

# National Vascular Registry Aortic Devices Update

## ICVR May 2022

Arun Pherwani MS MPhil FRCS

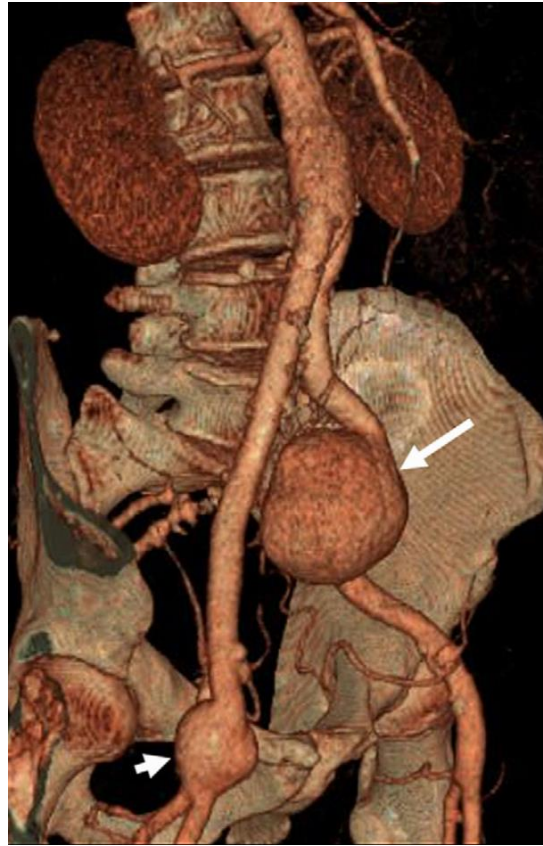
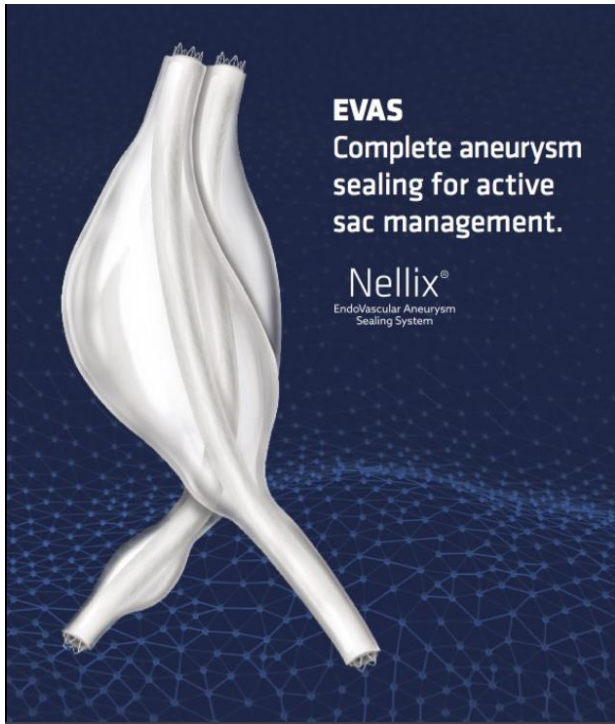
Consultant Vascular Surgeon

Chair Audit & Quality Improvement Committee VSGBI

Clinical Lead for the NVR

# National Vascular Registry

- 2013: Data collection in current format (some data exists back to 2005)
  - Carotid interventions (endarterectomy and stenting)
  - Aortic repairs (open, EVAR, complex); Aortic Devices July 2020 onwards
  - Lower limb angioplasty/stents
  - Lower limb surgical revascularisation (bypass, endarterectomy)
  - Lower limb amputations.
- Commissioned with government funding
- National Clinical Audit and Patient Outcomes Programme (NCAPOP) for England and Wales (although NVR is UK-wide).
  - NCAPOP comprises around 40 national clinical audits



