911,522.04 | 37.26 |
| 2015/16 | 135 | 18.42 | 31,598,585.40 | -22.76 |
| 2016/17 | 140 | 3.70 | 39,066,093.05 | 23.63 |
| Total | 613 | - | 167,411,346.30 | - |

The most common causes for claims were 'judgement/timing' (377 claims, 61.50%), 'interpretation of results/clinical picture' (102 claims, 16.64%), 'unsatisfactory outcome to surgery' (62 claims, 10.11%), 'fail to warn/informed consent' (38 claims, 6.20%) and 'inadequate nursing care' (36 claims, 5.87%). The impact of informed consent on surgical claims is more significant than the 38 claims which were directly identified. Lack of fully informed consent has played a role in many claims which were attributed to 'unsatisfactory outcome of surgery' and the patients' perception of poor 'judgement or timing'. Many of these claims are likely to be avoidable through an adequate consenting process in which an informed patient is involved in shared decision-making.

It was clear during GIRFT visits that many providers had little knowledge of the claims against them. This includes some with high litigation costs per admission as well as those at the low end. As a consequence, very few lessons have been learnt from the claims to inform future practice.

There was also a sense that too often vascular surgery departments had been unable to defend claims adequately due to a lack of documentation showing the decisions that were made and rationale behind them. Moreover, in some cases, vascular surgery teams knew or suspected that they were recorded as being responsible for incidences where the key failing or error was made by a different team. Again, the vascular surgery departments didn't have the information to support their opinion.

The issue here is not to try and shift the blame, but rather to take a more systematic approach to addressing claims: accepting responsibility where appropriate but also learning from previous claims and helping other departments to do the same. With litigation levels so high in vascular surgery, it is the responsibility of the whole department to address this; if even £1 million of the £39 million that is expected to be paid out for the claims notified last year could be redirected into frontline care, that would potentially pay for 120 EVAR AAA procedures.

| Recommendation | Actions | Timeline |
|--|---|--|
| 17. Reduce litigation costs by application of the GIRFT Programme's five-point plan.* | 17A: Clinicians and trust management to assess their benchmarked position compared to the national average when reviewing the estimated litigation cost per activity. Trusts will have received an updated version of this for vascular surgery in the GIRFT 'Litigation in surgical specialties data pack', December 2017 | For immediate action. |
| | 17B: Clinicians and trust management to discuss with the legal department or claims handler the claims submitted to NHS Resolution included in the data set to confirm correct coding to that department, and inform NHS Resolution of any claims which are not coded correctly to the appropriate specialty via CNST.Helpline@resolution.nhs.uk | Upon completion of 17A. |
| | 17C: Once claims have been verified clinicians and trust management to further review claims in detail including expert witness statements, panel firm reports and counsel advice as well as medical records to determine where patient care or documentation could be improved. If the legal department or claims handler needs additional assistance with this, each trusts' panel firm should be able to provide support. | Upon completion of 17B. |
| | 17D: Claims to be compared with learning themes from complaints, inquests and serious untoward incidents (SUI). Where a claim has not already been reviewed as SUI, this should be carried out to ensure no opportunity for learning is missed.* | Upon completion of 17C. |
| | 17E: Where trusts are outside the top quartile for litigation costs per activity, GIRFT to ask national clinical leads and regional hub directors to follow up and support trusts in the steps taken to learn from claims and share examples of good practice where it would be of benefit. | For continual action throughout GIRFT programme. |
| | *As described in GIRFT 'Litigation in surgical specialties data pack', Dec 2017. Note that actions 17A to 17D are part of a continual improvement cycle. | |

POTENTIAL IMPACT

The central focus of the GIRFT Vascular Surgery report is to improve patient care for the benefit of patients. The recommendations put forward to achieve this goal have far reaching impacts including: reductions in returns to theatre, stroke, emergency readmission and mortality rates, as well as reductions in lengths of stay. Most also offer the NHS opportunities to make savings or improve productivity. Table 4 illustrates a financial opportunity of between £7.6 million and £16 million. This opportunity is in addition to a £6.5 million financial opportunity in procurement and, more importantly, an opportunity to prevent over 100 deaths.

It should be noted that this section does not comprehensively list the opportunities discussed in this report – only selected metrics have been included below as examples of what might be possible. Furthermore, these metrics only identify variation, some of which will be warranted and some of which will be unwarranted.

The GIRFT programme emphasises that these opportunity values are for illustration only. Individual providers and clinicians should assess their own services to determine the unwarranted variation that exists, the associated opportunity and thus the prioritisation of service changes that they wish to deliver.

Table 4: the potential impact of GIRFT implementation in Vascular Surgery

| Improvement | National mean average or better | | | Top quartile or better | | |
|---|---------------------------------|------------------------------|--------------------------------------|------------------------|------------------------------|--------------------------------------|
| | Target | Activity opportunity | Gross notional financial opportunity | Target | Activity opportunity | Gross notional financial opportunity |
| Improving AAA mortality rates (inpatient mortality, following any repair procedure) <i>Source & year: National Vascular Registry Organisational Audit 2015</i> | 1.44% or below | 17 deaths avoided | n/a | 0.7% or below | 31 deaths avoided | n/a |
| Improving major lower limb amputation mortality rates (during the inpatient spell or readmission within 30 days) <i>Source & year: HES Original admission April 2012 – December 2014</i> | 7.37% or below | 36 deaths avoided | n/a | 5.17% or below | 77 deaths avoided | n/a |
| Improving stroke / mortality rates for carotid endarterectomy (during the inpatient spell) <i>Source & year: National Vascular Registry Organisational Audit 2014</i> | 1.84% or below | 16 strokes or deaths avoided | n/a | 1% or below | 37 strokes or deaths avoided | n/a |
| Reducing readmissions after AAA open procedure (any emergency readmission within 30 days) <i>Source & year: HES Original admission April 2012 – December 2014</i> <i>Gross notional financial opportunity based on average PBR cost of readmission spells</i> | 9.6% or below | 20 spells | £175k | 7.1% or below | 40 spells | £350k |
| Reducing readmissions after AAA endovascular procedure (any emergency readmission within 30 days) <i>Source & year: HES Original admission April 2012 – December 2014</i> <i>Gross notional financial opportunity based on average PBR cost of readmission spells</i> | 11.3% or below | 55 spells | £420k | 8.4% or below | 150 spells | £1,145k |
| Reducing readmissions after carotid endarterectomy procedure (any emergency readmission within 30 days) <i>Source & year: HES Original admission April 2012 – December 2014</i> <i>Gross notional financial opportunity based on average PBR cost of readmission spells</i> | 8.1% or below | 40 spells | £200k | 6.6% or below | 74.6 spells | £375k |
| Reducing readmissions after major leg amputation (any emergency readmission within 30 days) <i>Source & year: HES Original admission April 2012 – December 2014</i> <i>Gross notional financial opportunity based on average PBR cost of readmission spells</i> | 16.5% or below | 45 spells | £480k | 14.2% or below | 80 spells | £850k |
| Reducing length of stay for elective AAA endovascular procedures Excludes revisions and complex procedures <i>Source & year: HES April 2014 – March 2015</i> | 2.9 days or below | 3140 days | £920k | 1.9 days or below | 7230 days | £2,115k |
| Reducing length of stay for non-elective AAA endovascular procedures Excludes revisions and complex procedures <i>Source & year: HES April 2014 – March 2015</i> | 14.2 days or below | 2400 days | £740k | 11 days or below | 4990 days | £1,540k |
| Reducing length of stay for elective AAA open procedures Excludes revisions and complex procedures <i>Source & year: HES April 2014 – March 2015</i> | 10.5 days or below | 1200 days | £350k | 8.6 days or below | 2370 days | £695k |
| Reducing length of stay for non-elective AAA open procedures Excludes revisions and complex procedures <i>Source & year: HES April 2014 – March 2015</i> | 16.4 days or below | 1800 days | £555k | 12.2 days or below | 4015 days | £1,240k |
| Reducing length of stay for elective lower limb angioplasty in diabetic patients <i>Source & year: HES April 2014 – March 2015</i> | 2 days or below | 2135 days | £625k | 0.9 days or below | 4360 days | £1,275k |
| Reducing length of stay for elective lower limb angioplasty in non-diabetic patients <i>Source & year: HES April 2014 – March 2015</i> | 1.3 days or below | 2575 days | £755k | 0.7 days or below | 4855 days | £1,420k |
| Reducing length of stay for elective lower limb bypass in diabetic patients <i>Source & year: HES April 2014 – March 2015</i> | 9.3 days or below | 2080 days | £610k | 6.3 days or below | 4500 days | £1,315k |
| Reducing length of stay for elective lower limb bypass in non-diabetic patients <i>Source & year: HES April 2014 – March 2015</i> | 7.6 days or below | 3235 days | £945k | 5.7 days or below | 6745 days | £1,975k |
| Reducing length of stay for elective carotid endarterectomy procedure <i>Source & year: HES April 2014 – March 2015</i> | 3 days or below | 950 days | £280k | 2.2 days or below | 2082 days | £610k |
| Reducing length of stay for non-elective carotid endarterectomy procedure <i>Source & year: HES April 2014 – March 2015</i> | 9.6 days or below | 1880 days | £580k | 7.5 days or below | 3585 days | £1,105k |
| Reducing return-to-theatre rates for AAA procedures (based on overall figures i.e. not casemix-adjusted) <i>Source & year: National Vascular Registry Organisational Audit 2014</i> | 6.9% or below | 75 theatre returns | n/a | 4.3% or below | 165 theatre returns | n/a |
| Reducing return-to-theatre rates for carotid endarterectomy procedures <i>Source & year: National Vascular Registry Organisational Audit 2014</i> | 2.9% or below | 70 theatre returns | n/a | 1.3% or below | 145 theatre returns | n/a |
| Total | | | £7,635k | | | £16,010k |

Note: unless stated otherwise in the table above, gross notional financial opportunities are based on bed day savings, costed at the average 2015/16 Reference Cost excess bed day cost for vascular surgery (elective or non-elective, as appropriate).

ABOUT THE GIRFT PROGRAMME

Getting It Right First Time (GIRFT) is a national programme designed to improve medical care within the NHS. Funded by the Department of Health and jointly overseen by NHS Improvement and the Royal National Orthopaedic Hospital NHS Trust, it combines wide-ranging data analysis with the input and professional knowledge of senior clinicians to examine how things are currently being done and how they could be improved.

Working to the principle that a patient should expect to receive equally timely and effective investigations, treatment and outcomes wherever care is delivered, irrespective of who delivers that care, GIRFT aims to identify approaches from across the NHS that improve outcomes and patient experience, without the need for radical change or additional investment. While the gains for each patient or procedure may appear marginal they can, when multiplied across an entire trust – and even more so across the NHS as a whole – deliver substantial cumulative benefits.

The programme was first conceived and developed by Professor Tim Briggs to review elective orthopaedic surgery to address a range of observed and undesirable variations in orthopaedics. In the 12 months after the pilot programme, it delivered an estimated £30m-£50m savings in orthopaedic care – predominantly through changes that reduced average length of stay and improved procurement.

The same model is now being applied in more than 30 different areas of medical practice. It consists of four key strands:

- a broad data gathering and analysis exercise, performed by health data analysts, which generates a detailed picture of current national practice, outcomes and other related factors;
- a series of discussions between clinical specialists and individual hospital trusts, which are based on the data – providing an unprecedented opportunity to examine individual trust behaviour and performance in the relevant area of practice, in the context of the national picture. This then enables the trust to understand where it is performing well and what it could do better – drawing on the input of senior clinicians;
- a national report, that draws on both the data analysis and the discussions with the hospital trusts to identify opportunities for NHS-wide improvement; and
- an implementation phase where the GIRFT team supports providers to deliver the improvements recommended.

The programme relies on engagement by NHS trusts and foundation trusts. At the outset of the programme, letters are sent from the GIRFT clinical lead for each area of practice to the chief executive, the medical director and the heads of service for the relevant specialty, of all NHS trusts and foundation trusts in England. This letter calls on the provider to engage with the programme, and to date providers have responded well to this call.

GIRFT and other improvement initiatives

The GIRFT programme is founded on using data to understand unexplained variation to provide an opportunity for standardisation and improvement.

It also reflects experience in the NHS and internationally accepted best practice that the most effective initiatives to improve quality, productivity and efficiency are clinically led. As well as support from the Department of Health and NHS Improvement, it has the backing of Royal Colleges and professional associations.

GIRFT is part of an aligned set of work streams within the Operational Productivity Directorate of NHS Improvement. It is the delivery vehicle for one of several recommendations made by Lord Carter in his February 2016 review of operational efficiency in acute trusts across England.

GIRFT has a significant and growing presence on the Model Hospital portal, with its data-rich approach providing the evidence for hospitals to benchmark against expected standards of service and efficiency. The programme will also work with a number of wider NHS programmes and initiatives which are seeking to improve standards while delivering savings and efficiencies, such as NHS RightCare, acute care collaborations (ACCs), and sustainability and transformation partnerships (STPs).

Data analysis

The data analysis exercise brings together a wealth of existing NHS data in an innovative way to paint a comprehensive picture of this aspect of medical practice. It includes Hospital Episode Statistics (HES), relevant registry or professional body data, mortality data, demographic information and patient survey data. Alongside this, a specific questionnaire is sent out to all trusts that have agreed to participate.

The output is a data pack consisting of standard and novel metrics, covering input, activity, process and outcomes. For example, it will typically address issues such as:

- quality of care – using indicators such as mortality and readmission rates;
- factors linked to outcomes – including adoption of best practice, low volumes of procedures, and time to surgery;
- access – e.g. standardised activity per 100,000 population;
- efficiency – length of stay and costs; and
- patient experience.

The resulting data pack provides a detailed, data-led view of the way this area of practice is currently delivered across the country. It shows where there is variation in both provision and outcomes, and helps identify patterns which could indicate opportunities to improve care or deliver efficiencies.

The data sources are selected and the metrics for each area of practice are developed in partnership with GIRFT programme clinical leads for that area, thus ensuring they are relevant to the decisions a senior clinician in that field may have to make. The core sources used to analyse vascular surgery are the National Vascular Registry (NVR) – a database set up 20 years ago by the Vascular Society to record data about major vascular procedures – and Hospital Episode Statistics. In addition, data has been drawn from the National Abdominal Aortic Aneurysm Screening Programme. Further sources were trust reference costs and NHS Resolution data. Patient-reported outcome measures (PROMs) are not yet widely validated in vascular surgery: in particular, the use of the Friends and Family Test is very limited. As the programme develops, it is intended to develop more informative and actionable metrics.

The discussions

With the national picture clear, the data analysis team then generate data packs for each hospital trust that is participating in the programme. These reports compare the trust's performance with the national data, enabling the trust to see how its activity levels, commissioning decisions, costs and patient outcomes for different procedures measure up to those of its peers.

These individual data packs are not designed for wider publication but rather to give the trust an insight into this area of practice. They are issued to the trust in advance of a scheduled meeting between clinical leads appointed by the GIRFT programme and senior staff at the trust. At the meeting, the clinical leads discuss the data packs with the trust, with a particular focus on the areas where the data shows variation between national norms and the trust's performance. Where the data indicates the trust may be underperforming in some way, this is explored in more detail to see whether there is an alternative explanation for the data; where appropriate, the trust can then draw on the expertise of senior clinicians in the field as they discuss specific challenges they face and consider potential changes to practice.

Conversely, where the data indicates the trust is outperforming its peers, clinical leads seek to understand what the trust is doing differently and how its approach could be adopted by others to improve performance across the NHS.

Feedback from trusts has been uniformly positive and in every case, actionable steps have been identified to improve aspects of local provision.

The report

The Orthopaedic GIRFT pilot project identified that, following about 30 Trust reviews, the problems and potential solutions identified were the same across all subsequent trust visits. After all the visits have been completed the clinical lead oversees the creation of a national GIRFT report into their specialty. The report provides an overview of the way this area of practice is delivered across the country, examples of best practice and recommendations for potential improvements at the national level. This is one such report.

Implementation

GIRFT has developed a comprehensive implementation programme designed to help trusts and their local partners to address the issues raised in trust data packs and national specialty reports and improve quality.

Supporting the work of the GIRFT Clinical Leads, GIRFT Regional Hubs have been established. The hubs' clinical and project delivery leads visit trusts and local stakeholders in each region on a regular basis to advise on how to reflect the national recommendations into local practice and support efforts to deliver any trust-specific recommendations emerging from the GIRFT clinical lead visits. These teams will also help to disseminate best practice across the country, matching up trusts that might benefit from collaborating in selected areas of clinical practice.

GIRFT will be working closely with other NHS programmes working at national, regional and local level, such as NHS England Specialised Commissioning, RightCare and STPs, to ensure a complementary approach and to streamline requests to providers. GIRFT is also working with a range of wider partners such as the Royal Colleges, NICE and national professional associations and societies on ensuring that GIRFT recommendations are reflected in best practice guidelines.

Through all our efforts, local or national, GIRFT will strive to embody the 'shoulder to shoulder' ethos which has become GIRFT's hallmark, supporting clinicians nationwide to deliver continuous quality improvement for the benefit of their patients.

Medical/surgical terminology

Abdominal aortic aneurysm (AAA)

A blood-filled bulge in the weakened wall of the aorta (the body's largest artery). When an AAA ruptures, it can be fatal, so vascular surgery is recommended to repair the aneurysm when it is deemed at risk of rupture (typically, when the diameter reaches 5.5cm.)

Angioplasty

An interventional radiological vascular procedure used to dilate blocked or narrowed arteries. It typically involves the insertion of a balloon to open the artery and sometimes a stent to help ensure the artery remains open. In this report, it is predominantly referred to when used in lower limb revascularisation.

Atherosclerosis

The build-up of fatty material in the wall of arteries. This can lead to arteries becoming blocked preventing blood flow to vital organs.

Bypass

An open vascular surgical procedure used to restore blood flow to parts of the body, by redirecting the blood around a blocked artery. A small section of vein taken from elsewhere in the body or a prosthetic graft is sewn from above to below a blocked segment of artery. In this report, it is predominantly referred to when used as a means of lower limb revascularisation.

Carotid endarterectomy

An open vascular surgery procedure used to remove fatty plaque in the carotid arteries, which supply blood to the brain. NICE guidance recommends that it take place within fourteen days of a minor stroke or transient ischaemic attack, to help prevent a major stroke.

Co-morbidities

The simultaneous presence of two or more chronic diseases or conditions in a patient.

Diabetic foot

Diabetes can cause a reduced blood supply to the feet and also cause a loss of feeling, meaning patients may not recognise when their feet are injured. This in turn may give rise to skin ulceration, infection and tissue loss requiring amputation. To help address this, many hospitals run diabetic foot clinics.

Endovascular Aneurysm Repair (EVAR)

A minimally invasive method of surgery for AAA. It involves making one or more small incisions in the groin and then using X-rays to guide the surgeon/radiologist as he or she inserts a small tube at the site of the aneurysm. An expandable stent-graft is then inserted through the tube into the aneurysm to strengthen the wall. Blood can then flow through the stent-graft and avoid pressure on the aneurysm wall.

Hybrid theatre

An operating theatre that is equipped to conduct both open surgery and has full X-ray facilities to conduct interventional radiology procedures such as EVAR.

Interventional radiology

A range of techniques that use radiological images to diagnose and treat diseases in a minimally invasive way.

Ischaemia

Ischaemia is damaged tissue as a result of severely reduced blood supply usually as a result of narrowed or blocked arteries

Length of stay

This is a term to describe the duration of a single episode of hospitalisation

NAAASP

The National Abdominal Aortic Aneurysm Screening Programme. All males over 65 in England should be offered screening.

NVR

The National Vascular Registry. It was launched in 2013 as a successor to the National Vascular Database, which had been established by the Vascular Society over 20 years ago to record details of vascular surgery in the UK. Now maintained by the Vascular Services Quality Improvement Programme.

Peripheral Vascular Disease

Blockages and damage to 'peripheral' arteries – i.e. not the aorta, the carotid arteries or other main arteries. Generally refers to the arteries in the leg.

Revascularisation

Vascular surgery procedures designed to address peripheral vascular disease and enable the blood to flow around the body. In this report, it generally refers to procedures to improve the blood supply to the legs.

Stent

A small metallic mesh tube used to re-open narrow or blocked arteries. Once inserted, it helps to ensure the artery remains open to maintain blood flow.

Transient ischaemic attack (TIA)

Often referred to as a 'mini-stroke', a TIA is a temporary disruption in blood flow to the brain. The symptoms can be similar to a stroke, but only last a short period – sometimes just minutes. A TIA is recognised as a key warning sign that the person is at risk of a major stroke.

NHS organisations and terminology

Clinical Commissioning Groups (CCGs)

These were created following the Health and Social Care Act in 2012, and replaced Primary Care Trusts on 1 April 2013. CCGs are clinically led statutory NHS bodies responsible for the planning and commissioning of healthcare services for their local area. There are now 207 CCGs in England.

Commissioners

Commissioning is the process through which the health needs of the local population are identified and the services purchased and reviewed to meet those needs.

Friends and Family Test

The Friends and Family Test is an important feedback tool that supports the fundamental principle that people who use NHS services should have the opportunity to provide feedback on their experience.

www.england.nhs.uk/ourwork/pe/fft/

Hospital Episode Statistics (HES)

Data collected during a patient's time at hospital and submitted to allow hospitals to be paid for the care they deliver. The aim is to collect a detailed record for each 'episode' of admitted patient care delivered in England, either by NHS hospitals or delivered in the independent sector but commissioned by the NHS.

Healthcare Quality Improvement Partnership (HQIP)

An independent organisation led by the Academy of Medical Royal Colleges, the Royal College of Nursing and National Voices.

www.hqip.org.uk

NHSE

NHS England

NHSI

NHS Improvement

NHS RightCare

Reducing unwarranted variation to improve people's health.

www.england.nhs.uk/rightcare

NICE - the National Institute for Health and Care Excellence

Improving health and social care through evidence-based guidance.

www.nice.org.uk

ACKNOWLEDGEMENTS

This project and report could not have happened without the vision, enthusiasm and leadership of Tim Briggs and Lord Carter and the support and delivery of an army of people all working much harder than me.

We are very grateful indeed to the Vascular Society, the HES database*, the NVR database and all their teams who have supported this project and allowed us to use data they have collected. The project would not have been possible without their invaluable support.

I am personally indebted to the much enlarged GIRFT team, notably Rachel Yates, Nicola Joyce and Jamie Day for their infinite patience, organisation and support, and John Machin, the Litigation Lead for the GIRFT programme for his input on this complex issue. In particular, I would like to thank Neha Patel who has been my Senior Project Manager and accompanied me on all the 'deep dive' visits to hospital trusts.

My thanks also go to the team at Methods Analytics led by Simon Swift for their help and enthusiasm.

I would also like to thank all the clinical and managerial colleagues from the many NHS trusts who have met with us and contributed in a very positive way to so many enjoyable and productive meetings.

Finally I would particularly like to thank Matthew Barker for his invaluable input into tidying up the report and making invaluable suggestions as to how best to integrate this report into the greater NHS.

Professor Michael Horrocks

GIRFT Clinical Lead for Vascular Surgery

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For more information about GIRFT,
visit our website: www.GettingItRightFirstTime.co.uk
or email us on info@GettingItRightFirstTime.co.uk

You can also follow us on Twitter @NHSGIRFT and
LinkedIn: www.linkedin.com/company/getting-it-right-first-time-girft

The full report and executive summary are also available to download as
PDFs from: www.GettingItRightFirstTime.co.uk

Appendix 4 – Analysis of bed requirements

| | YSBYTY GLAN CLWYD | | | YSBYTY GWYNEDD | | |
|--|----------------------|------------------|------------------------|----------------------|------------------|------------------------|
| Procedure | Number of Procedures | Episode Bed Days | Bed Requirement at 85% | Number of Procedures | Episode Bed Days | Bed Requirement at 85% |
| AAA Open – Emergency & Elective | 32 | 397 | 1.3 | | | |
| EVAR | 41 | 193 | 0.6 | | | |
| Carotid | 42 | 72 | 0.2 | | | |
| Peripheral Arterial Procedures | 132 | 943 | 2.1 | 15 | 352 | |
| Amputation (excluding Foot & Toe) | 47 | 1096 | 3.5 | | | |
| Inpatient IR | 122 | 162 | 0.5 | 34 | 429 | |
| Inpatient activity with no theatre procedure | | 2765 | 8.9 | | 3430 | |
| TOTAL BED DAYS | | YGC 5628 | | | YG 4211 | |
| BED REQUIREMENT | | | YGC 18 | | YG 13.5 | |



**Wales Abdominal Aortic Aneurysm Screening
Programme**

Public Health Wales, Unit 6, Green Meadow,
Llantrisant, Pontyclun, CF72 8XT
Ffôn/Tel: 01443235381

Our Ref: QS/pab

6th January 2020

Dr David Fearnley
Executive Medical Director
Betsi Cadwaladr University Health Board
Carlton Court,
St Asaph Business Park,
St Asaph
LL17 0JG

Dear David

**Re: Wales AAA Screening Programme (WAAASP) Elective Vascular Network
Quality Assurance (QA) follow-up site visit**

Thank you for your hospitality and positive meeting on 8th November 2019. It is pleasing to note the commitment demonstrated by the Health Board and the vascular team to the centralisation of the vascular services since April 2019. During the meeting, we received assurances that extensive progress has been made with the centralisation of services at the Ysbyty Glan Clwyd site. We were also afforded the opportunity to visit the excellent hybrid theatre and the vascular ward.

We appreciated your open discussions regarding the review of [REDACTED] and are assured that changes have been made within the vascular services to formally review such cases at the Clinical Governance groups meetings. The template for reviewing the mortality cases was noted as best practice and will be shared with the other two vascular networks in Wales.

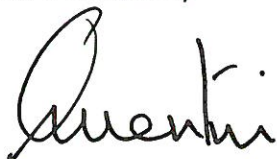
The following actions were raised as the result of the discussions:

- WAAASP to consider and circulate any guidance on "At what point do you bring in a second consultant?"
- Copy of mortality case review template to be sent to WAAASP
- Clinical Governance group meeting dates to be sent to WAAASP
- Formal outstanding mortality review report to be sent to WAAASP
- Vascular network manager to be included in WAAASP 6 weekly meeting with vascular network MDT coordinators
- Vascular network manager and Head of Nursing to consider
 - how to improve NVR data entry
 - MDT coordinator role
- North Wales EVN to explore the empty ward to bring the vascular surgery beds from Ysbyty Gwynedd over to Ysbyty Glan Clwyd.

I understand from Llywela Wilson, Head of WAAASP that several of the above actions have been completed and she is liaising regularly with Jo Garzoni, Vascular Network Manager, for updates on outstanding actions.

As discussed at the meeting, I was provided with sufficient assurances of progress to stop attending the QA visits. Heather Lewis, Consultant in Public Health will be supporting the WAAASP QA visit in autumn 2020.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Quentin', with a stylized flourish at the end.

Dr Quentin Sandifer
Executive Director of Public Health Services and Medical Director
Cyfarwyddwr Gweithredol ar Gyfer Gwasanaethau Iechyd Cyhoeddus

BCULHB (Central) Ysbyty Glan Clwyd

Division of Anaesthesia, Critical Care & Chronic Pain Clinical Governance Forum

Wednesday 13th March 2019

Foyer, Post Grad

AGENDA

Chair – Dr G Mula

| | Clinical Governance Core Theme | Speaker |
|---------------|--|----------------|
| 9:00 – 9:15 | Minutes of Previous Meeting held on Tuesday 22 nd January | Dr G Mula |
| 9:15 – 9:40 | Overview of Vascular and Vascular services at YGC | Mr Desmarowitz |
| 9:40 – 10:05 | How Vascular Emergencies present & what is the initial anaesthetic pre-op management | Dr A Evans |
| 10:05 – 10:30 | Anaesthetic Management for Emergency AAA | Dr J Dougherty |
| 10:30 – 11:00 | COFFEE BREAK | |
| 11:00 – 11:25 | Anaesthetic Management for Carotids (and return to theatre) | Dr A Slater |
| 11:25 – 11:50 | Anaesthetic Management for Ischaemic legs | Dr D Pausan |
| 11:50 – 12:15 | Anaesthetic Management for Amputations | Dr A Jacob |
| 12:15 – 12:45 | LUNCH | |

**Reminder to all that attendance is COMPULSORY and is recorded.
Please send your apologies if you are unable to attend.
Please note – timings and order of the timetable could change**

YGC Theatres Training 25th April 2019

12:30 - 13:00

Lunch

13:00 - 14:00

ACSA (Anaesthesia Clinical Services Accreditation) Presentation
Dr Russell Perkins, RCoA ACSA Committee Chair
Ms Carly Melbourne, RCoA Head of Clinical Quality

14:00 - 14:10

Group allocations, Welcome and introduction / briefing
Dr Mula

| | Scenarios | | | Workshops | | | | Coffee |
|---------------|-----------|--------|---------------|-----------|---|---|---|------------|
| | 1 | 2 | | 1 | 2 | 3 | 4 | |
| 14:10 - 15:10 | RED | GREEN | 14:10 - 14:30 | D | E | F | | |
| | | | 14:30 - 14:50 | | D | E | F | |
| | | | 14:50 - 15:10 | F | | D | E | |
| | | | 15:10 - 15:30 | E | F | | D | ABC |
| | | | 15:30 - 15:50 | A | B | C | | DEF |
| 16:00 - 16:50 | BLUE | YELLOW | 15:50 - 16:10 | | A | B | C | |
| | | | 16:10 - 16:30 | C | | A | B | |
| | | | 16:30 - 16:50 | B | C | | A | |

Workshop 1 Cell Salvage Machine

Workshop 2 Belmont Rapid Infusor

Workshop 3 Vascular Grafts

Workshop 4 Haemostats and Sealants (Baxter – Floseal)

Scenario 1 Massive Haemorrhage / Ruptured AAA

Scenario 2 Anaphylaxis



GIG
CYMRU
NHS
WALES

Bwrdd Iechyd Prifysgol
Betsi Cadwaladr
University Health Board

Central Division of Anaesthetics, Critical Care & Chronic Pain Clinical Governance Meeting

**Minutes held on 13th March 2019, Foyer / Room 5,
Library Corridor**

Present:

Dr Gareth Mula (Chair & Minute taker)

| | | | |
|-----------------|--------------------------------|---------------------|----------------|
| Dr A Slater | Dr J Dougherty | Dr C G-Thorpe | Dr M Khater |
| Dr I Kosheleva | Dr D Pausan | Dr M Adke | Dr O'Keeffe |
| Dr S O Frimpong | Dr I Volikas | Dr P Michael | Dr P Patil |
| Dr Bhuvan | Dr A Wood | Dr Divya | Dr X David |
| Dr P Verghese | Dr E Wong | Dr Y Slim | Dr A Jacob |
| Dr Hossam | Dr A Evans | Dr L Bandara | Dr G Bugelli |
| Dr D Williams | Dr Ivan | Dr A Safranko | Dr Shenoy |
| Dr V Sundaram | Dr E Hosking | Mr Desmarowitz | Kristie Watson |
| Sue Smith | Paul Dreves | V. Montgomery (AIT) | M. Daros (AIT) |
| P. Patton (AIT) | Mrs E Davordjie (Minute Taker) | | |

Apologies:

| | | | |
|-----------------|-----------------|--------------------|-----------------|
| Dr D Thaker | Dr J Sweeney | Dr A Foulkes | Dr C Variu (Em) |
| Dr R Reddy (Tr) | Dr J Glen (ITU) | Dr S Mohamed (ITU) | |

Nights/Post Nights:

| | | | |
|---------------|------------------|----------------|-------------------|
| Dr Raluca (N) | Dr S Kumar (P/N) | Dr Sneha (U/D) | Dr B Foster (U/D) |
|---------------|------------------|----------------|-------------------|

Not Present:

| | | | |
|-----------------|------------------|--------------------|-------------------|
| Dr S Hugo (U/D) | Dr S Pierce | Dr R Pugh (A/L) | Dr R Shobha (A/L) |
| Dr B Tehan | Dr B Jones (U/D) | Dr I Roberts (U/D) | Dr M Kriger (A/L) |
| Dr H Llewellyn | Dr P Kucharski | Dr A Ellison | |

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| 08/19 | <p>Matters Discussed:</p> <p>Minutes from previous meeting on 22nd January 2019 were accepted as a true record.</p> <p>Dr G-Thorpe highlighted that the Airway M&M meetings have started and usually take place on the 1st Tuesday of the month.</p> <p>Dr Hosking requested that there be some kind of action tracker to track actions from previous meetings.</p> | ACTION Required and by whom |
|--------------|--|--|

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| 09/19 | <p>Overview of Vascular and Vascular Services at YGC – Mr Desmarowitz</p> <p>Mr Desmarowitz gave a snapshot overview of the vascular waiting list and briefly discussed the various cases he has done over the last year.</p> <p>He informed us that Ward 3 will be the new Vascular ward. He envisaged that the new Hybrid theatre will be used for many other vascular hybrid operations that do not involve aortic aneurysms and therefore be essential even if the pending NICE guideline on EVAR will reduce their overall numbers.</p> <p>Currently, in the UK over 80% of AAA are done endovascularly. Dr Bugelli asked about the impact of draft NICE guidelines on this. Mr Desmarowitz stated that numbers are not likely to change in the near future.</p> <p>20% of EVARs need secondary intervention and they are very costly.</p> <p>We have 9 vascular surgeons across BCU. They will be split so that 3 cover each site. All surgeons will have 1 list in YGC on a fortnightly basis Monday – Thursday and Fridays they will do a 1:8. The 3 Surgeons looking after YGC are Mr Desmarowitz, Mr Raudonitis and Mr Sohrabi.</p> <p>We will therefore be running vascular lists every day of the week, these will include elective and emergency cases.</p> <p>Mr Des stated that moving forward regions without a hybrid theatre will lose their vascular services.</p> <p>The number of ruptures has reduced dramatically, due to screening they are being picked up sooner and operated on electively.</p> <p>Dr O’Keeffe brought up the subject of POAC. This is to be included in the additional sessions we have been given for vascular, and will be an MDT / POAC joint session. All POAC’s will be done locally.</p> | |
| 10/19 | <p>How Vascular Emergencies present & what is the initial anaesthetic pre-op management – Dr A Evans</p> <p>Dr Evans gave a presentation on vascular emergencies, what they are exactly and how we should deal with them.</p> <p>What is a Vascular Emergency?</p> <p>An acute condition requiring intervention within hours, involving the ascending and descending aorta and its main limb branches.</p> <p>Examples of vascular emergencies:</p> <ul style="list-style-type: none"> - Ruptured AAA - Acute limb ischaemia - Evacuation of haematoma post-carotid surgery. <p>He mentioned outcomes and patient co-morbidities.</p> | |

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| | <p>Dr Evans discussed rAAA & Acute Limb Ischaemia: How it presents, peri-operative risks, initial assessment and management and treatment options.</p> <p>The following discussion took place:</p> <ul style="list-style-type: none"> - If there is a rAAA the ambulance would aim to bring the patient straight to YGC unless they are unstable and need to go to the nearest hospital. - CT scan would need to be done ASAP. - There was a discussion around what risk scoring system is used. The Hardman Index / GAS (Glasgow Aneurysm Score) are not completely reliable but may be useful when talking to families. - According to the NICE guidelines we shouldn't use a risk score for urgent cases. - We need to decide which scoring system we are going to use so that all sites can follow the same pathway. - All the scoring systems score quite high so what is the limit at which we agree to take a patient to theatre? - Dr O'Keeffe expressed concerns regarding the other sites carrying out POAC on patients that are being operated on here by us. - We would predominantly be doing open aneurysm repairs. EVAR would not be the choice for an emergency case. - Acute limb ischaemia can be split into 3 categories: cat.1 – you have time to investigate. cat.2 – urgent needs to be done within 6 hrs. cat.3 – irreversible, resulting in amputation. | <p>Dr Dougherty to look into a scoring system and whether we should use one at all.</p> |
| 11/19 | <p>Anaesthetic Management for Emergency AAA – Dr J Dougherty</p> <p>Dr Dougherty went through the processes that we should follow for an Emergency AAA.</p> <p>He discussed the following process: (details on attached presentation)</p> <p>What should take place prior to Induction</p> <p>Monitoring and equipment</p> <p>Induction</p> <p>Reasons for cardiovascular collapse</p> <p>Clamp on</p> <p>Aortic cross-clamping</p> <p>What happens prior to removal of clamp.</p> <p>Maintenance of renal function</p> <p>Haemostasis</p> <p>Transfer to ICU</p> <p>The following discussions took place:</p> <ul style="list-style-type: none"> - Should the surgical team take samples and request blood? <p>There was a lot discussion around who should do this and</p> | |

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| | <p>the outcome was whoever is the 1st person to see the patient should get on with the task.</p> <ul style="list-style-type: none"> - Is there scope for patients from other sites to bring blood with them? The reason for this question was that by the time they are transferred to YGC and then you have to go through the whole process it causes a delay. It has happened before where there has been time to sort it out before transfer. - Central lines should be put in after induction. - Is cardiac output monitoring useful? It isn't something you would do in an emergency situation but it can be looked at for elective cases. - You need to have very good communication between anaesthetist and surgeon. - Check with the surgeon re: FFP as they are not always keen. - Bottom line is talk to the surgeon and maintain good communication throughout the operation. | |
| 12/19 | <p>Anaesthetic Management for Carotids (and return to theatre) – Dr A Slater</p> <p>Dr Slater presented the process of dealing with Carotid Endarterectomy. He went through the following points:</p> <p>What is carotid endarterectomy.</p> <p>Pre-operative assessment</p> <p>Awake vs Asleep</p> <p>What to do for an awake endarterectomy</p> <p>Carotid endarterectomy block</p> <p>Peri-operative MAP</p> <p>When to shunt</p> <p>What to do for an asleep endarterectomy</p> <p>Recovery and post-operative care</p> <p>Hyperperfusion syndrome</p> <p>Return to theatre</p> <p>Top tips</p> <p>The following discussion took place:</p> <ul style="list-style-type: none"> - Carotids will tend to be elective. - Discussed the comparison of awake vs asleep. - All blocks generally need supplementation. - Patients will need a minimum of 4hrs in recovery and will generally go back to the ward - If they do go to HDU they would be expected to be discharged to the ward the next day. - Arterial lines should be removed at the point that the patient is being moved to the ward. | |

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| 13/19 | <p>Anaesthetic Management for Ischaemic legs – Dr D Pausan</p> <p>Dr Pausan presented Anaesthesia for lower limb revascularisation surgery and discussed the following points: Definition and type of surgery Risk factors Pre-operative assessment and risk stratification Pre-operative optimisation Anaesthetic technique Post-operative care</p> <p>The following discussion took place:</p> <ul style="list-style-type: none"> - Would you recommend the use of statins? If cholesterol is normal then there is no need. There was a brief discussion about the benefits. - GA vs Spinal vs Epidural. Regional techniques require an assessment of patients' anticoagulation status / anti-platelet agents, and patient may also be given heparin intra-op. However, the benefits of regional require consideration. - Brief discussion regarding anticoagulants. - Do we know how best to manage pre-op pain? PCAs have been tried. | |
| 14/19 | <p>Anaesthetic Management for Amputations – Dr A Jacob</p> <p>Dr Jacob presented the process for Lower Limb amputations and discussed the following points: An overview of statistics and recommendations from the VSGBI. Pre-operative assessment Pre-operative optimisation Pre-operative care Aims of anaesthesia Anaesthetic techniques Post-operative care Post amputation pain – discussed the different types of pain.</p> <p>The following discussions to place:</p> <ul style="list-style-type: none"> - Amputation patients should aim to be discussed at MDT. - How confident are we at managing epidurals on the ward? There was a lot of discussion around whether the nurses would be happy/confident with this. It was confirmed that the pain team will be providing training to the ward nurses on this. - We need to have a plan for AAA's ASAP. | |
| 15/19 | <p>AOB No other business was highlighted.</p> | |

Next meeting is Thursday 25th April 2019, Room 5, Post Grad

Name

Designation

Department

Hospital



Vascular Staff Nurse Portfolio of Competency

This portfolio of competencies has been designed by the Society of Vascular Nurses to be used to identify your development needs. This portfolio can be utilised to guide your current and future professional practice within the arena of vascular nursing. The SVN advises that you if you decide to complete this portfolio you should discuss this with your manager/supervisor, so that they are aware of your needs and can support your future development.

This portfolio is designed for nurses working in a ward or clinic setting, who are involved with the care of the vascular patient. Vascular nursing is varied and not every aspect of the competencies will be pertinent to your practice, for these areas there is an opportunity to mark that particular competency as not applicable.

The portfolio has 11 set areas of knowledge and practice, each area has a space for comments to be made, as this is a working document and it is expected that some of the competencies will take time to achieve. By making notes, your assessor can see progress made and also evidence of practice. The SVN advises that your assessor is a senior nurse with vascular experience or a senior member of the vascular team.

But please remember this document is only a guide and the user must ensure that their practice is in adherence with their employers' policies and documents.

Anatomy and Physiology

| An Awareness of the Anatomy and Physiology of: | Applicable/ Not Applicable | Comments/Evidence | Date Achieved | Signature/ Name of Assessor |
|--|----------------------------|-------------------|---------------|-----------------------------|
| The Arterial System | | | | |
| The Venous System | | | | |
| The Lymphatic System | | | | |
| Aetiology of peripheral arterial disease | | | | |
| Aetiology of leg ulceration | | | | |
| Diabetes and peripheral arterial disease | | | | |

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Vascular Risk Factor Control

| Be able to give advice and support in the following: | Applicable/ Not Applicable | Comments/Evidence | Date Achieved | Signature/ Name of Assessor |
|--|----------------------------------|-------------------|---------------|-----------------------------------|
| Smoking cessation | | | | |
| Diabetes | | | | |
| Hypercholesterolaemia | | | | |
| Exercise | | | | |
| Hypertension | | | | |
| Weight | | | | |
| Best medical therapy | | | | |

Pain and Symptom Control – Part 1

| Knowledge of Physiology/ Pharmacology of Pain | Applicable/ Not Applicable | Comments/Evidence | Date Achieved | Signature/ Name of Assessor |
|--|-------------------------------|-------------------|---------------|--------------------------------|
| Pain assessment | | | | |
| Management of rest pain | | | | |
| Management of acute pain post operatively | | | | |
| Management of the epidural | | | | |
| Management of nerve block | | | | |

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Pain and Symptom Control – Part 2

| Knowledge of Physiology/ Pharmacology of pain | Applicable/ Not Applicable | Comments/Evidence | Date Achieved | Signature/ Name of Assessor |
|--|-------------------------------|-------------------|---------------|--------------------------------|
| Management of PCA | | | | |
| Positioning and moving patients in pain | | | | |
| Phantom limb pain | | | | |
| Management in end stage vascular disease | | | | |
| Claudication pain | | | | |

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Nutrition

| To show understanding in the following: | Applicable/ Not Applicable | Comments/Evidence | Date Achieved | Signature/ Name of Assessor |
|---|-------------------------------|-------------------|---------------|--------------------------------|
| Nutritional assessment | | | | |
| Pre operative fasting | | | | |
| Promoting post operative nutrition | | | | |
| Nutrition in diabetes | | | | |
| Nutrition in wound healing | | | | |
| Effects of pain on appetite | | | | |
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| Liaison with nutritional services | | | | |
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Assessment - Part 1

| Holistic nursing assessment of the patient with peripheral arterial disease | Applicable/ Not Applicable | Comments/Evidence | Date Achieved | Signature/ Name of Assessor |
|---|----------------------------------|-------------------|---------------|-----------------------------------|
| Examination of peripheral pulses | | | | |
| Capillary refill | | | | |
| Temperature | | | | |
| Colour | | | | |
| Pain | | | | |
| Parasthesia | | | | |

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Assessment - Part 2

| Holistic nursing assessment of the patient with peripheral arterial disease | Applicable/ Not Applicable | Comments/Evidence | Date Achieved | Signature/ Name of Assessor |
|--|----------------------------------|-------------------|------------------|-----------------------------------|
| Use of hand held Doppler and interpretation of signals | | | | |
| Performing ABPI | | | | |
| Interpreting ABPI | | | | |
| An understanding of vascular tests and examinations E.g.; Duplex/ CT angiogram/ MR angiogram etc. | | | | |

Decision Making and Planning

| Evidence based nursing care: | Applicable/ Not Applicable | Comments/Evidence | Date Achieved | Signature/ Name of Assessor |
|---|----------------------------------|-------------------|------------------|-----------------------------------|
| Understanding rationale for medical/surgical decisions | | | | |
| Supporting patients to participate in decisions about their treatment | | | | |
| Discharge planning | | | | |
| Following protocols and pathways | | | | |
| Nursing involvement in medical /surgical decisions | | | | |
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| Recognising and acting on deterioration in patients condition | | | | |
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Care Of The Patient Undergoing The Following Procedures

| Be able to give advice and support in the following: | Applicable/ Not Applicable | Comments/Evidence | Date Achieved | Signature/ Name of Assessor |
|--|----------------------------------|-------------------|---------------|--------------------------------|
| Open AAA | | | | |
| EVAR | | | | |
| Carotid surgery | | | | |
| Limb arterial bypass | | | | |
| Limb amputation | | | | |
| Angiogram/Angioplasty | | | | |
| Fistula formation | | | | |

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| CAPD catheter | | | | |
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Tissue Viability and Wound Care – Part 1

| Evidence based nursing care: | Applicable/ Not Applicable | Comments/Evidence | Date Achieved | Signature/ Name of Assessor |
|------------------------------------|----------------------------------|-------------------|---------------|--------------------------------|
| Wound assessment | | | | |
| Dressing selections | | | | |
| Factors leading to delayed healing | | | | |
| Venous ulceration | | | | |
| | | | | |

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| Compression bandaging | | | | |
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Tissue Viability and Wound Care – Part 2

| Evidence based nursing care: | Applicable/ Not Applicable | Comments/Evidence | Date Achieved | Signature/ Name of Assessor |
|---|----------------------------------|-------------------|---------------|--------------------------------|
| Pressure ulcer risk assessment | | | | |
| Pressure ulcer prevention | | | | |
| Surgical wound care | | | | |
| Infection control in relation to wound management | | | | |
| Pain management during | | | | |

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| dressings change | | | | |
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Patient/ Relative Education and Support – Part 1

| Evidence based nursing care: | Applicable/ Not Applicable | Comments/Evidence | Date Achieved | Signature/ Name of Assessor |
|--|----------------------------|-------------------|---------------|-----------------------------|
| Advice on vascular conditions, and invasive procedures | | | | |
| Advice on surgical wound care | | | | |
| Advice about leg ulcer care | | | | |
| Advice following lower Limb bypass | | | | |
| Advice following limb amputation | | | | |

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| Pressure ulcer prevention advice | | | | |
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Patient/ Relative Education and Support – Part 2

| Evidence based nursing care: | Applicable/ Not Applicable | Comments/Evidence | Date Achieved | Signature/ Name of Assessor |
|--|----------------------------------|-------------------|---------------|--------------------------------|
| Knowledge of the multi disciplinary approach | | | | |
| Setting shared goals for rehabilitation | | | | |
| Encourages to discuss feelings | | | | |
| Counselling around amputation | | | | |
| Discharge planning | | | | |

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| Medication advice | | | | |
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Research

| Evidence of: | Applicable/ Not Applicable | Comments/Evidence | Date Achieved | Signature/ Name of Assessor |
|---|----------------------------------|-------------------|------------------|-----------------------------------|
| Conducting/participating in local audit/research | | | | |
| Awareness of national audit | | | | |

Final Completion of Portfolio Date

Comments

Assessor - Signature and Printed Name/ Designation

Nurse - Signature and Printed Name/ Designation

Appendix 9 – Agenda of vascular nurse training days

| Topic |
|---|
| Society of Vascular Nurses - Competencies |
| ABPI and WAVEFORMS Performing ABPI, interpreting /wave forms |
| THROMBOPROPYHLAXIS Risk assessments and contraindications in vascular and renal patients |
| POSTURE AND MOBILITY SERVICE <ul style="list-style-type: none"> • Service provision and referral route • Patient expectations and the patient journey • Interactive demonstration limbs • Pre-prosthetic part of the pathway • Wound healing |
| Lunch provided Presentation on Urgo Medical product and compression bandaging |
| DVT SPECIALIST NURSE Role of DVT nurse, DVT pathway, referrals |
| DUPLEX Duplex scans, aortas, carotids, lower limb, upper limb scans <ul style="list-style-type: none"> • IR Suite and Hybrid theatre • Pre and post angiogram / plasty instructions |
| Physiotherapy and Occupational Therapy |
| PAIN TEAM – Part A <ul style="list-style-type: none"> • Pain assessment • PCA's • Epidurals • Wound catheters |
| Nutrition and Diabetes |
| PAIN TEAM – Part B |
| PODIATRY <ul style="list-style-type: none"> • Diabetic foot • Foot Assessment • Use of hand held Doppler including foot pulses and capillary refill |
| DISCHARGE LIAISON <ul style="list-style-type: none"> • Patient flow • Discharge planning |
| PHARMACY <ul style="list-style-type: none"> • Anti-coagulation (including heparin infusion, enoxaparin therapeutic dosing, warfarin, NOAC's (apixaban, edoxaban, rivaroxaban, dabigatran)) • Antiplatelet drugs • Lipid modification advise and therapy (i.e. healthy eating, statins) • Nicotine Replacement Therapy • Specialised management for acute limb ischaemia e.g. Epoprostenol infusion • Pain management, anti-emetics, laxatives and thromboprophylaxis |
| Vascular procedures |

Appendix 10 - Vascular admissions

Vascular admissions - 1st April 2018 to 31st October 2018

| Hospital Name | Apr | May | Jun | Jul | Aug | Sep | Oct | Grand Total |
|-------------------------------|-----|-----|-----|-----|-----|-----|-----|-------------|
| Ysbyty Gwynedd Total | 46 | 46 | 66 | 57 | 57 | 49 | 60 | 381 |
| Ysbyty Glan Clwyd Total | 18 | 6 | 27 | 31 | 15 | 17 | 22 | 136 |
| Wrexham Maelor Hospital Total | 59 | 76 | 44 | 56 | 37 | 43 | 37 | 398 |
| Grand Total | 123 | 128 | 137 | 144 | 109 | 109 | 119 | 915 |

Vascular admissions - 1st April 2019 to 31st October 2019

| Hospital Name | Apr | May | Jun | Jul | Aug | Sep | Oct | Grand Total |
|-------------------------------|-----|-----|-----|-----|-----|-----|-----|-------------|
| Ysbyty Gwynedd Total | 34 | 30 | 28 | 26 | 20 | 17 | 14 | 169 |
| Ysbyty Glan Clwyd Total | 38 | 74 | 58 | 88 | 87 | 89 | 105 | 539 |
| Wrexham Maelor Hospital Total | 30 | 15 | 25 | 30 | 21 | 39 | 32 | 192 |
| Grand Total | 102 | 120 | 111 | 144 | 128 | 145 | 152 | 902 |

A Best Practice Clinical Care Pathway for Peripheral Arterial Disease

March 2019

**“Urgent vascular care delivered by
integrated vascular networks.”**

Introduction

The Vascular Society of Great Britain and Ireland (VSGBI) has developed this quality improvement framework (QIF) to respond to recommendations made in the vascular surgery GIRFT programme report (2018).