Pictorial Review

## Imaging and management of complications of open surgical repair of abdominal aortic aneurysms

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# Aortic Devices report

## First Do No Harm

The report of the Independent Medicines and Medical Devices Safety Review



July 2020



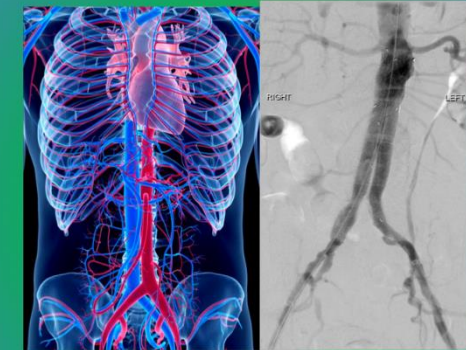
Proposal for a medical devices registry

Short report

© HQIP 2020

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## National Vascular Registry: Short Report



Developing and implementing implantable medical device capture for aortic aneurysm repair

June 2021




*'collect and publish information on implantable medical devices to monitor safety'*

*'prioritise the collection of implantable medical devices especially in novel procedures on medical registries'*

<https://www.vsqip.org.uk/reports/developing-and-implementing-implantable-medical-device-capture-for-aortic-aneurysm-repair/>

# AAA devices & revisions data entry – guide



VASCULAR SERVICES QUALITY IMPROVEMENT PROGRAMME

National Vascular Registry (NVR)

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**AAA Devices and Revision Procedures FAQs**

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**Entering an aortic device**

Within the procedure page of a AAA repair record on the NVR, there is now a devices section where you can record the implanted devices used.

There are two main ways to enter a device:

1. Select the manufacturer from the dropdown list and search for it using the product code
2. Scan the long barcode on the device sticker label

We have worked with the Association of British HealthTech Industries (ABHI) to approach all the companies that manufacture aortic devices and accessories. The vast majority of companies and devices should be included in the NVR, but we appreciate that not all are. If you are unable to find a device, please email the NVR inbox ([nvr@rcseng.ac.uk](mailto:nvr@rcseng.ac.uk)) with the company's name, device name/description, product code and barcode number. We will then endeavour to see if the device can be added in the future.

**Devices**

Find Implant(s)

Manufacturer: Please Select...

\* Product Number:

\* OR: Scan Barcode:

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Matching Implant(s)

Manufacturer	Product Number	Brand Name	Description	GTIN	Select
No items to display					

If the required Component cannot be found and needs to be added to the system, please e-mail the NPS Support Team with the Component Manufacturer Name, Catalogue Number and Description.

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Selected Implant(s)

Manufacturer: Cook Medical \* Batch/Lot Number: 8428099

Product Number: ZSLE-13-107-ZT GTIN: 10827002552347

Description: ZENITH FLEX WITH SPIRAL-Z TECHNOLOGY AAA ENDOVASCULAR GRAFT

\* Was this Device used on IFU?  No  Yes

**Selected Implant(s)**

Manufacturer: Cook Medical \* Batch/Lot Number: AC1059382

Product Number: AAA-DIST-BODY-INVEI GTIN: 10827002325972

Description: CUSTOM MADE DEVICE

\* Was this Device used on IFU?  No  Yes

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Manufacturer: Cook Medical \* Batch/Lot Number: AC1059381

Product Number: FEN-THORACO-ABDOI GTIN: 10827002380353

Description: CUSTOM MADE DEVICE

\* Was this Device used on IFU?  No  Yes



**1D Barcodes**  
Codabar, Code 11, Code93, MSI, Code 128, UCC/EAN-128, Code 39, EAN-8, EAN-13, UPC-A, ISBN, Industrial 25, Interleaved 25, Standard25, Matrix

**2D Barcodes**  
QR, DataMatrix, PDF417, Aztec, Hanxin, Micro PDF417

Endurant™ II Stent Graft System  
 2020-12-04  
 REF ESBF3214C103EE  
 SN V08177169

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Endurant™ II Stent Graft System  
 2021-08-18  
 REF ETLW1620C124EE  
 SN V29545463

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Endurant™ II Stent Graft System  
 2022-06-10  
 REF ETLW1620C93EE  
 SN V29977664

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Endurant™ II Stent Graft System  
 2020-10-23  
 REF ETEW2020C82EE  
 SN V08147694

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Endurant™ II Stent Graft System  
 2020-11-01  
 REF ETCF3232C49EE  
 SN V08153249

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Endurant™ II Stent Graft System  
 2021-01-23  
 REF ETEW2020C82EE  
 SN V08216601