Peripheral arterial disease (PAD) is common, affecting 1 in 5 people over the age of 60 in the UK, and carries both the risk of lower limb loss and the increased risk of death from heart attack and stroke.

Prevalence data suggests that an 800,000 population should see approximately one presentation with critical limb ischaemia (CLI) and five presentations with diabetic foot problems every day. (POVS 2018)

23,000 lower limb revascularisation procedures are performed each year in the UK. These are the most frequent arterial interventions performed by vascular surgeons and interventional radiologists. (NVR 2018)

5-6,000 major lower limb amputations are performed in the NHS each year for complications of peripheral arterial disease and/or diabetes. (POVS 2018)

The vascular GIRFT visits found that the delivery of revascularisation in CLI is inconsistent across the UK, in terms of service provision, length of hospital stays and patient outcomes. (VASCULAR GIRFT 2018)

GIRFT reported universally unacceptable pathway delays to revascularisation. Furthermore, supervised exercise for intermittent claudication cannot be accessed in many parts of the UK.

This VSGBI QIF has been developed in collaboration with key stakeholders. It describes the care pathways, workforce and facilities required to improve outcomes for patients with PAD.

All patients, reduced morbidity and mortality from cardiovascular disease.

Intermittent claudication, sustained improvement in walking distance.

Critical limb ischaemia, restoration of a pain-free and functional lower limb.

Implementation of this QIF aims to reduce unwanted variation in services for people with PAD. Key to achieving this aim is the development of evidence-based, multi-disciplinary care pathways that include timelines to access urgent care for CLI.

In some regions, reorganisation, based upon the network model described in the VSGBI's Provision of Vascular Services documents will be needed.¹

In all regions, vascular network leads will need to work with hospital trusts, clinical commissioning groups (CCGs) and other medical and healthcare specialties, especially the multidisciplinary diabetic foot care teams (MDFTs), across their network areas to implement this QIF.

This QIF is aligned with the Vascular GIRFT recommendation that vascular networks develop processes to deliver urgent care.

¹ <https://www.vascularsociety.org.uk/userfiles/pages/files/Document%20Library/VS%202018%20Final.pdf>

Best practice

Peripheral Arterial Disease

- First line management for people with PAD is cardiovascular risk factor modification (page 10).
- Arterial networks should provide education for patients, GPs, community nurses and podiatrists in the diagnosis and treatment of PAD.
- Community access to ankle brachial pressure index (ABPI) measurement facilitates earlier PAD diagnosis.

Intermittent claudication

- Evidence-based management for most people is cardiovascular risk factor modification and enrolment in structured supervised exercise therapy.
 - Smoking cessation is effective in improving claudication distance.
 - Supervised exercise therapy improves claudication symptoms.
- Exercise therapies may also be beneficial in the management of other cardiovascular risk factors, such as obesity, hypertension and cholesterol.
- Failure to respond to medical therapy and exercise may lead the clinician and patient to consider referral to a vascular specialist for consideration of **Angioplasty or bypass surgery** - options available through the lower limb multi-disciplinary team (MDT).
- **Naftidrofuryl oxalate** is an option when there is no easy revascularization option, and treatment with a vasodilator is appropriate.¹

Acute limb ischaemia

- Patients with acute limb ischaemia, of less than two weeks duration, require immediate referral to vascular surgery.
- Emergency intervention may be required to prevent amputation.

Critical limb ischaemia

CLI is the advanced stage of PAD

Blood supply to the foot is insufficient for the needs of the tissues. European consensus definition is 'persistently recurring rest pain requiring analgesia for more than 2 weeks OR ulceration OR gangrene of the foot or toes; AND ankle pressure < 50mmHg and/or toe pressure <30mmHg.'

- Evidence-based management is early revascularisation, to prevent limb loss.
- Delay is best avoided by well organised networks with clear referral pathways.²
- Assessment of patients requires a multi-professional team, the lower limb MDT (page 5) available 24/7.
- Open bypass surgery must be delivered in vascular network arterial centres.
- Endovascular therapy maybe best delivered through day care, either at the arterial centre or at a networked hospital depending on network arrangements and geography.

Best practice care involves active participation in audit and research.

¹ Efficacy should be assessed after 3-6 months <https://cks.nice.org.uk/peripheral-arterial-disease#!scenario:2>

² The Manchester amputation reduction strategy (MARS) proposes managing all foot and leg ulcers through a pathway of care from community nurses and podiatrists to secondary care.

1. Evidence based, well organised, care for people with peripheral arterial disease, focused on **CV risk factor modification**.
2. Equitable access for people with PAD to
 - **supervised exercise therapy**
 - **timely revascularisation**
3. Every vascular network has a **lower limb multi-disciplinary team**, that collaborates closely with local MDTs.
4. Every patient receives a **multi-specialty assessment**, including **shared decision making** over treatment options.

```
graph LR; A[Referral] --> B["Admission or Transfer"]; B --> C["Specialist review  
WiFi Score  
Imaging"]; C --> D["Assessment  
Optimisation  
Shared decision  
Formal MDT"]; D --> E[Intervention];
```

The flowchart illustrates a five-step process:

- Referral**: Labeled as "Immediate".
- Admission or Transfer**
- Specialist review**, **WiFi Score**, and **Imaging**: This step is labeled as taking "2 days".
- Assessment**, **Optimisation**, **Shared decision**, and **Formal MDT**: The term "Formal MDT" is bolded.
- Intervention**: Labeled as taking "5 days".

```
graph LR; A[Referral] --> B[Triage]; B --> C[Specialist review  
WiFi Score  
Imaging]; C --> D[Assessment  
Optimisation  
Shared decision  
Formal MDT]; D --> E[Intervention];
```

The flowchart illustrates the diagnostic pathway for suspected meningitis, consisting of five sequential steps: Referral, Triage, Specialist review (including WiFi Score and Imaging), Assessment (including Optimisation, Shared decision, and Formal MDT), and Intervention. The timeline for each step is indicated below the boxes: Referral (Same day), Triage (1 working day), Specialist review (7 days), Assessment (14 days), and Intervention (14 days).



**VASCULAR
SOCIETY**

THE VASCULAR SOCIETY OF GREAT BRITAIN AND IRELAND

4 A Best Practice Clinical Care Pathway for **Peripheral Arterial Disease**

Multi-disciplinary lower limb team

- This model of care borrows from the one successfully implemented by multi-disciplinary diabetic foot care teams

| Core members |
|--|
| Formal lower limb MDT meeting Vascular surgeon - <i>at least two</i> Interventional radiologist - <i>at least two</i> Vascular nurse specialist Vascular anaesthetist Consultant in care of elderly and frailty Vascular scientist MDT administrator |
| Regular professional working Podiatrist Vascular ward & IR day care unit nurses Vascular ward and amputee therapists Nutrition team Diabetes specialist nurse Waiting list coordinator - <i>or equivalent</i> Discharge coordinator - <i>or equivalent</i> |

| Input available from |
|--|
| Acute pain team Acute medicine Cardiology Respiratory medicine Renal, including access to dialysis Endocrinology Plastic surgery – <i>for skin cover</i> Orthotics Microbiology Tissue viability nurse Amputation councillor Rehabilitation consultant Palliative care team Network manager |

MDT working involves both formal meetings and 24/7 professional working between MDT members.

Formal lower limb MDT meeting

- Should be weekly, led by a chairperson, and have a designated administrator.
- Must have adequate facilities such as room size, IM&T and AV support.
- Core members should be job planned to attend at least 50% of meetings.¹
- Equal access for clinicians working at the arterial centre and those working at non-arterial networked hospitals.
- Specialist submitting patient is responsible for providing minimum data set for patient to be discussed.
- Limb assessment using a standardised classification system, such as Wifl, helps the MDT assess the risk of limb loss and benefit of revascularisation.
- MDT discussions should minuted and be communicated to the patient and their family/friends so that they may be involved with informed decisions about their care.
- MDT outcomes must be recorded in the patient medical record.
- MDT data should be utilised to improve completeness and quality of NVR data submission.

The formal MDT meeting must not delay intervention, and on occasion discussion of a patient will occur after treatment.

¹ POVS 2018 recommends this is a 1 PA DCC allocation in consultant vascular surgeon job plans.

Pre-intervention assessment

- A multi-specialty multi-professional approach to care is required
 - patients with CLI are often elderly, nutritionally deficient and may be frail.
 - patients often have cardiac, renal and respiratory disease, and diabetes.
- A well-prepared patient is likely to have a better outcome
 - fewer complications;
 - fewer days of hospital stay;
 - less chance of early readmission.
- A patient for open, including 'hybrid', revascularisation should be reviewed in a specialist clinic, or on the ward, by
 - **Consultant anaesthetist;**
 - **Consultant in care of elderly and frailty**, if elderly or frail;¹
 - **Dietician**, if nutritionally deficient.
- A patient for endovascular therapy can be either assessed as for open surgery or be telephone assessed according to agreed written network protocols.
- The aims of these assessments are
 - risk assessment, including frailty;
 - referral and optimisation of coexisting medical conditions;
 - consideration and institution of prevention measures;
 - access to appropriate support services (i.e. pharmacy, diabetes).
- Anaesthetic work up for patients undergoing surgery should be based on Guidance on the Provision of Vascular Anaesthesia Services. (RCA 2019) ²

When a patient has not been seen in a specialist clinic the aim should be for equivalent evaluation and optimisation on the vascular ward.

¹ There is evidence that this assessment improves shared decision-making, clinical outcomes, length of stay and hospital readmissions in frail patients undergoing surgery.

² <https://www.rcoa.ac.uk/document-store/guidance-the-provision-of-vascular-anaesthesia-services-2019>

Shared decision making

- Patients should have adequate opportunities to discuss treatment with members of the lower limb MDT.
- A shared decision means reviewing the risks and benefits of each intervention and establishing the best option with the patient as an individual.
- When a patient is very frail and/or has no revascularisation options, then amputation or end of life care should be discussed as options to consider.
- Nurses, physiotherapists and amputee councillors have an important role in exploring patient understanding and concerns; this will also ease anxiety.
- Provide written patient information on options, benefits, risks and recovery.

Hospital admission

- Arterial centre must have sufficient bed capacity for new admissions and transfer from networked hospitals.
- Antibiotics should be prescribed according to microbiology protocols. -
 - in the case of diabetic foot disease, in collaboration with the MDFT.
- Screen for infections (i.e. MRSA).
- Provide venous thrombo-embolism assessment and prophylaxis.
- Provide adequate pain control.
- Provide a pressure area assessment, including pressure off-loading.

Revascularisation

Open surgical revascularisation

- Timely revascularisation requires sufficient vascular operating theatre time, including at weekends.
- Surgery should ideally be listed on a properly staffed vascular operating list during normal working hours.
 - this necessitates flexible scheduling based on a clinical risk assessment.
- If procedure on an urgent (unplanned) theatre list, the theatre team must be familiar with vascular surgery, including with endovascular procedures.
- An appropriate level critical care bed should be available, according to preoperative assessment, with emergency access to Level 3 care.
- A consultant vascular surgeon and a consultant anaesthetist, or post-FRCA anaesthetic trainee with vascular experience, should be present (except for local anaesthetic procedures).
- For a complex lower limb bypass consider dual consultant operating and cell salvage; some delay in order for the best team to perform the surgery will be necessary on occasions.
- Be cognisant of endovascular alternatives and adjuvants; use hybrid theatre if these may be required.

Endovascular procedures

- Sufficient interventional radiology room time, including at weekends.
- Sufficient access to a 'hybrid' theatre.
- Lower limb MDT input and governance.
- Suitable devices must be available for procedure, including for endovascular management of complications.
- Use of closure devices must follow locally agreed protocols.
- The whole team must be trained in radiation protection.

Endovascular procedures may be performed via a day care unit.

The three frequent exceptions to this are hospital admission for foot sepsis and/or tissue loss, optimisation of poorly controlled diabetes or living alone.

Post-procedure

- Patient nursed in areas with the expertise to assess limb perfusion and identify complications early.
- Clear plan documented for
 - Anti-thrombotic medication; *(medication prescribed and duration)*
 - GP and community nurses; *(medication and wound care)*
 - MDFT and foot protection teams. *(wound care and/or foot protection)*
- Patient provided with written information that includes
 - What they have had done;
 - Any medication changes;
 - Follow up arranged;
 - 24/7 telephone number to call for advice in case of concern.
- **Admitted patients**, daily consultant review until medically fit to discharge.
- The following multi-professional input
 - Specialist vascular ward nursing;
 - 24/7 surgical cover, with access to a staffed emergency (hybrid) theatre;
 - 24/7 IR cover, with access to a staffed IR room and hybrid theatre;
 - Physiotherapy and allied support therapies (i.e. occupational);
 - Early provision of mobility aids;
 - Physician and pharmacist medication review (twice weekly);
 - Discharge coordinator to address social and rehabilitation needs.
- **Non-admitted patients**, consultant should review pre-discharge.

Recovery

- Access to early specialist vascular review, including for patients repatriated to networked hospitals.
- If open wound, follow up in a multi-disciplinary wound care clinic or by specialist community nursing teams.
- Evidence based graft surveillance and prescribe anti-thrombotic therapy.
- Longer term follow-up, including formal surveillance for lower limb bypass grafts, is recommended.
 - Consider also after complex infra-inguinal endovascular procedure.

Audit

- Vascular networks should have a nominated clinical governance lead.
- Vascular networks should have admin support to improve NVR data quality.
- Job plans should include contracted time for outcome reporting and audit.
- National vascular registry (NVR)
 - report all lower limb procedures; surgery, endovascular and 'hybrid' procedures and amputation;
 - include all day case procedures.
- Reporting ipsilateral amputations following revascularisation allows the NVR to report amputation free survival.

Annual network NVR data should be reviewed locally to determine where improvements can be made.

Acute diabetic foot

- Initial assessment will be by the MDFT, a community nurse or podiatrist.
- Diabetic foot ulcers must be managed in effective collaboration with MDFT.¹
- When ischaemia is a contributory factor urgent revascularisation must be considered (as for patient with CLI).
- MDFT can help when management involves transfers to and from arterial centres and recovery from surgery.
- Ongoing preventive care should be agreed with the MDFT and foot protection team.
- Local MDFTs should ensure that episodes are registered with the National Diabetes Foot Care Audit of England and Wales (NDFA).

Deep foot sepsis

- Patients presenting with deep limb sepsis should have debridement and/or drainage **within 24 hours**.

Non-salvageable foot

- The **VSGBI Major Amputation StAMP** sets out the best practice clinical care pathway for lower limb amputation.
- Amputation should be performed **within 48 hours** of decision.

¹ Nice clinical guidance NG19 underpins this model of combined care

QIF standards

| Management of people with peripheral arterial disease | Target |
|--|--------|
| Commissioned stop smoking services for people diagnosed with PAD | 100% |
| Commissioned supervised exercise therapy for people diagnosed with IC ¹ | > 90% |
| Peripheral MDT core team (see page 5) quorate at formal MDT meetings (<i>over 12 months</i>) | > 95% |
| WIFI, or equivalent, classification system documented in patient medical record for CLI | > 80% |
| Peripheral MDT discussion documented in patient medical record | 100% |
| Evidence of shared decision making in patient medical record | > 80% |
| Written patient information provided | 100% |
| Consultant anaesthetist pre-assessment before open surgical procedures | 100% |
| Consultant in care of elderly and frailty assessment of frail or elderly patients | > 80% |
| Open bypass surgery performed at arterial centre | 100% |
| Major (above ankle) amputation performed at arterial centre | > 95% |
| Revascularisation on planned surgical or interventional radiology list | > 75% |
| Consultant vascular specialist, surgeon or interventional radiologist, present at procedure | 100% |
| Consultant anaesthetist, or post FRCA trainee, present for general anaesthetic procedure | 100% |
| Post revascularisation assessment of procedural success | 100% |
| NVR submission for bypass, angioplasty and major amputation procedure | 100% |

¹ Within 1 hours travel time, except in remote rural areas of the UK and Ireland.

| Referral to secondary care for critical limb ischaemia | Timescale Compliance > 80% | Source |
|--|-------------------------------|--------|
| Referral to vascular specialist | Same day | POVS |
| Triage of referral by vascular specialist | One working day | NHSE |

'Admitted' patient pathway

CLI with rapid progression, deep tissue injury and/or infection, and/or uncontrolled pain.

From receipt of referral

| | | |
|--|-----------------------|---------------|
| Admission or transfer to network arterial centre | ≤ 2 days ¹ | StAMP POVS |
|--|-----------------------|---------------|

From hospital admission

| | | |
|---|------------|----------------|
| Cross-sectional imaging with CTA or MRA | ≤ 12 hours | NHSE NCEPOD |
| Vascular surgeon 'face to face' review | ≤ 14 hours | |

| | | |
|-------------------|-----------------------|------|
| Revascularisation | ≤ 5 days ³ | POVS |
|-------------------|-----------------------|------|

'Non-admitted' patient pathway

CLI with ulcer, minor necrosis, mummified toes, superficial infection or controlled pain.

From receipt of referral

| | | |
|--|-----------------------|------|
| Vascular surgeon 'face to face' review | ≤ 7 days ² | POVS |
|--|-----------------------|------|

From review by specialist

| | | |
|--------------------------------------|----------|------|
| Cross-sectional imaging (CTA or MRA) | ≤ 7 days | POVS |
|--------------------------------------|----------|------|

| | | |
|-------------------|------------------------|------|
| Revascularisation | ≤ 14 days ³ | POVS |
|-------------------|------------------------|------|

¹ Achieving this target necessitates 48 hourly specialist vascular presence, consultant or specialist nurse, at networked hospitals or a written pathway of care for transfer patients to arterial centre for review.

² Achieving this target requires the provision of urgent ('hot') outpatient appointments with clearly defined pathways for urgent imaging, admission and revascularisation if indicated.

³ Intervention should not be deferred more than once for non-medical reasons.

Cardiovascular risk factor modification

Guidelines for risk factor modification in peripheral arterial disease fall in line with standard secondary prevention strategies for other cardiovascular disorders.

Smoking cessation reduces the risk of cardiovascular events. Forms of behavioural counselling in combination with medications such as varenicline are the most effective smoking cessation strategies.

<https://cks.nice.org.uk/smoking-cessation>

Antiplatelet agents, patients should receive secondary prevention with clopidogrel 75mg OD, unless contraindicated or intolerant. Second line is aspirin 75mg OD. Patients on anticoagulation do not benefit from an additional antiplatelet agent.

<https://cks.nice.org.uk/antiplatelet-treatment>

The Compass trial has more recently shown benefit from rivaroxaban 2.5mg BD plus Aspirin.

Lipid modification, patients should be offered secondary prevention with high intensity statin treatment e.g. atorvastatin 80mg OD, if tolerated. Prior to statin initiation, identify and treat causes of secondary hyperlipidaemia, including excessive alcohol intake, uncontrolled diabetes, hypothyroidism, liver disease and nephrotic syndrome. Patients should be counselled about the small risk of side effects, including muscle pains. *The most serious adverse effects of statins are myopathy and rhabdomyolysis. The estimated incidence are 5 and 2 cases per 100,000-person years respectively.*

NICE recommend baseline blood tests including a full lipid profile (cholesterol, HDL, Non-HDL, TG and CK, LFTs, renal function, liver function and HbA1c). Check cholesterol after 3 months, aiming for a reduction in non-HDL-cholesterol of >40%. Check LFTs at 3 and 12 months. Thereafter, yearly check lipids and review for side effects of statins.

<https://cks.nice.org.uk/lipid-modification-cvd-prevention>

Weight management, if Body Mass Index is > 25, consider referral for dietary advice and provide a goal for weight loss.

Diabetes, care should be coordinated with the diabetes team. Aim for HbA1c of <48mmol (higher target if elderly). Manage type 1 and type 2 diabetes according to National guidelines.

<https://cks.nice.org.uk/diabetes-type-1>

<https://cks.nice.org.uk/diabetes-type-2>

Hypertension, blood pressure >140/90 mmHg in the outpatient clinic, or an average ambulatory blood pressure recording of >135/85 mmHg should prompt further assessment and treatment. In patients aged > 80 years, aim for blood pressure of <150/90 mmHg. If blood pressure is elevated, recommend smoking cessation and reduce alcohol and caffeine intake. Exercise programmes, relaxation therapy and reduced salt intake are effective lifestyle approaches to lowering blood pressure. Consider causes of secondary hypertension and treat as appropriate. Severe or resistant hypertension should prompt referral to specialist hypertension services.

<https://cks.nice.org.uk/hypertension-not-diabetic>

First choice medication in patients aged < 55 years is an angiotensin-converting enzyme inhibitor (ACEi) or angiotensin II receptor blocker (ARB) if tolerated. First line for older adults, or Afro-Caribbean patients is a calcium channel blocker (dihydropyridine type - e.g. amlodipine). If intolerant or in need of second or third line agents, it would be appropriate to consider a thiazide diuretic such as indapamide.

Nutrition, diet should broadly be in line with healthy eating recommendations, i.e. five portions of fruit and vegetables each day, meals based on starchy foods such as pasta, bread, rice or potatoes, moderate amounts of dairy products and protein-rich foods. Reduce foods high in fat, sugar and salt.

<https://cks.nice.org.uk/obesity#scenario>

Regular activity and exercise, break up long periods of sitting with light activity. Aim for at least 150 minutes of moderate aerobic activity every week and strength exercises on 2 or more days a week that work all the major muscles (legs, hips, back, abdomen, chest, shoulders and arms).

Abbreviations

| | |
|-------------------|--|
| ABPI | Ankle brachial pressure index, a measure of lower limb arterial perfusion. If the arteries are incompressible then a toe pressure (TP) or transcutaneous oxygen pressure (TcPO ₂) are used to calculate the ischaemia component of the Wifl score. |
| CCG | Clinical commissioning group, responsible for commissioning community peripheral arterial disease management, including supervised exercise therapy for intermittent claudication, community podiatry and multi-disciplinary diabetic foot clinics. |
| CLI | Critical limb ischaemia. The new global vascular guidelines use the term CLTI (Chronic limb-threatening ischaemia) and the European Society of Vascular Surgery use LEAD (Lower extremity arterial disease). |
| CTA | Computed tomography angiography |
| CV | Cardiovascular, refers to the organ systems most frequently affected by atherosclerotic disease, namely the arteries in the brain, the heart, the aorta, the kidneys and the legs. |
| ED | Emergency department |
| RCA / FRCA | Royal College of Anaesthetists / Fellow of the Royal College of Anaesthetists |
| GIRFT | Royal National Orthopaedic Hospital NHS Trust and NHS Improvement 'Get it Right First Time' programme. The vascular surgery programme is led by Professor Mike Horrocks. |
| HYBRID | Operating theatre equipped with fixed imaging equipment for endovascular procedures. The term 'hybrid' is also used to describe combined open and endovascular procedures. |
| IC | Intermittent claudication |
| IR | Interventional radiology |
| MDT | Multi-disciplinary team |
| MDFT | Multi-disciplinary foot care team |
| MRA | Magnetic resonance angiography |
| MRSA | Methicillin resistant staphylococcus aureus |
| NCEPOD | National confidential enquiry into patient outcomes and deaths |
| NDFA | National Diabetes Foot Care Audit of England and Wales |
| NHS, NHSE | National Health Service. NHS England, commissioner for English specialist vascular services. |
| NVR | National Vascular Registry commissioned by the Healthcare Quality Improvement Partnership in collaboration with the Vascular Society of Great Britain and Ireland. |
| PAD | Peripheral arterial disease, occlusive atheromatous disease of the lower limb arteries leading to intermittent claudication, delayed wound healing, ulceration and amputation. |
| POVS | Provision of Vascular Services, Vascular Society (VSGBI) guidance on service delivery. |
| QIF | Quality improvement framework |
| StAMP | A Best Practice Clinical Care Pathway for Major Amputation Surgery. VSGBI Publication 2016. |
| VSGBI | Vascular Society of Great Britain and Ireland |
| Wifl | Society of Vascular Surgery 'Threatened Lower Limb Extremity Classification of chronic limb threatening ischaemia'. This classification incorporates the severity of wounds (0-3), degree of ischaemia (0-3) and degree of foot infection. (0-3). |



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Appendix 12 – Vascular outliers

Vascular Surgery Patients (by specialty/consultants) & not on Ward 3 in YGC – April – October 2019

| Transfers Count | Transfer Date | | | | | | | |
|--------------------------------------|---------------|-----------|-----------|-----------|-----------|-----------|-----------|------------|
| | 2019 | | | | | | | Total |
| Ward | Apr | May | Jun | Jul | Aug | Sep | Oct | |
| Acute Medical Unit (CA125) | | | | | 1 | | | 1 |
| Coronary Care Unit (CA148) | | | | | | 1 | | 1 |
| Day of Surgery Arrivals (CA134) | | | | | 3 | 1 | 2 | 6 |
| Glaslyn Day Unit Ward 19A (CA151) | | | | | 2 | 2 | 2 | 6 |
| Glaslyn Ward 19 (CA119) | | | | | 1 | | | 1 |
| Renal Ward YGC (CA152) | 1 | | | | 1 | | | 2 |
| Same Day Emergency Care (CA158) | | | | | 1 | | | 1 |
| Surgical Assessment Unit YGC (CA140) | 2 | 3 | 2 | 2 | 2 | 8 | 4 | 23 |
| Ward 1 Care Of The Elderly (CA101) | | | | 2 | | | | 2 |
| Ward 12 General Medicine (CA112) | 1 | 1 | | | 1 | | | 3 |
| Ward 2A YGC (CA191) | | | 2 | | | 1 | | 3 |
| Ward 2B YGC (CA153) | | 1 | 5 | 5 | 1 | 5 | 5 | 22 |
| Ward 4 Trauma & Orthopaedics (CA104) | 2 | | | | | | | 2 |
| Ward 5 General Surgery (CA105) | 9 | 2 | 7 | 2 | 6 | 6 | 5 | 37 |
| Ward 7 GM (CA107) | | 2 | 1 | | 3 | | 1 | 7 |
| Ward 8 General Surgery (CA108) | 1 | 5 | 3 | 2 | 4 | 6 | 4 | 25 |
| Total | 16 | 14 | 20 | 13 | 26 | 30 | 23 | 142 |

Vascular Surgery Patients (by specialty/consultants) & not on Dulas Ward in YG – April – October 2018

| Transfers Count | Transfer Date | | | | | | | |
|------------------------------|---------------|-----|-----|-----|-----|-----|-----|-------|
| | 2018 | | | | | | | Total |
| Ward | Apr | May | Jun | Jul | Aug | Sep | Oct | |
| Aran, YG | | | 1 | 2 | | | 1 | 4 |
| Conwy, YG | 10 | 13 | 15 | 18 | 20 | 13 | 13 | 102 |
| Coronary Care Unit, YG | | | | 1 | | | 2 | 3 |
| Ffrancon, YG | 2 | 1 | | | | | | 3 |
| Glaslyn, YG | | | | 1 | | | | 1 |
| Glyder, YG | | | | | 1 | | | 1 |
| Gogarth, YG | 1 | | 3 | 2 | 1 | 2 | 3 | 12 |
| Hebog, YG | | | 1 | 1 | | | | 2 |
| Moelwyn, YG | | | | 1 | 1 | 1 | | 3 |
| Ogwen, YG | 1 | 1 | | 1 | | | | 3 |
| Surgical Assessment Unit, YG | 4 | 2 | 5 | 9 | 2 | 2 | 3 | 27 |
| Tegid, YG | 4 | 1 | 3 | | 1 | 1 | | 10 |

| | | | | | | | | |
|------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|
| Tryfan, YG | 1 | | | 1 | | | | 1 |
| Ogwen B (Side Bay), YG | 1 | | | | | | | 1 |
| Grand Total | 24 | 18 | 28 | 37 | 26 | 19 | 22 | 173 |

Vascular Surgery Patients (by specialty/consultants) & not on Lister / Fleming Ward in YMH – April – October 2018

| Transfers Count | | | | | | | | |
|---|----------|----------|----------|----------|----------|----------|----------|-----------|
| | 2018 | | | | | | | Total |
| Ward | Apr | May | Jun | Jul | Aug | Sep | Oct | |
| Acute Cardiac Unit - Department 12 | | | | | | 1 | | 1 |
| Acute Cardiac Unit CCU - Department 12 | | 1 | | | | | | 1 |
| Arrivals Lounge - Department U4 | 1 | 3 | | 2 | 5 | | | 11 |
| Bonney Ward - Department U10 | | | 1 | | | | | 1 |
| Bromfield Ward - Department U10 | | | | 2 | | | | 2 |
| Cunliffe Ward - Department U2 | | | | | | | 1 | 1 |
| E.N.T Ward - Department 22 | 1 | 1 | | | | | | 2 |
| Glyndwr Ward - Department U2 | | 3 | 3 | 2 | 1 | 3 | 1 | 13 |
| Medical Assessment Unit - Department 12 | 1 | | | | | | | 1 |
| Pantomime Ward - Department U9 | | | | 1 | | | 1 | 2 |
| Surg. Assess Unit - Department U2 | 3 | 1 | | 2 | 2 | 1 | 4 | 13 |
| Grand Total | 6 | 9 | 4 | 9 | 8 | 5 | 7 | 48 |

Appendix 13 - Theatre cancellations

| Site | Time period | Total number of cancellations | ITU / HDU beds unavailable | Ward beds unavailable |
|-------------------------|---------------------------|-------------------------------|----------------------------|-----------------------|
| All sites cancellations | April 2018 – October 2018 | 127 | 9 | 12 |
| All sites cancellations | April 2019 – October 2019 | 116 | 24 | 3 |

Theatre Cancellations April 2018 – October 2018

| Count of Patient Identifier | Calendar Year Month | | | | | | | |
|--|---------------------|-----------|-----------|-----------|-----------|-----------|-----------|-------------|
| Cancellation Reason | 2018-04 | 2018-05 | 2018-06 | 2018-07 | 2018-08 | 2018-09 | 2018-10 | Grand Total |
| 1010 PRE-EXISTING MEDICAL CONDITION | 1 | 1 | | 1 | 1 | | | 4 |
| 1020 UNFIT WITH ILLNESS (HOSP CANC) | 2 | 3 | 1 | 3 | 1 | | 2 | 12 |
| 1030 OP NOT NECESSARY (HOSP CANC) | | 2 | | | | 1 | 1 | 4 |
| 1040 UNSUITABLE FOR DAY SURGERY | | | | 1 | | | | 1 |
| 1050 CHANGE OF PLAN BY SURGEON | 3 | 1 | | 1 | | 1 | | 6 |
| 1051 INAPPROPRIATE THEATRE FOR OP | | | 1 | | | | | 1 |
| 1053 NOT ADEQUATELY PREP CANC BY SU | | | | 1 | | | 2 | 3 |
| 1054 NOT ADEQUATELY PREP CAN BY ANA | 2 | | | | 1 | | | 3 |
| 2010 ICU/HDU/BEDS UNAVAILABLE | | | 4 | 1 | | 1 | 3 | 9 |
| 2020 WARD BEDS UNAVAILABLE | 3 | 1 | 1 | 1 | 2 | 1 | 3 | 12 |
| 2030 EMERGENCIES / TRAUMA | 3 | 4 | 7 | 1 | 3 | 3 | 6 | 27 |
| 2040 LIST OVERRUN/ COMPLICATIONS | | 2 | 1 | 2 | 2 | 3 | 2 | 12 |
| 2051 SURGEON UNAVAILABLE OTHER | | | 1 | | 1 | 1 | 2 | 5 |
| 2053 ANAES UNAVAILABLE OTHER | | | | | | 2 | 2 | 4 |
| 2060 EQUIPMENT UNAVAILABLE | | | | | | | 1 | 1 |
| 2070 ADMINISTRATION ERROR - PT AWARE | 1 | | 1 | | | | | 2 |
| 2082 HOSPITAL TRANSPORT | | | | 1 | | | | 1 |
| 3010 PRE-OP GUIDANCE NOT FOLLOWED | | | | 1 | | | | 1 |
| 3020 APPOINTMENT NOT CONVENIENT | | | | 1 | 1 | | 1 | 3 |
| 3030 UNFIT FOR SURGERY PT CANCEL | 1 | 1 | | 1 | | | 1 | 4 |
| 3040 PROCEDURE NOT WANTED BY PATIEN | | 1 | | | | 1 | | 2 |
| 3050 DNA | | 1 | | | 1 | | 1 | 3 |
| 4020 PROCEDURE PERFORMED WARD | | | 1 | | | | | 1 |
| 4030 BOOKING AMENDMENT | | 1 | | | | | | 1 |
| 4050 ADMINISTRATION ERROR - PT UNAWARE | | 1 | | | | | | 1 |
| NULL | 2 | 1 | | | 1 | | | 4 |
| Grand Total | 18 | 20 | 18 | 16 | 14 | 14 | 27 | 127 |

Theatre Cancellations April 2019 – October 2019

| Count of Patient Identifier | Calendar Year Month | | | | | | | |
|--------------------------------------|---------------------|-----------|-----------|-----------|-----------|-----------|-----------|-------------|
| Cancellation Reason | 2019-04 | 2019-05 | 2019-06 | 2019-07 | 2019-08 | 2019-09 | 2019-10 | Grand Total |
| 1010 PRE-EXISTING MEDICAL CONDITION | | 1 | | | | | | 1 |
| 1020 UNFIT WITH ILLNESS (HOSP CANC) | | 1 | 2 | 3 | | 1 | | 7 |
| 1030 OP NOT NECESSARY (HOSP CANC) | | 1 | 1 | 1 | | 1 | 1 | 5 |
| 1040 UNSUITABLE FOR DAY SURGERY | | | | | | | 1 | 1 |
| 1050 CHANGE OF PLAN BY SURGEON | 2 | 2 | 1 | | | 4 | | 9 |
| 1053 NOT ADEQUATELY PREP CANC BY SU | | | | 3 | 1 | | 1 | 5 |
| 1054 NOT ADEQUATELY PREP CAN BY ANA | | | | 1 | 1 | | | 2 |
| 2010 ICU/HDU/BEDS UNAVAILABLE | 2 | 1 | 7 | 6 | 5 | 3 | | 24 |
| 2020 WARD BEDS UNAVAILABLE | | 1 | | | | 2 | | 3 |
| 2030 EMERGENCIES / TRAUMA | 3 | | 3 | | 1 | 2 | 1 | 10 |
| 2040 LIST OVERRUN/ COMPLICATIONS | | | 1 | 3 | | 1 | 3 | 8 |
| 2051 SURGEON UNAVAILABLE OTHER | | | | 1 | | | | 1 |
| 2053 ANAES UNAVAILABLE OTHER | | | | | | | 1 | 1 |
| 2060 EQUIPMENT UNAVAILABLE | | | | 2 | | | | 2 |
| 2070 ADMINISTRATION ERROR - PT AWARE | | 2 | | | | 1 | | 3 |
| 2071 LIST OVERBOOKED | 1 | 1 | | | | | 1 | 3 |
| 2083 PROCEDURE PERFORMED ELSEWHERE | | | | | 1 | | | 1 |
| 3010 PRE-OP GUIDANCE NOT FOLLOWED | | | | | 1 | 1 | | 2 |
| 3020 APPOINTMENT NOT CONVENIENT | 1 | | 2 | 1 | | 1 | | 5 |
| 3030 UNFIT FOR SURGERY PT CANCEL | | 1 | 1 | 2 | 2 | | | 6 |
| 3040 PROCEDURE NOT WANTED BY PATIEN | | | 2 | 1 | | 1 | 1 | 5 |
| 3050 DNA | | | | | | | 1 | 1 |
| 4000 OP BROUGHT FOWARD NON REPORTBL | | | | | | 1 | | 1 |
| 4010 STANDBY PATIENT NOT BROUGHT IN | 1 | | | | | | | 1 |
| 4030 BOOKING AMENDMENT | 1 | | | 2 | 1 | 1 | | 5 |
| NULL | | | | 1 | 2 | 1 | | 4 |
| Grand Total | 11 | 11 | 20 | 27 | 15 | 21 | 11 | 116 |

Appendix 14 - Emergency theatre activity

| April – October 2018 | | | |
|----------------------|--------------------|-------------|-------|
| Sender organisation | When | Time Band | Total |
| Centre | Normal Hours | 08:00-17:00 | 15 |
| | Normal Hours Total | | 15 |
| | Out of Hours | 17:00-22:00 | 1 |
| | | 22:00-00:00 | 1 |
| | Out of Hours Total | | 2 |
| | Weekend | 08:00-17:00 | 1 |
| | Weekend Total | | 1 |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| Cent Total | | | 18 |
| East | Normal Hours | 08:00-17:00 | 99 |
| | Normal Hours Total | | 99 |
| | Out of Hours | 00:00-08:00 | 2 |
| | | 17:00-22:00 | 3 |
| | Out of Hours Total | | 5 |
| | Weekend | 00:00-08:00 | 1 |
| | | 08:00-17:00 | 4 |

| April – October 2019 | | | |
|----------------------|--------------------|-------------|-------|
| Sender organisation | When | Time Band | Total |
| Centre | Bank Holiday | 08:00-17:00 | 3 |
| | Bank Holiday Total | | 3 |
| | Normal Hours | 08:00-17:00 | 155 |
| | Normal Hours Total | | 155 |
| | Out of Hours | 00:00-08:00 | 6 |
| | | 17:00-22:00 | 18 |
| | | 22:00-00:00 | 1 |
| | Out of Hours Total | | 25 |
| | Weekend | 00:00-08:00 | 3 |
| | | 08:00-17:00 | 21 |
| | | 17:00-22:00 | 3 |
| | Weekend Total | | 27 |
| Cent Total | | | 210 |
| East | Normal Hours | 08:00-17:00 | 21 |
| | Normal Hours Total | | 21 |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

| | | | |
|-------------|--------------------|-------------|-----|
| | | 17:00-22:00 | 3 |
| | Weekend Total | | 8 |
| East Total | | | 112 |
| West | Normal Hours | 08:00-17:00 | 56 |
| | Normal Hours Total | | 56 |
| | Out of Hours | 00:00-08:00 | 2 |
| | | 17:00-22:00 | 8 |
| | | 22:00-00:00 | 3 |
| | Out of Hours Total | | 13 |
| | Weekend | 00:00-08:00 | 1 |
| | | 08:00-17:00 | 7 |
| | | 17:00-22:00 | 3 |
| | | 22:00-00:00 | 2 |
| | Weekend Total | | 13 |
| West Total | | | 82 |
| Grand Total | | | 212 |

| | | | |
|-------------|--------------------|-------------|-----|
| | | | |
| | | | |
| East Total | | | 21 |
| West | Normal Hours | 08:00-17:00 | 4 |
| | Normal Hours Total | | 4 |
| | Out of Hours | 17:00-22:00 | 1 |
| | | | |
| | | | |
| | Out of Hours Total | | 1 |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| West Total | | | 5 |
| Grand Total | | | 236 |

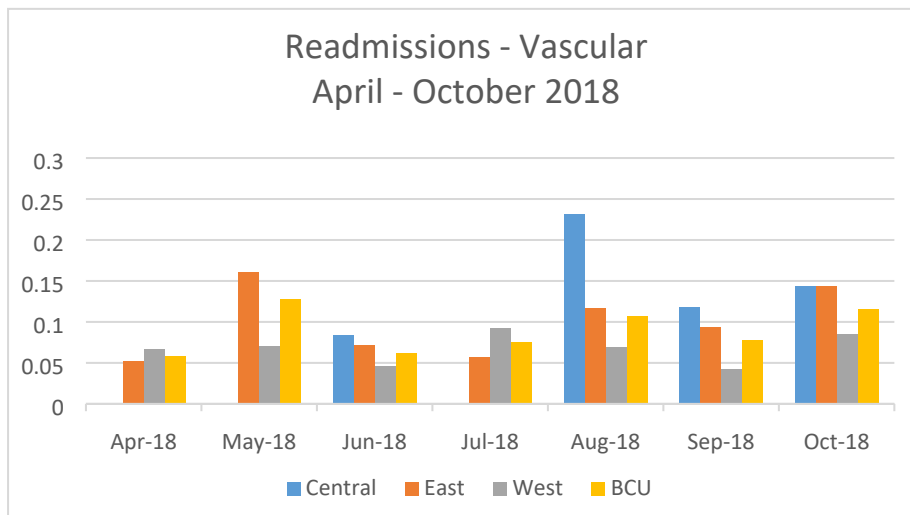
Appendix 15 – Readmissions within 30 days

Readmissions within 30 days all sites - April – October 2018

| | April | May | June | July | August | September | October |
|----------|-------|--------|-------|-------|--------|-----------|---------|
| BCU 2018 | 5.83% | 12.71% | 6.11% | 7.48% | 10.69% | 7.81% | 11.48% |
| BCU 2019 | 8.16% | 13.68% | 5.61% | 8.05% | 14.06% | 9.72% | 11.51% |

Readmissions within 30 days all sites - April – October 2018

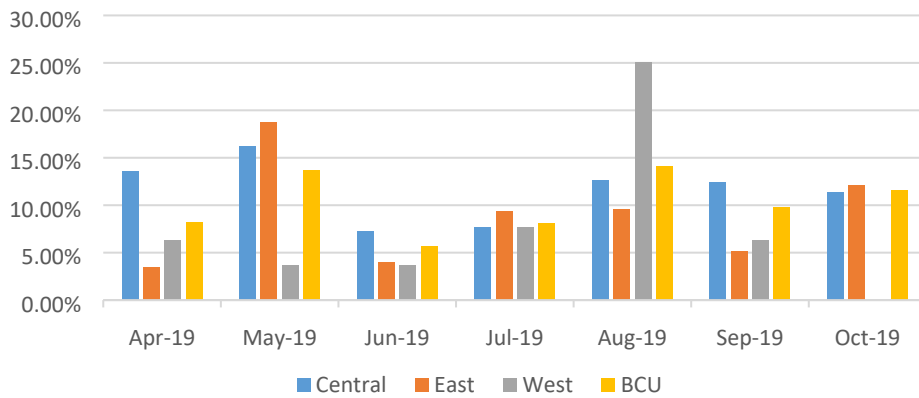
| | Apr-18 | May-18 | Jun-18 | Jul-18 | Aug-18 | Sep-18 | Oct-18 |
|---------|--------|--------|--------|--------|--------|--------|--------|
| Central | | | 8.33% | | 23.08% | 11.77% | 14.29% |
| East | 5.17% | 16% | 7.14% | 5.66% | 11.67% | 9.38% | 14.29% |
| West | 6.67% | 6.98% | 4.62% | 9.26% | 6.90% | 4.26% | 8.48% |
| BCU | 5.83% | 12.71% | 6.11% | 7.48% | 10.69% | 7.81% | 11.48% |



Readmissions within 30 days all sites - April – October 2019

| | Apr-19 | May-19 | Jun-19 | Jul-19 | Aug-19 | Sep-19 | Oct-19 |
|---------|--------|--------|--------|--------|--------|--------|--------|
| Central | 13.51% | 16.22% | 7.27% | 7.69% | 12.64% | 12.36% | 11.32% |
| East | 3.45% | 18.75% | 4% | 9.38% | 9.52% | 5.13% | 12.12% |
| West | 6.25% | 3.70% | 3.70% | 7.69% | 25% | 6.25% | |
| BCU | 8.16% | 13.68% | 5.61% | 8.05% | 14.06% | 9.72% | 11.51% |

Readmissions - Vascular April - October 2019



Appendix 16 – Major procedures

Major procedures in Centre April – October 2019

| Major procedures | Number undertaken April – October 2019 |
|-------------------------|---|
| AAA Repair – Open | 16 |
| AAA Repair - EVAR | 11 |
| Carotid endarterectomy | 11 |
| Bypasses | 41 |

Major procedures in West and East April – October 2018

| Major procedures | Number undertaken April – October 2018 East | Number undertaken April – October 2018 West |
|-------------------------|--|--|
| AAA Repair – Open | 2 | 14 |
| AAA Repair - EVAR | 12 | 8 |
| Carotid endarterectomy | 14 | 1 |
| Bypasses | 25 | 4 |

Appendix 18 - Amputations

| 1st April to 31st October - 2018 | BCU Amputations by Type | 2018 April to October | | | | | | | |
|--------------------------------------|--|-----------------------|-----------|-----------|----------|-----------|----------|----------|-----------|
| Hospital Name | Amputation | 2018-04 | 2018-05 | 2018-06 | 2018-07 | 2018-08 | 2018-09 | 2018-10 | Total |
| Ysbyty Gwynedd | X09: AMPUTATION OF LEG | 1 | | 1 | | 3 | | | 5 |
| | X10: AMPUTATION OF FOOT | 1 | 3 | 1 | 1 | | | 1 | 7 |
| | X11: AMPUTATION OF TOE | 4 | 3 | 4 | 3 | 3 | 1 | 4 | 22 |
| Ysbyty Gwynedd Total | | 6 | 6 | 6 | 4 | 6 | 1 | 5 | 34 |
| Ysbyty Glan Clwyd | X09: AMPUTATION OF LEG | | | 1 | | | | | |
| | X10: AMPUTATION OF FOOT | | | | | | | | |
| | X10: AMPUTATION OF FOOT & X11: AMPUTATION OF TOE | | | | 1 | | | | |
| | X11: AMPUTATION OF TOE | | | 2 | | | | | |
| Ysbyty Glan Clwyd Total | | | | 3 | 1 | | | | 4 |
| Wrexham Maelor Hospital | X09: AMPUTATION OF LEG | 2 | 2 | | | 2 | 2 | 2 | 10 |
| | X09: AMPUTATION OF LEG & X10: AMPUTATION OF FOOT | | 2 | | | | | | 2 |
| | X09: AMPUTATION OF LEG & X11: AMPUTATION OF TOE | 1 | | | 1 | | | | 2 |
| | X10: AMPUTATION OF FOOT | | 1 | | | 1 | | | 2 |
| | X11: AMPUTATION OF TOE | 1 | 7 | 2 | | 1 | 2 | 1 | 14 |
| Wrexham Maelor Hospital Total | | 4 | 12 | 2 | 1 | 4 | 4 | 3 | 30 |
| Grand Total | | 10 | 18 | 11 | 6 | 10 | 5 | 8 | 68 |

| 1st April to 31st October - 2019 | BCU Amputations by Type | 2019 April to October | | | | | | | |
|----------------------------------|--|-----------------------|----------|----------|-----------|-----------|----------|-----------|-----------|
| Hospital Name | Amputation | 2019-04 | 2019-05 | 2019-06 | 2019-07 | 2019-08 | 2019-09 | 2019-10 | Total |
| Ysbyty Gwynedd | X09: AMPUTATION OF LEG | | | | | | | | |
| | X10: AMPUTATION OF FOOT | 1 | | | | | | | |
| | X11: AMPUTATION OF TOE | 2 | 1 | 4 | 2 | 1 | | | 10 |
| Ysbyty Gwynedd Total | | 3 | 1 | 4 | 2 | 1 | | | 11 |
| Ysbyty Glan Clwyd | X09: AMPUTATION OF LEG | 3 | 2 | 5 | 4 | 8 | 1 | 9 | 32 |
| | X10: AMPUTATION OF FOOT | 2 | | | 2 | 1 | | | 5 |
| | X10: AMPUTATION OF FOOT & X11: AMPUTATION OF TOE | | 1 | | | | | | 1 |
| | X11: AMPUTATION OF TOE | 3 | 4 | 3 | 7 | 7 | 3 | 9 | 36 |
| Ysbyty Glan Clwyd Total | | 8 | 7 | 8 | 13 | 16 | 4 | 18 | 74 |

| | | | | | | | | | |
|--------------------------------------|--|----|---|----|----|----|---|----|----|
| Wrexham Maelor Hospital | X09: AMPUTATION OF LEG | 1 | 1 | | | | | | 2 |
| | X09: AMPUTATION OF LEG & X10: AMPUTATION OF FOOT | | | | | | | | 0 |
| | X09: AMPUTATION OF LEG & X11: AMPUTATION OF TOE | | | | | | | | 0 |
| | X10: AMPUTATION OF FOOT | 1 | | 1 | | | | | 2 |
| | X11: AMPUTATION OF TOE | 2 | | | | 2 | | | 4 |
| Wrexham Maelor Hospital Total | | 4 | 1 | 1 | | 2 | | | 8 |
| Grand Total | | 15 | 9 | 13 | 15 | 19 | 4 | 18 | 93 |

Appendix 19 – Outpatient attendances – new and review

2018

Outpatients

Attended

| | | 2018 | | | | | | | Grand Total |
|---------------------|--------|------------|------------|------------|------------|------------|------------|------------|-------------|
| New / Review | Region | Apr | May | Jun | Jul | Aug | Sep | Oct | |
| New | West | 46 | 62 | 76 | 36 | 59 | 30 | 66 | 375 |
| | Cent | 80 | 98 | 86 | 73 | 51 | 56 | 59 | 503 |
| | East | 56 | 92 | 62 | 82 | 72 | 45 | 45 | 454 |
| New Total | | 182 | 252 | 224 | 191 | 182 | 131 | 170 | 1332 |
| Review | West | 75 | 41 | 66 | 40 | 78 | 59 | 87 | 446 |
| | Cent | 108 | 126 | 138 | 135 | 87 | 107 | 89 | 790 |
| | East | 112 | 171 | 83 | 137 | 170 | 65 | 98 | 836 |
| Review Total | | 295 | 338 | 287 | 312 | 335 | 231 | 274 | 2072 |
| Grand Total | | 477 | 590 | 511 | 503 | 517 | 362 | 444 | 3404 |

2019

Outpatients

Attended

| | | 2019 | | | | | | | Grand Total |
|---------------------|--------|------------|------------|------------|------------|------------|------------|------------|-------------|
| New / Review | Region | Apr | May | Jun | Jul | Aug | Sep | Oct | |
| New | West | 48 | 64 | 64 | 69 | 42 | 53 | 70 | 410 |
| | Cent | 75 | 78 | 65 | 71 | 44 | 43 | 74 | 450 |
| | East | 47 | 59 | 73 | 69 | 48 | 81 | 66 | 443 |
| New Total | | 170 | 201 | 202 | 209 | 134 | 177 | 210 | 1303 |
| Review | West | 56 | 82 | 65 | 68 | 57 | 72 | 70 | 470 |
| | Cent | 80 | 97 | 140 | 151 | 78 | 104 | 165 | 815 |
| | East | 88 | 117 | 120 | 125 | 140 | 127 | 124 | 841 |
| Review Total | | 224 | 296 | 325 | 344 | 275 | 303 | 359 | 2126 |
| Grand Total | | 394 | 497 | 527 | 553 | 409 | 480 | 569 | 3429 |

Appendix 20 – PTL Forecast end March 36> weeks 2020

| Count of CRN | | Weeks Wait | Weeks Wait |
|--------------------|---------------|------------|------------|
| | | 36-51 | 52+ |
| Division | New DSU stage | | |
| Cent | 1 | 83 | 4 |
| | 2 | 22 | 16 |
| | 3 | 30 | 58 |
| | 4 | 13 | 83 |
| Cent Total | | 148 | 161 |
| East | 1 | 2 | |
| | 2 | 31 | 3 |
| | 3 | 4 | 2 |
| | 4 | 31 | 37 |
| East Total | | 68 | 42 |
| West | 1 | 38 | |
| | 2 | 19 | 1 |
| | 3 | 1 | |
| | 4 | 2 | |
| West Total | | 60 | 1 |
| Grand Total | | 276 | 204 |

**Vascular
March'19
Central
36>**

| | |
|--------------|------------|
| Stage 1 | 32 |
| Stage 2 | 8 |
| Stage 3 | 9 |
| Stage 4 | 150 |
| Total | 199 |

**Vascular
March'20
Central
36>**

| | |
|--------------|------------|
| Stage 1 | 87 |
| Stage 2 | 38 |
| Stage 3 | 88 |
| Stage 4 | 96 |
| Total | 309 |

**Vascular
March'19
East
36>**

| | |
|--------------|------------|
| Stage 1 | 2 |
| Stage 2 | 55 |
| Stage 3 | 13 |
| Stage 4 | 42 |
| Total | 112 |

**Vascular
March'20
East
36>**

| | |
|--------------|----|
| Stage 1 | 2 |
| Stage 2 | 34 |
| Stage 3 | 6 |
| Stage 4 | 68 |
| Total | |

**Vascular
March'19**

| | |
|---------|---|
| Stage 1 | 1 |
|---------|---|

**Vascular
March'20**

| | |
|---------|----|
| Stage 1 | 11 |
|---------|----|

West
36>

| | |
|------------|----|
| Stage 2 | 19 |
| Stage 3 | 11 |
| Stage 4 | 6 |
| Total | 37 |

West 36>

| | |
|------------|----|
| Stage 2 | 43 |
| Stage 3 | 18 |
| Stage 4 | 5 |
| Total | 76 |

**Appendix 21 – Activity lost due to consultants not participating in the on-call rota
April to September 2019**

| Duties covered 10/04/19 - 30/09/19 | | | | | |
|------------------------------------|------|----------------|-----------------------|-------------|-------------------|
| Duty | Rate | Hours per duty | Number of occurrences | Total hours | Total cost |
| Consultant of the week | 70 | 8.5 | 46 | 391 | £27,370.00 |
| Surgeon of the day | 70 | 8.5 | 26 | 221 | £15,470.00 |
| Overnight on-call | 75 | 15 | 22 | 330 | £24,750 |
| Grand total | | | 94 | 942 | £67,590.00 |

Vascular RTT and FUWL review and actions

| Themes of Action | ACTION | Outcome | Owner | RAG (progress) |
|---|--|---|-----------------------|---------------------------|
| Demand Management | Review and streamlining of common referral pathways | Identification of opportunities for streamlining pathways. Improved patient experience Development of referral criteria. Shortened pathways | CD vascular | AAA pathway in discussion |
| Improve capacity / improve productivity To ensure sufficient capacity to meet demand and to sustain a compliant performance to national waiting times standards | Is capacity in balance with demand? Complete specialty level Demand & Capacity to identify sustainable gap as well as gap for backlog clearance | Improve overall waiting position | DGMs Vascular Manager | Capacity planning |
| Improve capacity / improve productivity | Stage 1: Achieving core capacity: <ul style="list-style-type: none"> - Review of hospital cancellations (HIC) and reasons and scrutiny of capacity planning - Review of conversion rate from first OPD to diagnostic / review / surgery - Review of working practices of consultants including reducing follow-ups to clinic through improving numbers of office based decisions - Booking process including DNAs - Review of consultant and middle grade job plans - Implementation of nurse led clinics – ANP and CNS - Implementation of middle grade streams | Improve overall waiting position | DGMs Vascular Manager | |
| | Implementation of clinical harm review process for patient >52 week waits | | CD | |

| | | | | |
|---|--|---|------------------------------|-------------------------------------|
| | | | | |
| Demand Management | Review of referrals and triage process to include quality of referrals and opportunities to manage in primary care | Improved demand into the service | CD / Vascular Manager | |
| Improve capacity / improve productivity | Stage 3 MOPs – Utilisation/efficiency of MOP lists across the Health Board | Improve overall waiting position | Ops | |
| Improve capacity / improve productivity | Stage 4 Review of INNUs: Are patients seen and treated within the agreed Health Board INNU policy. Review clinics (ROTT) and one stop shop with scanning. Identified theatre capacity required to list. | Improve overall waiting position | CD vascular | Review of cases undertaken. With CD |
| Data Quality / Improve productivity | Follow up waiting list <ul style="list-style-type: none"> - Review and set up systematic validation for vascular across BCUHB including follow up waiting list position - Improve scheduling based on clinical urgency and waiting time chronology - Implement See on Symptoms (SoS) and Patient Initiated Contact (PIC) | <ul style="list-style-type: none"> - Follow up validation - Reduce follow ups - Reduce follow up waiting time | DGMs | |
| Increase capacity / improve productivity | Review of Pre-operative assessment capacity & processes | <ul style="list-style-type: none"> - Plans to address capacity shortfalls - Better scheduling of theatre lists - Reduction in number of on the day cancellations | POAC matron Vascular Manager | |
| Increase capacity / improve productivity | Review scheduling and theatre utilisation/efficiency. Improving the utilisation of the current capacity within theatres. Increasing the routine throughput on the theatre L lists. Theatre utilisation: <ul style="list-style-type: none"> - Late starts - Short notice cancellations - Early finishes | <ul style="list-style-type: none"> - Reduction in number of elective patient cancellations - Increased throughput and theatre utilisation | DGMs Vascular manager | |

| | | | | |
|---|--|--|--|--|
| Increase capacity / improve productivity | Identification and implementation of schemes to release follow up capacity, e.g virtual clinics, one stop clinics | <ul style="list-style-type: none"> - Reduced waiting times for follow up appointments - Follow up capacity freed up for patients who need face to face consultations | | |
| Data Quality | <ul style="list-style-type: none"> - Improve information reporting arrangements: Ensuring use of vascular 107 coding for all sites from April 2020. - Data quality – Despite significant preparatory work, the introduction of the new clinical information system has led to reductions in data quality as far as waiting times reporting is concerned. | | | |
| Improve productivity | Develop and implement recovery trajectories to support the achievement of RTT compliance and improve the FUWL. | Accurate visibility of performance against plan. Ability to flex scheduling to achieve desired performance outcome | | |
| Improve productivity | Monitoring – Weekly PTL on all sites including follow up Agreed KPIs | | | |
| Finance | Work with finance team to cost the actions within the plan and benchmark against the financial consequence of not recovering the position | | | |

Risks and Mitigations

| Issue / Risk | Mitigation / Controls | Risk Score | Current status |
|--|---|------------|----------------|
| Capacity shortfalls restricting the ability to manage demand and reduce backlogs | Middle grades to support consultant clinics to avoid closures with A/L etc. | 20 | Open |

| | | | |
|---|--|----|------|
| | Seeking out additional space / nursing support. | | |
| Inability to optimise theatre session utilisation and efficiency resulting in wasted capacity | There is a risk that the hybrid theatre utilisation will not be optimised. This may be caused by the process of listing patients and by delays in starting times due to multiple factors. This would impact negatively on patient care. Agreement with theatres and anaesthetics regarding listing needed. Listing routine minors on lists to increase utilisation | 16 | Open |
| Junior doctor cover across sites for in hours service | There is a risk that there is insufficient junior doctor cover for the vascular service in hours. Impacting outpatient capacity on all sites. | 20 | Open |

Appendix 23 – Follow up waiting list

Vascular FUWL as at March 2020

| Sender Organisation | Not Overdue | 0-25 PC | 25-50 PC | 50-100 PC | Over 100 PC | Grand Total |
|---------------------|-------------|---------|----------|-----------|-------------|-------------|
| West Total | 296 | 77 | 55 | 91 | 627 | 1146 |
| Cent Total | 183 | 48 | 32 | 69 | 609 | 941 |
| East Total | 239 | 26 | 25 | 28 | 65 | 383 |
| Grand Total | 718 | 151 | 112 | 188 | 1301 | 2470 |

Vascular FUWL as at March 2019

| Sender Organisation | Not Overdue | 0-25 PC | 25-50 PC | 50-100 PC | Over 100 PC | Grand Total |
|---------------------|-------------|---------|----------|-----------|-------------|-------------|
| West Total | 389 | 85 | 32 | 83 | 538 | 1127 |
| Cent Total | 188 | 33 | 33 | 41 | 447 | 742 |
| East Total | 326 | 29 | 39 | 32 | 82 | 508 |
| Grand Total | 903 | 147 | 104 | 156 | 1067 | 2377 |

Appendix 24 - Concerns

Concerns received April – October 2018

| Themes | YGC | YMW | YG |
|---------------------------------------|-----|-----|----|
| Cancellation of surgery / appointment | | | 2 |
| Plan of care | 1 | | 1 |
| Transfer of care | | 1 | |
| Concern regarding treatment and care | | 1 | |
| Total | 1 | 2 | 3 |

Concerns received April – October 2019

| Themes | YGC | YMW | YG |
|--|-----|-----|----|
| Appointment waiting times | 7 | | |
| Waiting time for operation | | 1 | |
| Cancellation of surgery / appointment | | 3 | |
| Plan of care | 1 | 1 | |
| Transfer of care | | | |
| Accessing services | 1 | | |
| Clarity of which consultant will take over following resignation | | | 2 |
| Concern regarding treatment and care | 2 | | 1 |
| Consultant retention | | | 1 |
| Funding for follow up outside the Health Board | | 1 | |
| Total | 11 | 6 | 4 |

Survey: Open Ended**Date Period:** 1st Apr 19 to 31st Dec 19**Locations:** Ward 3

☉What was good about your care?

| Response | Location | Response Time |
|--|----------|--------------------------|
| All staff couldn't do more for me. Very grateful to all consultants, nurses on Ward 3. | Ward 3 | 31st Jul 19, 1:28:28 am |
| Excellent staff could not do enough for me. Thank you all. | Ward 3 | 8th Aug 19, 12:54:32 am |
| All the staff were there to help when needed, when in pain or when just down. Thanks for looking after me. | Ward 3 | 8th Aug 19, 1:02:57 am |
| All staff were compassionate and caring. Exceptional. | Ward 3 | 4th Sep 19, 6:22:23 pm |
| All staff were great. Helpful, kind and caring. | Ward 3 | 4th Sep 19, 6:32:29 pm |
| I cannot understate my appreciation for the way I have been treated. Everyone, doctors and all staff, have been wonderful to me. | Ward 3 | 4th Sep 19, 6:40:57 pm |
| First class service could not have been better. Mr. Alan Stussi | Ward 3 | 11th Sep 19, 1:24:18 am |
| The quality of amenities; friendliness of staff along with a good sense of humour. Quality of nurses' attention and help. Doctors' information passed on to patient. | Ward 3 | 11th Sep 19, 1:33:00 am |
| All the staff from cleaner to consultant, were kind, considerate and caring, all were friendly and willing to oblige. A friendly and professional approach at all times. Thank you. | Ward 3 | 19th Sep 19, 1:39:08 am |
| All the staff were excellent and very helpful of all times. A credit to Wales NHS. Thank you. | Ward 3 | 3rd Oct 19, 1:06:34 am |
| Nothing. | Ward 3 | 3rd Oct 19, 1:21:13 am |
| The staff at Bodelwyddan were excellent at all times. | Ward 3 | 3rd Oct 19, 1:29:50 am |
| The staff, all the ward were out of this world. [unreadable comment], Sue, Colin, Fay especially for sorting things quickly. [unreadable comment] for showing me the respect but it's their all. Staff were brilliant. | Ward 3 | 3rd Oct 19, 1:37:34 am |
| Have a room on my own. | Ward 3 | 3rd Oct 19, 4:15:16 am |
| They looked after me very well. | Ward 3 | 16th Oct 19, 12:27:28 am |
| All. | Ward 3 | 23rd Oct 19, 2:58:22 am |
| Being looked after by all staff on ward 3. Can't thank them enough. | Ward 3 | 23rd Oct 19, 3:44:05 am |
| Very caring staff who all are a credit to the NHS. Always there at the drop of a hat to make you comfortable. Their medical experience is superb with manners and thought of the patient. Well done. | Ward 3 | 23rd Oct 19, 6:38:22 am |

| | | |
|---|--------|--------------------------|
| Kind nature of staff. Willingness to accommodate. | Ward 3 | 23rd Oct 19, 6:45:39 am |
| Well cared for and looked after. | Ward 3 | 7th Nov 19, 4:26:31 am |
| I felt safe in their hands. Explained things when I needed. | Ward 3 | 7th Nov 19, 4:33:29 am |
| Both the doctors and nursing staff were friendly and very willing to explain. The attitude and motivation could not be faulted. | Ward 3 | 7th Nov 19, 4:40:30 am |
| Very pleasant staff at all levels. | Ward 3 | 7th Nov 19, 4:46:13 am |
| The staff were always very helpful and in my opinion very professional. "Excellent care". | Ward 3 | 7th Nov 19, 7:13:21 am |
| Nothing, fully enjoyed my stay. | Ward 3 | 14th Nov 19, 10:24:03 pm |
| Every member of staff were fantastic. | Ward 3 | 14th Nov 19, 10:33:21 pm |
| The care the nurses gave me. 10-10. | Ward 3 | 21st Nov 19, 1:15:14 pm |
| Excellent care during my stay. | Ward 3 | 29th Nov 19, 9:36:57 pm |
| The staff is helpful, always with a smile and nothing is too much trouble. The NHS should be very proud of them all. | Ward 3 | 5th Dec 19, 12:58:53 pm |
| Well treated. | Ward 3 | 5th Dec 19, 1:07:12 pm |
| The treatment was excellent, couldn't get better. The staff was excellent, couldn't get better, always with a smile. | Ward 3 | 5th Dec 19, 1:13:57 pm |
| The staff. | Ward 3 | 5th Dec 19, 1:22:35 pm |
| I was frightened and stressed coming into hospital but was put at ease by the nursing staff. Great bunch. | Ward 3 | 5th Dec 19, 1:28:46 pm |
| Extremely friendly staff. | Ward 3 | 5th Dec 19, 1:37:49 pm |
| All staff were helpful beyond. | Ward 3 | 11th Dec 19, 7:22:55 pm |
| Everything, I have no complaint about any of my treatment. | Ward 3 | 11th Dec 19, 7:29:43 pm |
| Always friendly and happy staff. | Ward 3 | 11th Dec 19, 7:38:42 pm |
| All staff hard working, always with a smile. Nothing too much trouble. The NHS should be proud of them. First time patient. | Ward 3 | 11th Dec 19, 7:46:38 pm |

Locations: Ward 3

Was there anything that could be improved?

| Response | Location | Response Time |
|--|----------|--------------------------|
| Very minor issue, TV faulty. | Ward 3 | 4th Sep 19, 6:40:57 pm |
| Possibly my own criticism was with the food. There was an excellent choice but always everything had a strange aura to it. Things like tomato, potato, lettuce and cucumber had the same 'smell' which really put me off eating for 3 days. The hot chocolate was brilliant! | Ward 3 | 11th Sep 19, 1:33:00 am |
| The food for me, was a bit overcooked, veg. especially. Wholegrain rice preferred and wholemeal bread, as opposed to brown/white, but on the whole the food was OK and varied. | Ward 3 | 19th Sep 19, 1:39:08 am |
| Not to my limited experience. | Ward 3 | 3rd Oct 19, 1:06:34 am |
| Yes, the food. | Ward 3 | 3rd Oct 19, 1:21:13 am |
| This model should be in every hospital. | Ward 3 | 3rd Oct 19, 1:37:34 am |
| More remote controls for TV. | Ward 3 | 3rd Oct 19, 4:15:16 am |
| No. | Ward 3 | 16th Oct 19, 12:27:28 am |
| Beds. | Ward 3 | 23rd Oct 19, 2:58:22 am |
| No television which made the days feel long. | Ward 3 | 23rd Oct 19, 3:44:05 am |
| More staff required as some are ran off their feet and are missing their breaks to patient care. Let's try to get more recruitment with better wages. | Ward 3 | 23rd Oct 19, 6:38:22 am |
| Felt a little pressured when being discharged. Understand logistical pressures and issues but was made to feel a little 'outstaying my welcome'. Have to comment that this was dealt with at the time sympathetically. And food is not great (selection quality). | Ward 3 | 23rd Oct 19, 6:45:39 am |
| It is obvious that the lack of beds prevents the smooth flow of work (operations) and this leaves [unreadable comment]. | Ward 3 | 7th Nov 19, 4:40:30 am |
| Staffing levels. | Ward 3 | 7th Nov 19, 4:46:13 am |
| Yes, my TV was bust. Haha. | Ward 3 | 7th Nov 19, 7:13:21 am |
| Not really no. | Ward 3 | 14th Nov 19, 10:33:21 pm |
| No, | Ward 3 | 21st Nov 19, 1:15:14 pm |
| This is a very busy ward and really needs more staff. | Ward 3 | 5th Dec 19, 1:28:46 pm |
| Staffing levels. | Ward 3 | 5th Dec 19, 1:37:49 pm |

Possibly more staff to ease the burden on those working so hard.

Ward 3

11th Dec 19, 7:29:43 pm

Understaffing.

Ward 3

11th Dec 19, 7:38:42 pm

Locations: Ward 3

| Ⓞ Any comments in relation to your protected characteristics | | |
|--|----------|-------------------------|
| Response | Location | Response Time |
| As a gay man, I was treated no different to anybody else, with respect and dignity. | Ward 3 | 4th Sep 19, 6:22:23 pm |
| I was treated with respect and kindness by all and on the ward (3) that I was on the attention and treatment could not be faulted. | Ward 3 | 19th Sep 19, 1:39:08 am |
| No problems. | Ward 3 | 3rd Oct 19, 1:06:34 am |
| Just brilliant attention and staff. Just a wonderful experience. | Ward 3 | 3rd Oct 19, 1:37:34 am |
| No issues whatsoever. A very inclusive atmosphere. A general happy experience with a good result. Thanks. | Ward 3 | 7th Nov 19, 4:40:30 am |
| I think all issues relating to sex, race, age are catered satisfactorily. | Ward 3 | 7th Nov 19, 4:46:13 am |
| Only comments I have never been in this hospital before, and found the staff and my treatment excellent. | Ward 3 | 7th Nov 19, 7:13:21 am |

NORTH WALES VASCULAR NETWORK

Multi-Disciplinary Team – Standard Operational Policy

Introduction

Multidisciplinary team (MDT) meetings ensure standard management pathways are used to treat patients, in the expectation that standardising treatments to the best evidence based techniques will improve outcomes. There is a recognition that management is most effectively delivered by a multi-professional team composed of all the disciplines involved in the care of the patient, including surgeons, anaesthetists, radiologists and nurse specialists. The management of the patient is effected through regular meetings of the MDT, in which individuals with aortic aneurysms are discussed, treatment planned and any variation from common pathways explained and agreed.

Structure

Coordination and administrative support

The MDT meetings will receive administrative support from a dedicated administrative coordinator and clinical MDT coordinator. The meetings will take place in a room that is appropriate in size and layout, such that all attendees have a seat and are able to see and hear each other and view all presented data including radiological images. The meeting room must have sufficient IT facilities to access and display the necessary case details including images. The room used for the meeting will ideally be the same on each occasion to avoid confusion.

The administrative MDT coordinator will maintain an attendance log for each meeting and translate these into a database of attendance. The administrative MDT coordinator will be responsible for taking notes during the meeting or documenting actions taken following the meeting with support from the clinical MDT coordinator and chairperson. The coordinators will continue to track that the outcomes from the meeting are achieved. The MDT coordinators will input data into the aneurysm database, compile MDT letters and collate data for relevant reports, including WAAASP reports, and the morbidity and mortality meetings.

Scheduling, frequency and duration

It is essential that protected time is set aside in all participants' schedules for the meeting. Each clinician's job plan and working timetable will take these meetings into account and no other commitments, such as operating lists or clinics, will be scheduled at the same time. Meetings will be held weekly on a Friday afternoon in the Radiology Seminar Room between 13.30 and 15.30. Video conferencing facilities will be provided for interventional radiologists unable to attend in person.

Cases will be presented following the recognition that a case meets the group's criteria for review. Discussion of a case will not proceed if the key radiologist / surgeon is unable to attend unless it has been agreed and discussed with a colleague to present.

For complex cases, which often involve a team of clinicians, across the Health Board it will be necessary for a repeat MDT discussion one week prior to the patient's planned admission. It will be mandatory for a lead clinician to be responsible for the patient's perioperative care. Montgomery principles of consent will be adhered to, and documented by the lead clinician.

Local vascular / radiology meetings will continue to discuss IR procedures locally.

Remit of the meeting

The North Wales Vascular MDT will be principally concerned with the treatment and management of the following vascular conditions:

- All open arterial cases
- Major venous cases which warrant MDT discussion including complex fistulas
- Complex endovascular cases
- All outpatient cases that need an MDT consensus
- Any follow-up cases that need an MDT consensus
- Any images which requires MDT consensus prior to patient review

Day case uncomplicated IR procedures performed at all sites do not require MDT discussion if both the responsible Consultant and Interventional Radiologist have discussed and satisfied to proceed.

The chairperson will be responsible for checking the documented outcomes recorded by the MDT coordinators are accurate. This will include: elective surgery, emergency surgery, turn-down for intervention and continued surveillance.

Participation and attendees

All consultants are expected to attend every meeting at the hub site unless they are on leave. Participation by consultants is contractually mandated and should be accommodated by their directorate. Other clinicians involved in the delivery of the service will also be invited to participate regularly. This is likely to include anaesthetists and nurse specialists. Training grade doctors will also be encouraged to attend whenever their ward duties allow for this. Non-clinical managers with a role in service delivery or clinical governance will also be invited to attend.

Attendance at the MDT meetings will be underpinned by strict confidentiality, and all information shared at the meeting will be treated sensitively and in confidence. All participants' attendance at the meeting will be logged. Core members of the group, including consultants, would be expected to remain for the duration of each meeting except in the event of an emergency that requires their attention. Hospitals will maintain attendance records of MDT meetings and make this information available for each individual's annual appraisal.

A minimum of two radiologists are required to attend the MDT at the hub site. However, if only one radiologist is able to attend, the MDT will continue. EVAR and complex

endovascular cases would be further discussed with another radiologist. This would take place within 2-3 working days and would be further communicated to the responsible consultant and the MDT coordinator. This is the responsibility of the radiologist present at the time of the MDT meeting.

Identifying cases for discussion

All patients identified to have a vascular condition suitable for MDT discussion and who have met the criteria for intervention, will have their imaging submitted for review in the MDT meeting. Referrals will be made via the referral proforma (appendix 1), by 4pm on the Wednesday prior to the MDT. Prior to review in the MDT, the patient's imaging will have been reviewed by the interventional radiologist. The patient will have been reviewed by the surgeon responsible for their care and pre-assessed by a consultant vascular anaesthetist. Any additional investigations should ideally have been performed, prior to the patient's case being reviewed in the MDT. Exemptions will be made for urgent / emergent cases.

Preparation of case presentations in advance of the meeting

Appendix 2 would be used for MDT cases presentation. This format will be followed for all cases, to ensure consistency and understanding. The preparation time will vary depending on the individual case. Preparing a case for presentation should include the following steps:

- gathering the relevant patient information
- retrieving relevant radiographic images – official report must be available (except emergencies)
- preparing a short overview of the patient's co-morbidities, current medications and surgical history
- a proposed management plan
- inclusion of anaesthetic reports and objective assessments of fitness e.g. CPEX, stress echocardiography, etc
- and sending the prepared materials, and MDT referral form (appendix 1) to the meeting coordinator

PRESENTATION OF CASES, CHAIRING THE MEETING AND TEAM BEHAVIOURS

Commitment to the aims of the meeting by all participants and the quality of their interactions plays a crucial role in the effectiveness of an MDT meeting. Good leadership is also necessary to foster an environment in which all participants can contribute to constructive and non-judgemental discussion without fear of criticism from their peers. Conversely, all participants have a shared responsibility to behave in a way that is conducive to learning and supports service improvement and to challenge conduct that may be detrimental to those shared goals.

Presentation of cases

Responsibility for the clear and accurate presentation of each case lies with the referring consultant. Therefore it is essential that the consultant has all appropriate information for the case, to ensure a comprehensive discussion and accurate outcome. Key components for an effective presentation include:

- organised, and logical presentation by the responsible consultant (using the agreed standardised format)
- presentation and discussion of radiological images by the respective IR consultant for the patient who is familiar with the case
- for complex cases, the appointed lead clinician will present the case

Chair of the meeting

Responsibility for chairing the meeting will be rotated between consultant vascular surgeons and consultant interventional radiologists. Change in rotation should ideally take place every three months to provide continuity to the running of meetings and to facilitate job planning arrangements. It is expected that the chair will require dedicated time in their job plan to carry out their responsibility. A deputy chair will be appointed in the event that the chair is unable to attend. The chair is responsible for enabling an open and constructive discussion that can fulfil the meeting's purpose.

During the meeting, the chair should ensure that:

- the meeting is sufficiently well attended to fulfil its purpose
- the record of discussion from the previous meeting will be agreed by chair initially, and any amendments proposed considered
- there is an open discussion and constructive exploration of opposing views
- discussions are focused, relevant, evidence-based and patient-centred
- a reasonable balance between case presentation and case discussion is maintained
- all relevant team members are included in the discussion and feel able to request and provide clarification if anything is unclear
- disagreements between participants are managed, enabling the meeting to progress
- any inappropriate behaviour is challenged
- any agreed actions are allocated and ensure the administrative coordinator has captured information, before discussion of the next case begins

After the meeting the chair should ensure that the record of the meeting accurately reflects the outcome of the discussion of each patient and is circulated to all participants.

Team behaviours

All participants in the MDT meeting share a responsibility for creating and maintaining an environment which is conducive to achieve good outcomes for patients with vascular disease. In order to reinforce these qualities and challenge any behaviour which is contrary to the meeting's aims. The members agree to the following code of conduct for acceptable behaviour in the meeting:

- mutual respect and trust between participants
- encouragement of contributions from all participants
- constructive discussion and debate valuing different opinions
- challenging those in the group who do not adhere to these principles

Audit

It is necessary to audit the MDT process to ensure compliance with governance procedures, and adherence to the standard operation policy. This is in addition to the morbidity and mortality (M&M) meetings. Audit will comprise:

- use of an agreed audit tool specifically aimed to assess compliance with the Multi-disciplinary Team Standard Operational Policy on a 6 monthly basis
- data from the MDT meetings will be reviewed to track agreed outcomes, and will generate information on interventions, mortalities and turn downs
- this data will be presented at the subsequent M&M meeting
- **ALL** mortalities and morbidities will be presented at the M&M meeting, even if they have previously been discussed at the MDT meeting

The Group membership will comprise:

Chair (rotating): Consultant Surgeon / Interventional Radiologist

- MDT Coordinator
- Consultant surgeon
- Consultant IR
- Consultant anaesthetist
- ANP
- CNS
- Service Manager
- Junior doctors (training and non-training)

By invitation The Chair may extend invitations to others to attend meetings as required.

GROUP MEETINGS

A quorum shall be 4 members consisting of two interventional radiologists (one at the hub and one via VC), two surgeons and the MDT coordinator present at the hub. When only one radiologist is available, please see section participation and attendees.

In the absence of the chair, the deputy-chair will chair the meeting. Meetings shall be held weekly. Urgent items which fall outside of the time frame will be discussed with the chair for inclusion.

REVIEW

These Terms of Reference shall be reviewed annually by the Group (including review of pathway, and documentation).

Appendix 1: Referral proforma

North Wales Vascular MDT Referral Form

All referrals to be emailed to XXX.XXX@wales.nhs.uk

| | |
|---|---|
| Patient name and address: DOB: NHS Number: | Referring hospital: Vascular consultant: Radiology consultant: Date of vascular clinic: |
| Referral type: | |
| Date of most recent relevant imaging: | Traffic light – Urgency of patient Red Amber Green |
| Significant PMH: | |
| Has the patient had a vascular consultant review in clinic/ inpatient? Yes / No Treatment options discussed with patient? Yes / No If yes, patient preference? Anaesthetic review Yes (date) / No – date due: | |

Name (Referring consultant) Hospital.....
Signature Date

For discussion at the Friday meeting please email form by the Wednesday BEFORE 4pm (Except emergencies) **to:** XXX MDT Co-ordinator
Tel:
Email: @wales.nhs.uk (from a wales.nhs.uk address only)

Appendix 2

MDT Presentation Format Proforma (draft- to be agreed)

| | | |
|--|---|--|
| Presentation by consultant surgeon | | |
| | Patient name and age | |
| | Referral type / Background | |
| | PMH | |
| | Review from Clinic OPA | |
| | Supporting information <ul style="list-style-type: none"> Anaesthetic report Treatment for co-morbidities | |
| Presentation and review of imaging by consultant radiologist | | |
| | | |
| | Discussion concerning treatment options | |
| | Clear outcome decision Further Review Turn Down <input type="checkbox"/> Elective <input type="checkbox"/> Emergency <input type="checkbox"/> Continued review <input type="checkbox"/> New Threshold for treatment Referral to other vascular centre: | |

Feedback and actions following the Vascular Rapid Improvement Event 12/12/19

In attendance:

| Topic | Discussion |
|-------------------|---|
| Where are we now? | <p>What works well?</p> <ul style="list-style-type: none"> • Introduction of clinical governance and mortality and morbidity meetings, incidents (clinical and non-clinical) now reviewed. • Investment in the hybrid theatre and vascular ward • Full complement of consultants • Centralised on-call and elective service • MDT – improved communication • Quality of audit improved • Theatre scheduling • Communication – Wrexham great working relationships and chronic management of patients • Gradual improvement in GP, trainee and other services communication – current pathway knowledge and understanding is good • OT in YGC great communication and referrals • Peer patient support has been offered with positive outcome <p>What could be improved?</p> <ul style="list-style-type: none"> • Poor communication for inpatient anaesthetic reviews. Faxing to secs, need to contact team to discuss • Improve MDT numbers and organisation • Requesting HDU beds that may not be required due to different anaesthetic review • Opportunity for ALAC to visit patients on the ward and can meet other patients • Late referrals to the limb service. Lack of clarity on who is suitable for referral – possibly pre-surgical referral • Podiatry could be utilised more with better communication • Understand what should come into the hub • Access to vascular network drive – photos etc. • Order of theatre lists - Plan to do small cases at the start of the list • Early booking of lists 2 weeks in advance • Bed base: Not sufficient vascular beds in YGC and 15 beds in YG not utilised • Staffing: No junior doctors in YG • Medical outliers • Repatriation – lack of opportunity to get right patients in right bed • Everything has been centralised • HDU beds – funded for 1 in YGC • CEPOD – inappropriate utilisation by vascular • Medical staffing (in and out of hours) • Wider MDT not engaged (such as community) • Ability to access resource – contacting ward, contacting surgeons • Management of critical patients |

| | |
|---|--|
| | <ul style="list-style-type: none"> • Negative experience of patients (bounced around) • Post-op information for clinicians |
| Where do we want to be and how do we get there? | <ul style="list-style-type: none"> • Back to original plan – YGC major vascular centre – funding appropriately • Improved clinical pathways – process, SOP, systems • Agreed pathways including the diabetic foot service • Non-urgent managed locally – including investigation • Reduced waiting time for clinic and elective surgery • Criteria led admission and improved patient flow for vascular emergencies - differentiate acute/chronic conditions. Training for wards/JDs – referrals and quality of these • Improve communication: <ul style="list-style-type: none"> • Wider MDT engagement • Nurse to nurse communication / documentation / pictures • Access to clinical notes / patient's notes / WCP • Named contact on each site • Bleep management • Improve links to podiatry and district nurses • Consultant unity of opinions and advise across sites • Distribution of rota to prosthetics and orthotists and podiatry • Production of patient information • Clear discharge information • Notes to be transferred with patients for follow up • Ongoing approach to communication • Rapid improvement event – community based • Task and finish group – post implementation group to address issues • Focus groups: Bryn, prosthetics, podiatry, vascular surgeon, informatics and systems, community nursing, diabetes team • Access to rehab • Follow up to be clear for patient and service • Develop PACU |
| Pathways – What do we have? | <ul style="list-style-type: none"> • Emergency pathways (East and West) – stable and unstable • Emergency (Centre – hub) • Carotid pathway • Renal access |
| What pathways are required? | <p>Non arterial diabetic foot</p> <ul style="list-style-type: none"> • No agreed pathway • Lack of clarity regarding stakeholders • Patients being “bounced” around the system <p>Where we want to be:</p> <ul style="list-style-type: none"> • seamless service with clear pathway, clarity about what/who “owns” the patient • Spoke beds East and West? • Local infrastructure to oversee / manage patients <p>How are we going to get there?</p> <ul style="list-style-type: none"> • Identify project lead for North Wales |

| | |
|--|---|
| | <ul style="list-style-type: none"> Identify stakeholders Compliance with NICE guidelines Decision about beds Investigations to identify non arterial foot Post arterial surgery rehab Patients being discharged with no care plan and no communication – details / contact Lack of clarity about wound management on the ward Outliers in YGC No pathway following surgery to spokes |
| | <p>Groin abscesses</p> <p>Where are we now? All patients currently referred to YGC. Lack of clarity about post op care</p> <p>Where do we want to be? No groin abscesses with no arterial involvement go to YGC = involves undertaking appropriate diagnostic in the spoke</p> <p>How to get there? Pathway required</p> |
| | <p>Renal access</p> <p>Where are we now? Shorter waiting times</p> <p>Better working / relationships with renal physicians and team</p> <p>No longer required to provide assurance reports</p> <p>How did we get there? Right skills, prioritise skill to fistula, centralisation enabled a single queue</p> <p>Dialysis waits are an unintended consequence</p> |
| | <p>Repatriation</p> <p>Ensure patients are on the correct site</p> <p>Raise awareness of patients that do not require care in YGC any longer – there is now a weekly VC to discuss patients across the sites</p> <p>East and west to have an element of vascular care available that is clearly defined as to the criteria</p> <p>Emergency admissions need additional information as currently limited</p> |
| | <ul style="list-style-type: none"> Acutely ischaemic when no bed in the hub Post arterial surgery needing rehabilitation Interventional Radiology intervention (angios) Non-surgical arterial conditions (palliative) |

Actions following the rapid improvement event

| Theme | Action | Update |
|---------------|--|--|
| Service | Meeting with anaesthetic and vascular department to discuss HDU selection and prioritisation | 13/01/20 – meeting held |
| Communication | Access to the shared drive can be given to those requiring it. | Access to drive given to podiatry and outreach nurse teams. Further requests will be actioned. |

| | | |
|-------------------------|---|---|
| Service / communication | ALAC team invited to attend the ward, MDT meetings and clinical governance | Team to attend clinical governance (11/03/20) |
| Service | Review of the vascular bed base in line with ongoing discussions for a shared care model and provision of junior doctors – led by Dr Mottart | Discussed with Secondary Care Medical Director and executive team. |
| Communication | Weekly VC meeting to review vascular patients on all sites | Commenced February 2020 – led by HoNs for surgery |
| Communication | Care pathway documentation on the ward Request made to IT for clinic notes and MDT outcomes to be uploaded to WCP refused. | |
| Information | Review of patient information with CNSs (newly appointed YGC vascular CNS to commence April 2020) | |
| Patient care | Notes to be transferred with patients for follow up | Notes now kept with the patient on transfer and for follow up |
| Service | Task and finish group – post implementation group to address issues | Agreed task and finish group to be set up April 2020 |
| Pathways | <ul style="list-style-type: none"> Repatriation - Ensure patients are on the correct site. Raise awareness of patients that do not require care in YGC any longer. East and west to have an element of vascular care available that is clearly defined as to the criteria. Emergency admissions need additional information as currently limited Groin abscesses Acutely ischaemic when no bed in the hub Post arterial surgery needing rehabilitation Interventional Radiology intervention (angios) Non-surgical arterial conditions (palliative) Non arterial diabetic foot | <p>There is now a weekly VC to discuss patients across the sites</p> <p>Discussions ongoing with Hospital Medical Director. Further meeting and draft pathway to be drafted. Escalation process to be reviewed. Draft to be circulated by 06/03/20 Clarify the current situation Managing these patients to discuss with Pall care team Draft pathway based on national examples to be circulated</p> |

The Vascular Society
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Dear Ms Clark

I apologise for the delay in our response. I am sure that you can understand, in these unprecedented times when we are being called to support the challenge of the COVID pandemic, paperwork is taking a bit of a back seat while we establish new ways of working.

I have had the opportunity to read your report and my comments reflect those of my colleagues on the exec committee of the Vascular Society. I would like to commend you on the thoroughness of your review.

The objective of your report was to review the current provision and delivery of Vascular Services in North Wales after the implementation of centralisation in April 2019, and in particular to assess the safety and accessibility of the service for the patients of North Wales, and to review the risks and clinical governance structures.

As with all centralisation programmes, there were inevitable teething problems. The transition stage, running two sites was unpopular with the trainees and demonstrated the vulnerability of a service that depended on a single surgeon. The original plans shared the vascular beds across the two sites with 15 beds at YG. Clearly, work is required to create the full establishment of beds at the nominated arterial center at YGC – Rhyl.

I congratulate you on your pathways that encourage greater use of out -patient care and the consequent reduction in length of stay. This is in line with your government's aim. However, with 3 different models of care for the diabetic foot service, conflict and miscommunication are inevitable. I would recommend that you engage with commissioners, primary and secondary care to develop common pathways of care with agreed protocols with greater involvement of the MDFT in managing these complex patients.

Patients need to be seen close to home and well structured job plans for your Vascular Surgeons should include up to 40% of their time at the spoke hospitals to allow for this.

Outcomes do need to be monitored and I would encourage the use of registry such as the NVR , PEDW and the diabetic audit to monitor activity and to benchmark against equivalent units in England.

Communication is key to good practice and I would recommend developing a formal communication strategy to support the changes you have implemented.

The Vascular Society would like to congratulate you on the progress you have made towards centralisation. Your model is in line with the recommendations of the Vascular Society and the Provision of Vascular Services 2018 document. I am sure that the service will continue to adapt. That you have managed to recruit Consultants to the service is a strong indication that you are on track to develop an excellent Vascular service for the patients of North Wales.

Kind regards



Sophie Renton
Secretary of the Vascular Society



GIG
CYMRU
NHS
WALES

Bwrdd Iechyd Prifysgol
Betsi Cadwaladr
University Health Board

Version No: 1

**Reference No:
C19-Vas-001**

This document provides the substantive guidance and/or standard operating procedure during the COVID-19 pandemic. All staff must follow this guidance which replaces previous iterations until further notice. The document does not supersede national UK/Welsh Government or Public Health guidance, which may frequently be subject to change as the outbreak develops. This document should be used in conjunction with other BCUHB COVID-19 documentation, local policies and/or procedures where applicable. The most up to date version of this document can be located within the COVID-19 document repository; <http://howis.wales.nhs.uk/sitesplus/861/page/78291> or e-mail; BCU.SROClinicalPathways@wales.nhs.uk for confirmation.

| | | | | | |
|--|---|--|--|--|--|
| Title | BCUHB North Wales Joint Vascular Surgery and Vascular Imaging COVID-19 Pathway | | | | |
| Presented to CAG by | Soroush Sohrabi | | | | |
| Responsible Dept / director: | Vascular Department | | | | |
| Approved by: | Clinical Advisory Group (CAG) | | | | |
| Date approved: | 30 th April 2020 | | | | |
| Date activated (live): | | | | | |
| Documents to be read alongside this document: | None | | | | |
| Date of next review: | 31 st December 2020 | | | | |
| Date EqIA completed: | To be undertaken | | | | |
| First operational: (Date From SRO Ops Group) | | | | | |
| Version & Date of Previous Approval | | | | | |
| Changes made yes/no: | | | | | |

N.B. Staff should be discouraged from printing this document. This is to avoid the risk of out of date printed versions of the document. The Intranet should be referred to for the current version of the document

COVID 19 - North Wales Joint Vascular Surgery and Vascular Imaging

During the coming months the Vascular Network will function as a single service delivering emergency and essential vascular care to the patient of North Wales, this will mean that the current pathways will be temporarily suspended as described in the document below. In line with the recommendations from the vascular society of Great Britain and Ireland (VSGBI) the following action plans are recommended for the vascular surgery services in North Wales in response to COVID 19 outbreak:

1. Outpatients

- a. All non-urgent outpatients across three sites will be cancelled until further notice. These include all non-urgent new and follow up outpatients.
- b. In all three sites (YG, YGC and WMH) the new and follow up prioritisation forms will be used for urgent patients allocations.
- c. All follow up patients will have their last OPC letter reviewed by the consultant vascular surgeon and using the "vascular follow-up prioritisation form" all non-urgent patients will be discharged and if suitable will be referred to the SOS pathway.
- d. The outpatients sessions will be dedicated to urgent patients only
- e. There will be a telephone consultation or video assisted conference option with the vascular consultant in the outpatient clinic

2. Vascular procedures

- a. Elective arterial surgery and venous surgery will be deferred.
- b. Asymptomatic carotid surgery and surgery for claudication will be deferred.
- c. The size threshold for elective AAA surgery needs to weigh up risk of rupture in the next few months. Elective AAA intervention threshold will be increased to 7 cm or more or with evidence of imminent rupture (e.g. symptomatic AAA).
- d. Ruptured aneurysms should ideally be treated by EVAR whenever possible to reduce dependence on the High Dependency Unit and reduce length of stay.
- e. Open surgery should only be considered when EVAR is inappropriate or unavailable and in cases where there is a good chance of success. ITU capacity will be taken into consideration prior to intervention.
- f. All other aneurysms should be discussed in NW vascular MDT as previously
- g. Those legs immediately threatened require urgent intervention. Others will be diverted to urgent OPC assessment. Interventional radiological approaches may allow more appropriate utilisation of scarce high dependency beds. There may be situations where primary amputation may be more appropriate than complex revascularisations, multiple debridements and potential prolonged hospital stay.

- h. Crescendo TIAs would normally need urgent surgery. If there are severe resource limitations, aggressive best medical therapy more appropriate for recently symptomatic carotids.
- i. The “vascular intervention prioritisation form” will be used in the Wednesday or Friday MDT meetings or by two consultants to allocate urgent patients for intervention.
- j. Endovascular treatment will be prioritised for patients who are suitable for both open and endovascular as the majority of patients after endovascular procedures are discharged sooner.
- k. Minor amputation patients may be discharged home same day with regular OPC review if safe. The vascular unit will work on a hot clinic for review of wounds

3. Renal access

- a. Dialysis access work during the pandemic will be limited to work which is likely to prevent admission to hospital or to save lives. Renal access patients will be discussed in the YGC Wednesday and Friday MDTs and priority will be given to urgent patients e.g. patients who will require admission for a line if access fails. These cases will be done in theatre L in YGC or in the YG and WMH fistula lists if they are available.
- b. Vascular surgery will continue to provide services for peritoneal dialysis (PD) catheter insertion based on the advice from the renal team. This will reduce the risk of crash-landing onto haemodialysis almost certainly requiring a hospital admission.
- c. Vascular services will aim to perform majority of the access cases as day-case if appropriate to reduce patients’ hospital stay. This will include both fistula and PD catheter insertion
- d. Considering theatre and hospital bed capacity dialysis via access line might be the preferred option. This will be discussed with the renal team.
- e. Routine fistula US surveillance will be stopped. Only urgent fistula requested by the renal and vascular teams will be scanned to prevent or treat occluded fistulae
- f. IR services will continue supporting the treatment of problematic fistulas.

4. Inpatients

- a. Inpatients with wounds will be assessed daily by the vascular consultant on call and they will be assessed for suitability for review as urgent outpatient or in the community rather than inpatient hospital stay
- b. All post op patients should be reviewed by the vascular on call consultant and be discharged as soon as it is safe

5. Staffing

- a. The vascular on call rota will have a two tier system for on calls
- b. If staffing is an issue, in the first stage consultants will be requested to cancel their offsite SPAs and in the second stage to cancel their leave.
- c. All SPA will be transferred to DCC during this crisis.
- d. Junior vascular doctors’ rota is coordinated with general surgery to ensure adequate cover

6. Imaging

- a. Vascular imaging that will be maintained:
 - i. Urgent life/limb threatening imaging e.g. ruptured aneurysm, acute bleeding
 - ii. Limb salvage for critical limb ischaemia
 - iii. Renal patients with acute fistula problems
 - iv. Imaging for peripheral vascular disease such as rest pain and tissue loss which is deemed to be urgent by referring Vascular Consultant
 - v. Imaging for TIA/stroke
 - vi. All AAA above 5.5 with have 3 monthly surveillance and will be offered treatment when they reach the 7 cm threshold or have evidence of imminent rupture
- b. The following referrals will be deferred:
 - i. Routine ultrasound/CT follow ups for vascular patients including AAA below 5.5cm, graft and post EVAR surveillance
 - ii. Patients with intermittent claudication
 - iii. Routine fistula surveillance
 - iv. Routine surveillance for thoracic aneurysms
 - v. Venous duplex for patients without limb threatening ulcerations
- c. Any urgent vascular imaging required by a vascular consultant can be discussed with a Radiologist on a case by case basis if required.
- d. Only lifesaving and limb saving vascular intervention will be performed. Critical fistula intervention will also be performed.

Draft Vascular Service Improvement Plan

| Recommendation | DRAFT ACTION | Suggested lead | When |
|---|---|--|--|
| Alignment of vascular inpatient bed base | <ul style="list-style-type: none"> Review of the capacity and demand for inpatient beds across the service. Continued delivery of the lower limb service across all sites with local access to consultant and MDT review. | Vascular Manager | 16/06/20 16/06/20 |
| Pathways of care | <ul style="list-style-type: none"> Develop the non-arterial diabetic foot pathway consistent with National Diabetic Foot Pathway and NICE guidelines Review and refine angioplasty pathway Review and refine pathways for patients that use drugs intravenously presenting with groin abscesses Review and refine pathway for patients post major arterial surgery requiring rehabilitation | Clinical Advisory Group Clinical Advisory Group Clinical Advisory Group Clinical Advisory Group | 16/6/20 16/6/20 16/6/20 16/6/20 |



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Appendix 30

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| | <ul style="list-style-type: none"> Refine and review pathway for non-surgical arterial condition for 'palliative' patients, in conjunction with palliative care team | Clinical Advisory Group | 16/6/20 |
| Engagement and communication | <ul style="list-style-type: none"> Communication Plan to be drafted with input from staff, CHC, service user representatives for presentation at the Vascular Task and Finish Group | Comms lead | 16/6/20 |
| | <ul style="list-style-type: none"> Ensure any service change includes service user and carer involvement, and utilise patient feedback to inform improvement | Secondary Care Nurse Director | Review at all meetings of Vascular Task and Finish Group |
| | <ul style="list-style-type: none"> Review opportunities for staff to speak and feel able to raise concerns, including Safe Haven arrangements | Executive Medical Director | October 2020 |
| | <ul style="list-style-type: none"> Development of a stakeholder engagement plan to maximize opportunities to listen and learn from feedback, to include patient and carer engagement with the development of a virtual vascular | Corporate Lead for Patient Experience | 16/6/20 |



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Appendix 30

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| | <p>patient and carer network which will link to the Health Board's Listening and learning group</p> <ul style="list-style-type: none"> Review of PROM/PREM measures to improve patient experience alongside existing patient experience data Review of patient information and accessibility (including travel) with the support of the patient experience team | <p>Corporate Lead for Patient Experience</p> <p>Corporate Lead for Patient Experience</p> | <p>16/6/20</p> <p>16/6/20</p> |
| Quality and Safety | <ul style="list-style-type: none"> Baseline Safety culture survey to be undertaken to inform areas for improvement. Benchmarking of service incident reporting to improve safety via an open incident reporting culture and improve learning Explore the potential to work with a high reporting service to share good practice Development of quality and safety E-Dashboard, aligned to corporate dashboards, triangulation of complaints, incidents, compliments and lessons learnt trends to | <p>Corporate Quality lead</p> <p>Corporate Quality lead</p> <p>Corporate quality lead</p> <p>Corporate Improvement Team</p> | <p>16/6/2020</p> <p>July 2020</p> <p>16/5/2020</p> <p>July 2020</p> |



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Appendix 30

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| | provide assurance from ward to board. | Vascular network lead in partnership with Workforce lead | July 2020 |
| | <ul style="list-style-type: none"> Develop key workforce indicators to provide assurance on the safety of the workforce, including escalation measures | Service clinical leads | August 2020 |
| | <ul style="list-style-type: none"> Training Needs Analysis to be undertaken to support the emerging clinical pathways and future workforce model | Chair of the T&F Group | 16/06/20 |
| | <ul style="list-style-type: none"> Issues of significance report from vascular Task and Finish group to Quality, Safety and Experience Committee | Chair of Clinical Effectiveness Committee | 16/06/20, and review monthly |
| | <ul style="list-style-type: none"> Consider all opportunities for national/international benchmarking including the National Vascular Registry and national audits to assess, evaluate and review opportunities and improve the service | | |
| | <ul style="list-style-type: none"> Evaluate and report to Quality, | Executive | 16/06/20 |
| Access to the service | | | |



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Appendix 30

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| | Safety and Experience Committee compliance with agreed service implementation plans | Medical Director | |
| | <ul style="list-style-type: none">• Monitor vascular waiting times• Reporting template and submission to be drafted by the Secondary Care leadership team and to be ratified. | Head of Planned Care Secondary Care Medical Director | 16/06/20 16/6/20 |
| This action plan will reviewed and updated at the first Task and Finish Group meeting on 16/06/20 | | | |

TERMS OF REFERENCE

Vascular Network Task and Finish Group

| | |
|-----------------------|---|
| Accountability | Quality, Safety and Experience Committee |
| Remit | <p>The Vascular Network Task and Finish Group will be responsible for implementing the recommendations identified in the Review of the North Wales Vascular Network presented to the Health Board in May 2020. <i>The CHC has compiled a report following a series of engagement events with the public and staff. This group will also address any areas for improvement raised within the CHC report.</i></p> <p>The principle objective of the review was to assess the impact of the vascular services provided across the North Wales network and incorporated the following:</p> <ul style="list-style-type: none"> a) A review of the current provision and delivery of vascular surgery services in North Wales following the implementation of a centralised service in April 2019. b) The safety and accessibility of vascular services for all patients receiving care from the North Wales Vascular Network. c) The risk management and clinical governance arrangements of the North Wales Vascular Network. d) To identify lessons that can be learnt: both examples of good practice and areas where improvement is required e) Clear recommendations for the consideration of the Health Board as to possible courses of action which may be taken to address any specific areas of concern which have been identified. |

| | |
|-------------------------------|---|
| | <p>The group will ensure that all relevant stakeholders with a responsibility for planning and delivering services have an opportunity to review/discuss pertinent issues and agree an achievable work plan for delivery of the recommendations. These will include clinical facilities, service delivery, scheduling and risk management issues as well as finance and performance.</p> |
| Chair | Executive Medical Director |
| Core Membership | <ul style="list-style-type: none"> • Secondary Care Medical Director • Executive Nurse Director • Nominated Hospital Director • Clinical Director Vascular Network • Nominated Hospital Medical Director • Nominated Hospital Nurse Director • Chair of the Clinical Effectiveness committee • Primary Care clinician • Consultant Anaesthetist/Critical Care • Clinical Lead for Interventional Radiology • Vascular Network Manager • Community Health Council Representative • Vascular patient and carer representatives • Therapies representative • Communications • Corporate Patients Experience Lead • Informatics • Other members will be co-opted as required and the group develops |
| Administrative Support | Action log |
| Attendance | Any clinician, manager or nurse who is not a core member of the group may be asked to attend to discuss specific agenda items within their area of responsibility |
| Quorum | Greater than five members including the Chair or Vice Chair (Executive Nurse Director) one of which must be in attendance. |
| Frequency & Venue | Monthly |

| | |
|----------------------------|---|
| Proposed Start Date | June 2020 |
| Authority | Quality, Safety and Experience Committee |
| Functions | <p>The work of the Group will address the recommendations from the finalised action plan:</p> <ul style="list-style-type: none"> • Alignment of vascular inpatient bed base • Pathways of care • Engagement and communication • Quality and Safety • Access to the service |
| Outputs | <p>An up to date action log will be maintained and circulated to agreed stakeholders after each meeting.</p> <p>The Group will provide a monthly report to the Quality, Safety and Experience Committee.</p> |
| Reporting | <p>The Chair may raise specific matters at the meeting for information, discussion or approval. All members may submit items for discussion to be brought to the meeting. Agenda and supporting papers will be circulated one week prior to the meeting. The Group will provide a monthly report to the Quality, Safety and Experience Committee.</p> |
| Communication | <p>Each member has a role that involves communicating and disseminating information.</p> |
| Escalation | <p>Escalation of issues to the Quality, Safety and Experience Committee</p> |



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**North Wales
Community
Health Council**

**Vascular
Services**

**Safe Space
Engagement
Events**

Final Report

March 2020

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Introduction

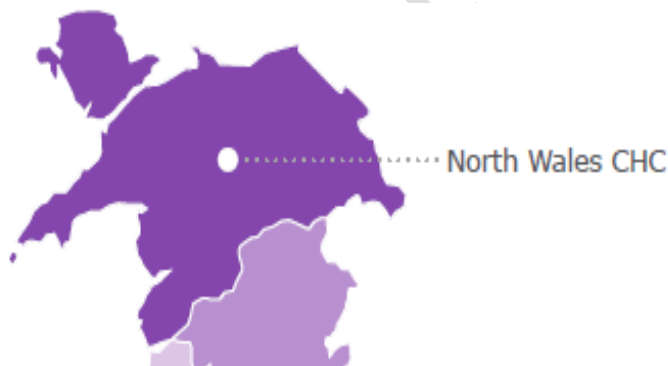
This report has been produced by North Wales Community Health Council (North Wales CHC)

North Wales CHC is the independent watch-dog for NHS services in North Wales and we seek to encourage and enable members of the public to be actively involved in decisions affecting the design, development and delivery of healthcare for their families and local communities.

North Wales CHC works with the local NHS, as well as inspection and regulatory bodies, to provide the crucial link between those who plan and deliver the National Health Service in North Wales, those who inspect and regulate it, and those who use it.

North Wales CHC maintains a continuous dialogue with the public through a wide range of community networks, direct contact with patients, families and carers through our enquiries service, complaints advocacy service, visiting and wider engagement activities and through public and patient surveys.

North Wales CHC represents the “*patient and public voice*” within geographical area covered by Betsi Cadwaladr University Health Board (BCUHB)



Background Information

“The Health Board has destroyed the good service that was in one place (*Ysbyty Gwynedd*) and has failed to duplicate it in another (*Ysbyty Glan Clwyd*) – this is not a Centre of Excellence!”

Quote from a patient in Holywell

In March 2018 Betsi Cadwaladr University Health Board made some significant changes to the provision of Vascular Services in North Wales.

Changes to **Emergency** Vascular Services were first put forward as part of the highly contentious “*Healthcare in North Wales is Changing*” (HCiNWIC) consultation that was undertaken by BCUHB in 2012. In late 2018 BCUHB told North Wales Community Health Council that they were now planning on introducing the changes to some vascular services (*consulted on almost seven years earlier as part of HCiNWIC*).

The BCUHB Medical Director at that time claimed that this consultation gave the Health Board a mandate to push forward with the centralisation of the service. North Wales CHC reject this argument, Healthcare in North Wales is Changing contained some highly contentious proposals to such as the closure of community hospitals and transfer of neonatal services to Arrows Park Hospital and public attention was focussed on these closures and not Emergency Vascular Services. North Wales CHC did respond to HCiNWIC expressing a wish to know more about the vascular proposals; in particular where the new centre was to be sited, how it related to changes forthcoming for other specialties as well as issues of staff recruitment and retention. North Wales CHC did not receive answers to all of these concerns at the time nor when the proposal was revived nearly seven years later.

The concerns voiced by the public at the time reflected many of the issues being raised now;

- **Rurality and travel** – *“I think some of the proposals are a bad idea. If there are people that are very ill and need to get to a hospital with complex vein surgery, but the hospital near to them doesn’t have it then they are going to have to travel”*
- **Emergency cover** – *“Centralising some services such as vascular will*

necessitate many people travelling long distances which in an emergency could prove fatal”

- **Lack of detail** – *“Where will the new centre be – how can we accept the proposals when we don’t know?”*

At the March 2019 Services Planning Committee (*extracted minute attached Appendix 1*) North Wales CHC strongly advised the Health Board that further consultation and/or engagement with the public would be prudent as there were genuine and widespread concerns that a highly valued local service was being removed from Ysbyty Gwynedd.

In following weeks the North Wales CHC heard more concerns about the service and the Chief Officer wrote to the BCUHB Chair and Chief Executive (*see attached Appendix 2*). The matter was also raised as an urgent item at the Autumn 2019 Board to Board meeting between North Wales CHC and BCUHB

North Wales CHC continued to try to influence the BCUHB on the progress of the service changes through our representation on the Vascular Implementation Task and Finish Group and vascular surgery has been a standing item on the North Wales CHC/BCUHB Services Planning Committee since 2018.

It is now clear that the **entire** vascular service currently being delivered by BCUHB is different in many key respects, not least pathways and patient flows, to that which was originally proposed by BCUHB in 2012 in respect of emergency vascular services.

In recent months North Wales CHC has received many letters and emails from concerned patients and staff on a range of issues;

- Lower limb salvage activity, which was to have been undertaken on all sites, has been curtailed and this has compromised the diabetic foot service
- Key consultant staff have, as predicted by the North Wales CHC and others, left and it has proved extremely difficult to attract medical staff
- It has been difficult to recruit and retain specialist nursing staff
- To date the hoped for improvement in outcomes does not appear to have been achieved
- The number of SUIs (Serious Untoward Incidents) has increased and results in relation to aneurisms are particularly concerning
- The number of complaints about vascular services has increased
- We understand that over 1000 cases have been transferred from Ysbyty Gwynedd (YG) to Ysbyty Glan Clwyd (YGC) – not the 300 originally

predicted by BCUHB at the Services Planning Committee on 19 March 2019

- YGC is designated a Centre of Excellence but allocation of surgical trainees has been withdrawn by the Deanery
- YGC lacks a functioning vascular surgery ward with trained vascular nurses.

As a result of intense local concerns, North Wales CHC raised the issue of Vascular Services as urgent business at a meeting with the BCUHB Board on 10th October 2019. Board members acknowledged that concerns about vascular care in North Wales have not been allayed by the changes and North Wales CHC members were pleased to hear that BCUHB intended to carry out a thorough review of the performance of the service and the impact of the changes made to the service to date.

In the absence of any proposal by the Health Board to engage with the stakeholders, North Wales CHC decided to offer patients, staff and other stakeholders a safe space to speak about their experiences and concerns.

These bilingual events took place in fifteen locations across North Wales (see *Appendix 3 for details*) and conversations were centred around the “7 Cs”;

- Compliments, Comments, Concerns & Complaints;
- Care planning & Care delivery;
- Communication & engagement

Plaudits for the Limb Salvage Service

Limb salvage is technically defined as the preservation of a functional foot without the need for prosthesis. Clinical success is defined as healing of ulcers or minor amputation sites, resolving rest pain, or avoiding a major amputation. (***Limb-salvage angioplasty in vascular surgery practice - J Vasc Surg. 2005 Jun;41(6):988-93***)

The Bangor Limb Salvage Service was one of the most successful by any measure and enhanced the quality of life of its patients and also reduced the burden on local NHS and social services.



The screenshot shows the 'Health in Wales' website. The header includes the GIG CYMRU NHS WALES logo and a search bar. A navigation menu on the left lists: Home, Health Topics, Our Services, Research and Resources, Statistics and Data, NHS Wales - About Us, News archive, Ysbyty Gwynedd is a world-beater in Diabetic Foot Care, and Events. The main content area displays a news article titled 'Ysbyty Gwynedd is a world-beater in Diabetic Foot Care' dated 15 September 2016, from the Betsi Cadwaladr University Health Board. The article text states that Ysbyty Gwynedd has the lowest amputation figures in the world, with no amputations in 2014. It features a quote from a patient, Mrs. Glover, who was saved from amputation by Professor Dean Williams. The article also mentions that the unit has been cited first for provision of service by NICE and that a surgeon from the DeBakey Institute is due to visit next year. The article concludes with a quote from Professor Williams stating they have the lowest amputation figures in the world.

Ysbyty Gwynedd is a world-beater in Diabetic Foot Care

15 September 2016, Betsi Cadwaladr University Health Board

Ysbyty Gwynedd is leading the way in diabetic foot care, with the lowest amputation figures in the world.

In 2014 there were no amputations at the hospital in Bangor, even though it's a known risk for people with diabetic foot disease, and the commonest cause for their hospital admission.

Those with the condition can often lose sensation in their limbs and as a result don't realise if they've suffered an injury which can then become infected and possibly lead to the loss of a foot or even leg.

Sixty-nine year old Jennifer Glover from Wrexham suffers from Type 2 diabetes and is just one of the patients who've had limbs saved by the innovative work of Vascular surgeon Professor Dean Williams and the team:

"I went on the Monday before Christmas for my podiatry appointment, and the podiatrist said she didn't like the look of my toe and said that I didn't look well, either.

"I got sent to A&E at Wrexham's Maelor, and from there I was rushed to Ysbyty Gwynedd, and when I arrived that night Prof Williams was waiting for me. He took off my toe there and then."

Mrs Glover can't praise the team enough:

"I could've lost my foot and that would've been disastrous. I couldn't have been independent and I don't want to be dependent on anybody.

"They were just fantastic. They knew exactly what to do. They took photos of every stage of the treatment and sent them to the district nurses so they knew exactly what was going on. They work as a team, not individuals. That's what's so impressive - you just feel reassured.

"Professor Williams even came in to see me on Christmas Day!"

Professor Williams has worked all over the world and came to Ysbyty Gwynedd in 2004:

"There's been a sustained reduction in lower limb amputations, and I put that down to the very close integration between the nursing and medical staff.

"Podiatry's running in parallel with us and the follow-up we do is very intensive. We're aggressive with the disease management and we watch patients like a hawk afterwards.

"We also have two vascular outreach nurses who see patients in their homes, and we have excellent radiologists, too."

The unit has been cited first for provision of service by the National Institute for Health and Clinical Excellence (NICE), and a surgeon from the noted DeBakey Institute in Texas is due to visit next year.

Professor Williams again:

"In terms of published data, as far as we know, we have the lowest amputation figures in the world.

"It shows a small dedicated team with specialists can have a bigger impact than these much larger units. All you need is some skilled, dedicated people all doing the same thing and it works really, really well. We're on the map now internationally, because we're consistently achieving world class outcomes for our patients."

[News archive >](#)

The claims made by BCUHB that the Limb Salvage Service at Bangor was “world class” were not hyperbole, but were acknowledged by NICE and many others - as can be seen from the NHS Wales news article above. This service has now been lost to patients but North Wales CHC believes that it could still be revived if BCUHB act quickly.

Patients valued the Limb Salvage Service highly and the links between Consultant Surgeons, specialist nurses and primary care health professionals are a model for other services to learn from and emulate.

For patients, the loss of these links between the hospital and the community is one of the most distressing aspects of the changes;

- *‘When patients went to the District Nurses from YG, the District Nurses received good service from the hospital and a lot of information about the patient. Now they are given one sheet of very basic information and the service doesn’t look into how the patients will manage at home following discharge from hospital’*
- *‘If I ever had any concerns about my husband’s foot, I would ring Podiatry and they would send him straight to Ysbyty Gwynedd. Once we were at YG, there would be a bed waiting for him on Dulas ward. They knew that if I was concerned, then there must be a problem. Straight away after being admitted to YG from Podiatry, Prof Williams or Mr Chaku would see him on Dulas ward. There was a process of ‘let’s nip it in the bud’ because there is no time to play with in these situations.’*
- *‘I now have to contact the District Nursing team (in Porthmadog), every time my husband is discharged, as the vascular ward at Ysbyty Glan Clwyd has never advised the District Nursing team when he has been sent home. Not the case when he was treated at Ysbyty Gwynedd.’*
- *‘My son-in-law been a vascular patient at Ysbyty Gwynedd for many years. He is a Type 1 diabetic and an amputee. He had endured an on-going ulcer and open wounds for many years and was under the care of Professor Dean Williams and his team at Ysbyty Gwynedd. At times of concern during podiatry appointments, the podiatrist would call a consultant from Dulas who would then come down to see him and take whatever steps necessary. This pathway has now completely disappeared and the podiatry staff appear to have no option of calling in a vascular consultant or any other vascular specialist on site like before.’*

What people told us

“What have Betsi learnt from 5 years of Special Measures and the disaster of Tawel Fan? Apparently nothing...”

Quote from event attendee.

This is the final report on the engagement events carried out by the North Wales CHC in relation to the vascular service changes. We held 15 events in all; many at the request of local Town Councils, one event was attended exclusively by BCUHB staff. In total over 200 people have attended these events and we received an additional 75 letters, emails and telephone messages.

Compliments

Compliments and plaudits were centred on the service that had been provided at Ysbyty Gwynedd. Selections of the compliments are set out below. There are far too many to include in the main body of this report and anonymised transcripts of all comments will be provided to the Review on request.

- *‘How can you improve on a ‘world-class’ service that offered a spectacular and unique service to patients under the leadership of Dean Williams at Ysbyty Gwynedd (YG)?’*
- *‘When patients went to the District Nurses from YG, the District Nurses received good service and a lot of information about the patient. Now they are given one sheet of very basic information and the service hadn’t looked into how the patients would manage at home following discharge from hospital.’*
- *‘My grandson would not be here if not for Prof Dean Williams. YG called him and he came in and kept my grandson going until he was taken to Liverpool. Prof Dean Williams saved his life. He was so dedicated.’*
- *‘Patient was referred to Professor Williams further to having leg cancer, which was taking a long time to get better. District nurses visited every day for 4 years. Referred to Professor Williams in January 2019 – attended his clinic at YG twice a week, and by August 2019 it was mended. Unbelievable – the care received and in the language of his choice, Welsh. The team were kind and the patient*

looked forward to seeing them. Can't believe how it's mended. Thank you very much.'

- *'Nothing but praise for the service. Complications with leg and was a patient of the service in 2013. Great care from the old system, believes that the changes made i.e. Centralisation has worsened the service.'*
- *'Husband's life was saved by the Vascular service in Bangor, after massive blunder in Ysbyty Glan Clwyd, where they removed a toe as instructed, but left rotting and infected tissue in the foot. Left on a ward for 3 days where he saw only 1 Nurse, no dressings were changed during this time. Thanks to a nurse known to the family, the patient was transferred to Ysbyty Gwynedd. Within 30 minutes of arrival Mr Chaku reassured the patient that he would do everything that he could to save the patients leg, but he could not guarantee he would be able to. Had it not been for Mr Chaku, he would've lost his leg. The leg was saved.'*
- *'Would not have got over trauma without them, everyone on Dulas ward even the cleaners treated him with care and compassion.'*
- *'Prof. Williams cares about his patients; BCUHB care about statistics not patients.'*
- *'My husband has been a patient of Professor Williams since 2013. No doubt in my mind that he would not be alive if it wasn't for Professor Williams. Professor Williams gave him the support to fight his illness (sepsis), doing everything that he physically could along with Mr Chaku. Thanks to them my husband was able to stand at the altar for our wedding.'*

What Betsi Cadwaladr Staff told us...

North Wales CHC held a session attended only by BCUHB staff. These were staff currently employed by BCUHB and it was not at Ysbyty Gwynedd.

We found their testimony extremely concerning and were dismayed to hear that they felt unable to use the BCUHB Whistleblowing procedures. They reported that staff raising concerns were often subsequently subjected to disciplinary action. We have no knowledge of whether this is the case, but it is worrying that staff have this perception.

We also heard several reports that staff who discussed their concerns in closed social media groups were called in by managers, their conversations repeated back to them verbatim and subsequently subjected to disciplinary procedures. We do not understand how this could be done but are concerned to hear these reports.

The key issue is that staff have a perception that it is dangerous to their careers to raise concerns about patient safety with senior managers at Betsi Cadwaladr University Health Board. This situation cannot possibly continue and we suggest that the North Wales Community Health Council be included as a named body in the BCUHB Whistleblowing Policy in order to restore staff confidence in the process.

BCUHB Staff comments received are set out below;

- *'It was plain how staff and patients felt about the centralisation of the Vascular Service to Ysbyty Glan Clwyd, but it was done without consideration for the effect on staff and patients. The staff at the Ysbyty Glan Clwyd Vascular unit are not sufficiently skilled to run a "Centre of Excellence" and patient care has deteriorated. The patient journey is not as smooth as it was.'*
- *'Pre centralisation the patient had a 2-4 week pathway mapped out, including a date for intervention, and follow up. There are now several incidents where patients have been waiting 13 months for intervention – there is a potential threat to limbs and amputations – which is devastating.'*
- *'Limbs are being amputated unnecessarily, and patients are being discharged without even being prescribed antibiotics.'*
- *'Have heard that ALAC is overrun and that they are having to work evenings as they are so busy,'*

- *‘What is being described is not unique to Vascular services in BCUHB.’*
- *‘Prior to centralisation of the service we would see patients in the Emergency Department who might have needed to be transferred to Ysbyty Gwynedd, but this was not a problem for the patients and feedback was always positive.’*
- *‘We now feel anxious as we can’t get the unit at Ysbyty Glan Clwyd to accept patients. We are being told there are no Vascular surgeons available, or no beds available.’*
- *‘The YGC Unit will only accept referrals from a Consultant – not even from SHOs / Registrars – referral has to come from a Consultant, which has meant staff going in out of their working hours to make referrals.’*
- *‘Referrals can no longer be made via GPs’*
- *‘The team at Ysbyty Gwynedd always listened’*
- *‘Patients are being put on medical wards rather than on the Vascular ward’*
- *‘Patients are now waiting 12-16-18-24 hours in Emergency Department, then they have to be transferred to Ysbyty Glan Clwyd – these are elderly patients, who in some circumstances just sent home (NB the North Wales CHC has grave concerns about the misuse of “Fit to Sit by” BCUHB)’*
- *‘The essence of centralisation is amazing and works well in places like Liverpool and London – if the right consultation had been done and the set-up was right then things may have been different, but it just feels like the Health Board have tried to fix something that wasn’t broken.’*
- *‘Staff feel anxious that things are just being swept under the carpet’*
- *‘Staff hope that the North Wales CHC will be listened to and that the Health Board doesn’t go in to denial again.’*

- *‘Staff feel that there is a cultural issue within the Health Board, and that the issue is not money’*
- *‘Receiving calls from patients 1 week after surgery who have not seen the district nurse, but the district nursing team have not even been advised that the patient has been discharged – these patients are left without dressings. Following up on this can take time and only 20 minutes is allocated per patient’*
- *‘There were Vascular outreach nurses in the West and when a patient was discharged, an email was sent to notify the necessary staff – which included information regarding dressings, medication – this worked really well’*
- *‘Staff at Ysbyty Glan Clwyd have no expertise in Diabetic Foot care– for example a high risk patient was referred to Ysbyty Glan Clwyd with a cold foot and simply sent home and advised to put a hot pack on it’*
- *‘Ysbyty Glan Clwyd staff have been wrongly appointed to posts – they have the term ‘Specialist’ in their job titles, but they have no experience or knowledge’*
- *‘We are constantly fire fighting and having to advise staff from Ysbyty Glan Clwyd not to undertake inappropriate or poor practices’*
- *‘Professor Dean Williams at Ysbyty Gwynedd was passionate; he cared and did a good job by anyone’s measure. The service should not collapse if a person leaves or retires. There should be succession plans in place.’*
- *‘We have looked at figures for amputations 6 months prior to centralisation and 6 months post centralisation – amputations have doubled during this time. These figures are sent to Welsh Government every month, but does anyone look at them?’*
- *‘Staff member deeply distressed after having seen a patient at clinic yesterday – has referred the patient on to Ysbyty Glan Clwyd. Knows the patient does not need an amputation, but fears that he will have one anyway. The patient is elderly and his wife will be unable to travel to visit him at Ysbyty Glan Clwyd.’*
- *‘Another patient was supposed to have their toe amputated at Ysbyty Glan Clwyd, but instead was left with a piece of skin hanging over*

what was left of their toe. This patient was sent home without antibiotics.'

- *'Staff member said she cannot sleep and is lies awake at night worrying about her patients.'*
- *'Knows of another critical patient who was taken from A & E to Ysbyty Glan Clwyd – was sent home from Ysbyty Glan Clwyd following an amputation and passed away'*
- *'Ysbyty Glan Clwyd Vascular service is like the blind leading the blind – the surgeons are ignorant and don't know how to run a team'*
- *'Staff find these situations very stressful and are considering leaving because they cannot work in an environment that is unsafe for patients,'*
- *'Getting a patient to the unit at Ysbyty Glan Clwyd in the first place is hard, then the patients are discharged inappropriately early to free up beds.'*
- *'Vascular surgeons should want to save limbs – Used to be that "saving limbs, saved lives" now they are "losing limbs and losing lives"'*
- *'The nurses at Ysbyty Glan Clwyd Vascular unit are making bad decisions, but it is not their fault, they do not have the right qualifications or expertise for these roles – and shouldn't have been recruited to these roles in the first place.'*

Concerns & Complaints

We heard of poor experiences at the relocated service in Ysbyty Glan Clwyd, we also heard the fears of patients who are yet to use the service for their long term conditions. These fears might be allayed by production of data showing the better outcomes claimed. However, this has not been forthcoming.

The record of certain surgeons at Ysbyty Glan Clwyd was the subject of much comment and the subsequent suspension by the General Medical Council (GMC) of one of those surgeons has not helped confidence issues. This may be further shaken by forthcoming Inquests.

- *'The Podiatry service at Wrexham has been brilliant, and the surgery at YGC went well, but after care was non-existent'*
- *'Father will not go near YGC - he thinks that if he goes there, he will never come back.'*
- *'There have been concerns with the management of vascular cases in the last two months. Two patients, one from each surgery, were discharged with management issues that were more complicated than the practice nurses felt comfortable with. (GP Practice staff)'*
- *'Years of good work setting up an unique service at Ysbyty Gwynedd is being pushed to one side by people who know nothing of the difficulties patients face, and an unique vascular service is collapsing into tatters'*
- *'Patient was advised that since Professor Williams resigned the patient list had been moved to Ysbyty Glan Clwyd and their new consultant would be Mr X. However they have since been advised that Mr X is on leave indefinitely, pending investigation. Patient contacted Ysbyty Gwynedd for advice re when they might expect their next scan and was advised that a locum would be working through cases. Patient feels that the Health Board should be held to account - had they have been able to source the best people to run the Vascular "Centre of Excellence" at Ysbyty Glan Clwyd then the patient would have backed the change, however the service is now disenfranchised with, they believe, no-one of any merit having been employed. Patient is anxious, is left unable to sleep at night and the situation does not fill her with confidence.'*
- *'My brother was a patient in YG (I have had permission from him to*

mention this today). He has been a vascular patient since 2012. Yesterday he had a problem with his foot - he received an emergency appointment at Podiatry at YG and was x-rayed immediately. However, there was no vascular consultant at YG on-site to see him, and an orthopaedic consultant saw to him. There was no facility and there was no-one on-call that could get there in time.'

- 'The Health Board has destroyed the good service that was in one place (Ysbyty Gwynedd) and have failed to duplicate it in another (Ysbyty Glan Clwyd) – this is not a 'Centre of Excellence'!*
- 'When patients went to the District Nurses from YG, the District Nurses received good service and a lot of information about the patient. Now they are given one sheet of very basic information and the service hadn't looked into how the patients would manage at home following discharge from hospital (from a local District Nurse).'*
- 'My uncle was referred to YGC for an aortic operation. He went in to theatre at 9am and didn't come out until 9.30pm. The family had been waiting around all day worrying about him and the length of time it was taking in theatre. The consultant passed the family and didn't say anything and didn't explain what was going on. The family is now pursuing an inquest into gross negligence.'*
- 'Patient was having problems during a Podiatry appointment at Ysbyty Gwynedd December 2019 - he had toes which were gangrenous and weeping through the dressing. Prior to centralisation, the patient would have been sent from Podiatry to the Vascular ward at Ysbyty Gwynedd and be seen within 20-30 minutes. On this occasion he was advised to present himself at ED in Glan Clwyd and get admitted directly to the Vascular Ward. On arrival at YGC ED he was advised by clerk that there was no vascular facility at YGC. He was subsequently prevented from going direct to the Vascular Ward and spent six hours in ED with a sodden dressing and the gangrenous odour was noticeable to all. This was extremely embarrassing for him. As a long term vascular patient he is of the view that there is no pathway for patients now and staff do not know what to do. Two months on his wound is still weeping and District Nursing team are visiting twice a day He informs us that he has been Type 1 Diabetic since the age of 13 and has never felt so scared. He intends to stay with family in North West England and admit himself to vascular services there rather than take the risk of being treated at Ysbyty Glan Clwyd in the 'Centre of Excellence'"*

- *'It is important to have specialist centres, but this is a disaster! Everyone would expect better at a Centre of Excellence, but this is a catastrophic failure! People need to stand up and admit the mess that they have made.'*
- *'Patient has written a letter of complaint to the Health Board which the Health Minister has received a copy of - the patient has not received a response from the Health Minister.'* (**Many people we spoke to report a similar experience – we have advised them to raise it as an issue under the Ministerial Code).**

Other Comments

Travel from Pwllheli, Bangor and the West of the North Wales region to Ysbyty Glan Clwyd was a particular concern. People felt that this had not been considered by BCUHB in making the service change. Concerns included not only patients' personal travel to YGC but also transfer of patients between sites and journey times to Bangor for clinicians when necessary to see patients not fit to travel;

- *'There was no vascular surgeon on site and we were told that there was no-one on-call that could get there in time,'*
- *'What about the golden hour? Ysbyty Glan Clwyd patients could make it to Bangor within the hour, and patients from Ynys Mon and Pen Llyn could make it to Bangor within the hour. What about patients from Pwllheli? It is a worry.'*
- *'My son was struck down in Abersoch and only just made it to Ysbyty Gwynedd by ambulance. If he needed to go anywhere further than YG, he wouldn't be here today. People need rapid access.'*
- *'I work in Caernarfon and live in Pen Llyn. It is very difficult getting anywhere by public transport. I caught the 7am bus from Abersoch to Ysbyty Gwynedd recently, which took me to Pwllheli then to Caernarfon and finally to Bangor. By the time I was home in Pwllheli, it was 6pm.'*
- *'Parking spaces is an issue at YGC – decisions are made by people who do not use the services.'*
- *'From Aberdaron to YGC is over 2 hours travelling time. When you are elderly and poorly, travelling is difficult.'*

In Tywyn the travel issues were even more acutely felt. There was a shared view that BCUHB had never addressed the issue of rurality and distance.

- *'Travelling from Dolgellau to Ysbyty Gwynedd, Bangor or Ysbyty Wrexham Maelor for hospital appointments is 50 miles one way, from Tywyn it is an extra 20 miles on top of that.'*
- *'Tywyn patients would prefer to attend Shrewsbury Hospital for specialist vascular care and would like this to be considered by BCUHB.'* (Those present asked if the Chair of the Mid Wales Health Collaborative could press for this as well)

- *‘Travelling time on the train from Tywyn to Shrewsbury is 1 hour 30 minutes. To travel from Tywyn on the train to Ysbyty Glan Clwyd would mean changing trains 3 or 4 times and a bus journey - over 4 hours each way.’*
- *‘Families of patients from South Meirionnydd receiving treatment at Ysbyty Glan Clwyd have been known to rent accommodation near the hospital in order to be able to visit and support their families.’*
- *‘Follow up care in the community needs to be improved.’*
- *‘Recruitment of staff needs to be improved. Patients are not being transferred back to Tywyn hospital from acute hospitals because there aren't enough staff to utilise all beds.’*
- *‘Cardiac Nurse runs clinics for patients at Ysbyty Dolgellau. This is very valuable service, and saves patients having to travel to Bangor for follow up appointments.’*
- *‘Greater use of the telemedicine facility would benefit patients in South Meirionnydd. Tele-viewing is already being utilised at Ysbyty Alltwen for Cardiac appointments.’*

Learning from what people told us

In March 2019 North Wales CHC advised BCUHB that it was essential to go out and re-engage with patients, the public and key staff about the proposed changes to the vascular service. If this had been done it is likely that the proposals would have been very different and the implementation of change would have been, in consequence, successful.

We remind the BCUHB that failure to consult meaningfully and effectively was one of the reasons it was taken into Special Measures nearly five years ago.

It is not too late for BCUHB to listen to patients and address their concerns. We suggest that there should also be a meaningful engagement with BCUHB staff – it has been particularly difficult to hear that well-established links between the Vascular Team and vital primary healthcare teams have been lost to the great detriment of patients.

During our engagement events we have heard consistently that patients are fearful of using the Centre of Excellence and have no confidence that their care there will be safe and timely. ***A worrying number of seriously ill patients told us they were planning to stay with relatives in England and gain access to safe Vascular care through Emergency Departments.***

Patients want to hear reassurance about the performance and outcomes of the revised vascular service. Many people have said they have written to Betsi Cadwaladr University Health Board requesting information under the Freedom of Information Act but have not received a response. People tell us that if the figures were positive then BCUHB would be keen to release them.

The North Wales CHC has also written to BCUHB requesting performance data and this has also been denied on the grounds that it is complex to prepare and will eventually be provided as part of the BCUHB review. We are told that it has been prepared and submitted to Welsh Government. Whether or not this is the case, it is a clear breach of the legislation and regulation relating to Community Health Council rights to information.

North Wales CHC Executive Committee considered the arrangements for the BCUHB vascular review at its meeting on 21st January 2020 and decided that it is vital that the review should be open and comprehensive. The North Wales CHC Executive Committee recommended that the Vascular Review, as undertaken by BCUHB, must engage with patients, public and staff; they believe that an engagement of this nature, led by a completely independent Chair with appropriate independent expert clinical advice would have credibility with all stakeholders and would allow BCUHB the opportunity to take a broader view of the issues and

problems.

North Wales CHC cannot allow BCUHB to again proceed to change a service without meaningful and current engagement and/or consultation within the terms of the current regulations (*Section 183 of the NHS (Wales) Act 2006 and Community Health Councils – Constitution, Membership and Procedures Regulations 2010 – Regulations 26, 27 refer*).

We are encouraged to hear that BCUHB will now undertake further engagement in relation to service changes originally proposed in the 2012 “Healthcare in North Wales is Changing”.

On a positive note, no one felt that the concept of a Centre of Excellence was unsound. It was generally agreed that the problems had been related to setting it up and its deleterious effect on existing highly valued services.

Following its engagement with over 275 patients, carers and NHS staff, North Wales Community Health Council heard consistently that BCUHB should;

- Re-establish, as a matter of urgency, the Limb Salvage Service and its community/primary care links
- address, as a matter of urgency, the documented concerns of patients and staff in relation to the Glan Clwyd vascular service

Acknowledgements

We thank the people who took the time to tell us about their experiences and share their ideas.

We hope they influence Betsi Cadwaladr University Health Board to recognise and value what they do well – and make improvements so that the things that cause very real difficulties for people using the NHS are addressed.

Feedback

We want to hear what you think about this publication, and any suggestions about how we could have improved it, so we can use this to make our future work better.

Office contact details

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|--------------|---|---|

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Appendix 1

Extracted Minute – Services Planning Committee – 19th March 2019

| | |
|----------------|---|
| SP19.23 | |
| 19.23(1) | <p>Mr Mark Wilkinson provided an update in respect of vascular services and went on to make the following observations:</p> <ul style="list-style-type: none"> • BCUHB had secured funds via a grant and charitable funds to facilitate the building of a specialist vascular hybrid theatre to provide care for complex, specialised tertiary vascular care; the theatre and the ward is located at Ysbyty Glan Clwyd. • Additional staff to fund the theatre and ward is to cost in the region of £1.5 million per annum. Surgeons and associated staff have been recruited. • The finer details of the operational details are being worked through. • The vascular ward and the hybrid theatre will be operational with effect from 8 April 2019. • It was acknowledged that there have been a number of concerns received from the public in respect of the location of the specialised unit. The decision to site the unit at Ysbyty Glan Clwyd was borne out the Health Care in North Wales is Changing Consultation (HCiNWIC) (2012) with the decision being made in 2013, but addressed in 2019. • The BCUHB Board had discussed these concerns at recent Board meeting following which an Independent Member of the Board tendered her resignation. • The Board has made a conscious effort to step up engagement and raise awareness of the reason for the location of the unit by having an increased press presence. • A further report outlining the engagement undertaken to address the public concerns will be presented to the BCUHB Board in March 2019. The paper will also outline the change, as proposed in 2013 along with the case for change. <p>Dr Adrian Drake-Lee the CHC appointed representative to the Vascular Task and Finish Group went on to make the following observations:</p> <ul style="list-style-type: none"> • The outcome of the consultation in 2012 and the conclusion thereof in 2013 noted that specialist centre for complex arterial surgery would be sited at YGC. Non-complex surgery would be undertaken across the three DGHs. • To maintain the service consultants undertook a 1 in 4 rota with on call alternating between Wrexham Maelor and Ysbyty Gwynedd. • One high dependency unit bed and hybrid theatre has been funded. 18 vascular beds were to be provided. This has been reduced to 12 and is considered to be inadequate. • Whilst the specialist centre was under development anaesthetists were relocated, this has now created a lack of middle grade doctors capable of delivering anaesthesia at YGC. • A vascular scientist has been recruited, but has nowhere to work from; the number of nurses recruited to run the ward is inadequate. It was noted that a podiatrist has been appointed. As the CHC representative on the Task and Finish Group Dr Drake-Lee has noted his concerns around the staffing for the unit. • Lower limb salvage should be offered across the 3 DGHs and not just at |

| | |
|--|--|
| | <p>Ysbyty Gwynedd.</p> <ul style="list-style-type: none"> Patients from the West requiring complex vascular surgery will be face with excess travelling time to attend YGC. |
| | <p>Mr Mark Thornton went on to make the following observations:</p> <ul style="list-style-type: none"> It is understood that routine vascular surgery is to be carried out at the three DGHs with the specialist care unit at YGC being an addition to the current provision. Whilst this is a positive some patients will clearly be disadvantaged due to increased travel times. This has also caused public concern in respect of the perceived gravitation of services to the East. The Health Board needs to allay the public concerns that this is not the case. The original outcome of the consultation was to centralise services, but a solution was found to ensure service remained at the three sites, yet it now appears that the service is being centralised. Mrs Baxter made the following points The options for the specialist service are still being worked through. Patients requiring treatment need to be treated in a timely manner The majority of the staff required for the specialist unit has been appointed; concentrated efforts are being made to appoint further staff. Prior to the HClNWiC consultation in 2012, vascular services need to be improved, as the service has critical linkages with other healthcare services. The 300 patients using the specialist service was set out in HClNWiC i.e. 100 from YGC and 100 transferred from each of the Wrexham Maelor and Ysbyty Gwynedd sites. It was also clear from HClNWiC, that there would be change. All professional advice, received at the time was consistent recommending the centralisation of specialist services; the advice remains the same. BUCHB has never offered a full vascular service on all three sites. The Health Impact Assessment and Equality Impact Assessments have been repeated; the evidence for the change has not changed. Mr Ryall-Harvey made the following observations It would be useful if the Health Board could set out which services are being offered from which sites, so that the public are aware. The CHC is very aware of the issues such as rurality and siting such a service so that it meets the needs of the population and so that it meets the professional guidance and recommendations. The CHC had previously advised the Chair of the BCUHB and the Chief Executive Officer that further consultation or engagement with the public might be prudent as there legitimate concerns that a local service is being removed. The work being undertaken by the BCUHB communications team to engage with the public was acknowledged; this should continue so as to inform the public. It was confirmed that at the current time vascular services are not robust across North Wales; the evidence to hand suggests that the service is not being provided in the best way; if changes are not made the service will only worsen. |

Appendix 2

Email to BCUHB Chair – 7th October 2019

Mark & Gary

Over the past week the CHC has received letters from a number of individuals as well as complaints from several patients regarding the changes to Vascular Services in Bangor. I understand that you will have received similar letters and emails. NW CHC raised a number of issues at the time of the original proposal in 2012 and again in March of this year (*see attached extracted minute*). Our concerns on the potential issues for patients have been consistent since 2012 and I attach for your attention a copy of our comments on vascular services extracted from our response to Healthcare in North Wales is Changing (D7).

The CHC's Executive Committee will be considering the issue at its meeting tomorrow as an item of Extraordinary Business. I think it is likely that the Executive Committee will ask that the matter is discussed under Any Other Business at the Board to Board meeting on Thursday and having regard to the seriousness of the concerns I would strongly suggest that we do so.

The issues that the CHC is concerned about are probably well known to you already and they are;

- Loss of the two highly respected and experienced consultant vascular surgeons at Bangor. When this matter was brought up at Services Planning in March 2019 we urged that BCUHB engage with staff in order to avoid this eventuality. We believed this could have been avoided and is a grave loss to the service and the people of North Wales
- We advised BCUHB to engage with service users on the changes and suggested strongly that a consultation undertaken 7 years previously might now be considered to be out of date. It is disappointing that this advice was not followed given that inadequate consultation and engagement was one of the reasons BCUHB was taken into Special Measures. We have been assured that there would be continuous engagement with patients following the changes. Based on a report (*see attached*) provided by a volunteer patient liaison worker, we understand that only 3 patients have been engaged with since the changes and we regard this as wholly inadequate
- The Bangor service was noted for its achievements – particularly in relation to amputation rates. The CHC has received allegations that there has been a significant fall in performance. We would like your comments on this as a matter of urgency together with details of any SUI's and Never Events
- We were under the impression that emergency and elective services would remain at Ysbyty Gwynedd and this is now not the case. I recall that at our Full Council meeting on 22nd January 2019 Mark confirmed this understanding (*see attached*)
- We are concerned that some patients have become too unstable and ill to be transferred from YG to YGC and have suffered very poor outcomes as a consequence.

Mark Thornton and Garth Higginbotham (Chair & Vice-Chair) have asked for early confirmation that this matter can be discussed at B2B and, if not, could you set out a timetable for a detailed response.

Regards

GEOFF RYALL-HARVEY

PRIF SWYDDOG / CHIEF OFFICER

Cyngor Iechyd Cymuned Gogledd Cymru / North Wales Community Health Council.

Appendix 3

NWCHC Listening and Engagement Vascular Events

- **29 November 2019** - Plas Heli, **Pwllheli**
- **06 December 2019** - Quakers Meeting House, **Bangor**
- **14 January 2020** - Neuadd Pendre, **Tywyn**
- **16 January 2020** - Holywell Leisure Centre, **Holywell**
- **24 January 2020** - Aberconwy MIND, **Llandudno**
- **28 January 2020** - Colwyn Bay Cricket Club, **Rhos-on-Sea**
- **03 February 2020** - Morfa Hall, **Rhyl**
- **12 February 2020** - Town Hall, **Llangefni**
- **13 February 2020** - Ty Pawb, **Wrexham**
- **26 February 2020** - Y Ganolfan, **Porthmadog**
- **26 February 2020** - Caernarfon Library, **Caernarfon**
- **27 February 2020** - HWB Dinbych, **Denbigh**
- **06 March 2020** - Amlwch War Memorial Hall, **Amlwch**
- **06 March 2020** - Gwelfor Community Centre, **Holyhead**

Appendix 4

Extract from NW CHC Response to Health Care in North Wales is Changing - Vascular Services Proposals**C5 Vascular surgery services**

People told us a number of things about the proposals for Vascular Surgery Services. Some supported the idea of centralising the service so that resources and expertise are on one site, but others did not. Many were concerned about the travel that might be involved. Some people said it was difficult to comment on the proposals if they did not know which hospital would be chosen as the specialist hospital.

People who agreed with centralising the service said things like:

‘Some of the proposals are in a way a good idea as you can have centres providing expert, specialist care.’

‘Any proposal which makes better use of staff and facilities and better use of financial resources is to be welcomed.’

‘If resources are not available (e.g. shortage of specialists etc.) then it makes sense to centralise to a degree although - if it’s not broken don’t fix it’.

‘We have several major hospitals in our area which I believe would be quite capable of specialising in the fields being proposed to be outsourced to hospitals outside our area. If attention was given to transferring more mundane surgical procedures to our community hospitals and thus freeing up area’s in our major hospitals for more specialised departments – this then would improve patient’s experience and complement the excellent work our hospitals are currently doing.’

Some also said:

‘Where will the new centre be – how can we accept the proposals when we don’t know?’

People who disagreed with the idea of centralising services were concerned that making one hospital a specialist centre would downgrade the other hospitals in North Wales with implications for patient care and staff. These comments are typical of those we heard:

‘Vascular complaints can affect all age groups within a community and should be available in at least one local hospital.’

‘As we get older, certain illnesses are more common so only having one hospital dealing with vascular problems is wrong – people from the Lleyn would maybe have to travel to Wrexham! Wrong!’

‘Centralising is only a short term approach to a long term problem. Team up with the Mersey deanery to share staff and open up North Wales to the expertise over the border’.

‘Nothing that centralises services away from the community is a good idea.’

Some people told us that the services should remain as local to them as possible, and were particularly concerned about emergencies:

‘Centres of excellence are a good idea to offer more knowledge and specialist skills. For more urgent illnesses it is ok to have a specialised centre, but not ok for emergencies.’

‘If any NHS services get centralised – i.e. from all three main hospitals at present to being concentrated on one hospital site, then we who are in the furthest areas would have long journeys on bad roads which are also extremely busy during the summer. We could suffer unnecessarily.’

‘Centralising specialist non -emergency services could give savings and improve service delivery, but emergency treatments and A&E must be maintained locally – we are overly reliant on the air ambulance which is a life saver for people in this area.’

Many people were concerned that having specialist services on one site only would mean that patients and their relatives would have further to travel:

‘Centralising some services such as vascular will necessitate many people travelling long distances which if an emergency could prove fatal’

‘De-centralisation would allow better access – not sure if centralisation is a good idea. Further to travel for some possible treatments.’

‘If there are changes to all three general hospitals so some only do certain specialities like vascular – if Wrexham is chosen then all patients from Llŷn, Anglesey, Caernarfon have to travel a long way. Could result in deaths especially using the busy A55. Proposals are only a good idea if no long distances involved as transport in North Wales is difficult and expensive.’

‘I think some of the proposals are a bad idea. If there are people that are very ill and need to get to a hospital with complex vein surgery, but the hospital near to them doesn’t have it then they are going to have to travel.’

People were also concerned about the impact of the proposals on the Ambulance Service and asked whether it could cope with more and longer journeys:

‘... there is little consideration of the Ambulance Service who will be expected

to provide the transport to the services. We understand they too are overstretched and over budget but they are a vital link and should be specifically covered in your plans.'

9 We believe, however, other proposals will need to be modified if the CHC is to be confident that they will be in the interest of people who use services. The CHC will also need further assurances on some aspects of these services, for example, co-ordination with local authorities, voluntary and independent sector organisations, and progress on transport. They are:

- Community hospital services, including minor injury and x-ray services
- The complex vascular surgery service
- Older people's mental health services

The complex vascular surgery service

45 The CHC agrees, in principle, with the health board's proposals for providing complex vascular surgery and appreciates the further information provided about medical staffing, core vascular surgery services, the impact on radiology and other disciplines and the use of intensive care and high dependency beds. It would have been helpful to know more about your plans for retaining and recruiting nursing staff at all three sites.

46 You gave your reasons, again, for not selecting the site for complex surgery before the consultation. This does not alter our view that this makes it difficult to consider, in full, the implications of your proposals. For, example, we are concerned about the connection between your decision about the site for complex vascular surgery and your forthcoming decisions about centralising acute general surgical services

47 We will wait for your decision about the site for complex vascular surgery and the implications this has before commenting any further. In the meantime we will make plans to monitor the effect of your decision on recruiting and retaining nursing staff in this specialty.

8. Vascular services

At the moment, we provide these services at all three acute hospitals in North Wales.

Vascular services are being looked at because:

- Vascular surgery is becoming much more specialised and this affects how services are organised
- There is clear and growing evidence that there is a positive link between how much surgery is undertaken in a hospital and better results for patients

Vascular services involve operations on veins and arteries, including treatment for a partial or total blockage of an artery.

These services can also include treatment for aneurysms, a bulge in an artery that can weaken it, causing it to leak or burst.

Emergency treatment can include life threatening emergencies, such as a larger artery bursting (burst Aortic Abdominal Aneurysm or AAA), when there is a critical lack of blood to a limb, or injuries from road traffic accidents.

- Screening for abdominal aortic aneurysms (AAA) is being introduced for men aged over 65 based upon clear clinical guidelines from professional groups. This will reduce the number of emergency operations and give patients a better chance of survival
- The way vascular surgery is done is changing, which will reduce how much traditional 'open' surgery is done

Our local vascular clinical team agree that major arterial surgery (which involves about 300 cases per year) has to change. This is so we can improve safety and quality. The clinicians leading this work have proposed that this surgery should be done at either one or two hospitals and many of the vascular clinicians thought that two sites would be preferable as quality standards could be maintained with more local access.

Our proposal

Having considered their work, the Health Board believes that we can achieve the best results for patients if this complicated arterial surgery is provided in one acute hospital in North Wales. We would also concentrate emergency vascular surgery at the same hospital.

A single, larger team will mean that patients will continue to get better results and the service will be more efficient.

Routine vascular services and care before and after operations would continue to be provided in all three acute hospitals. We are still considering which hospital would be best, if we do move services to one hospital. You may want to tell us your views about this.