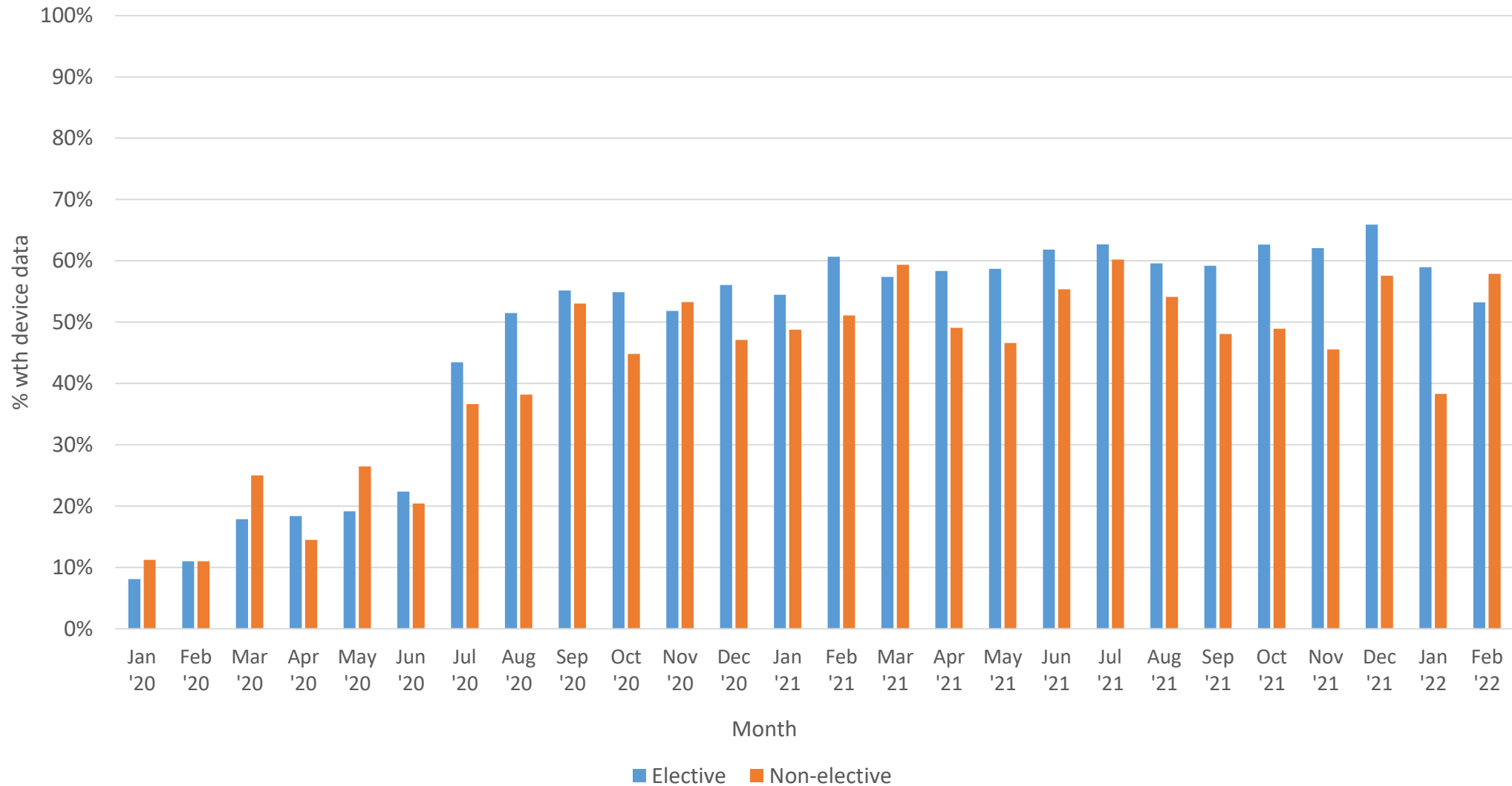
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**Abbott Vascular**  
 Perclose ProGlide 6F (2.0 mm)  
 (01) 0 8717648 11315 4  
 (17) 211130 (10) 0010641 (91) 3027  
 REF 12673-05 LOT 0010641  
 2020-01-06 2021-11-30

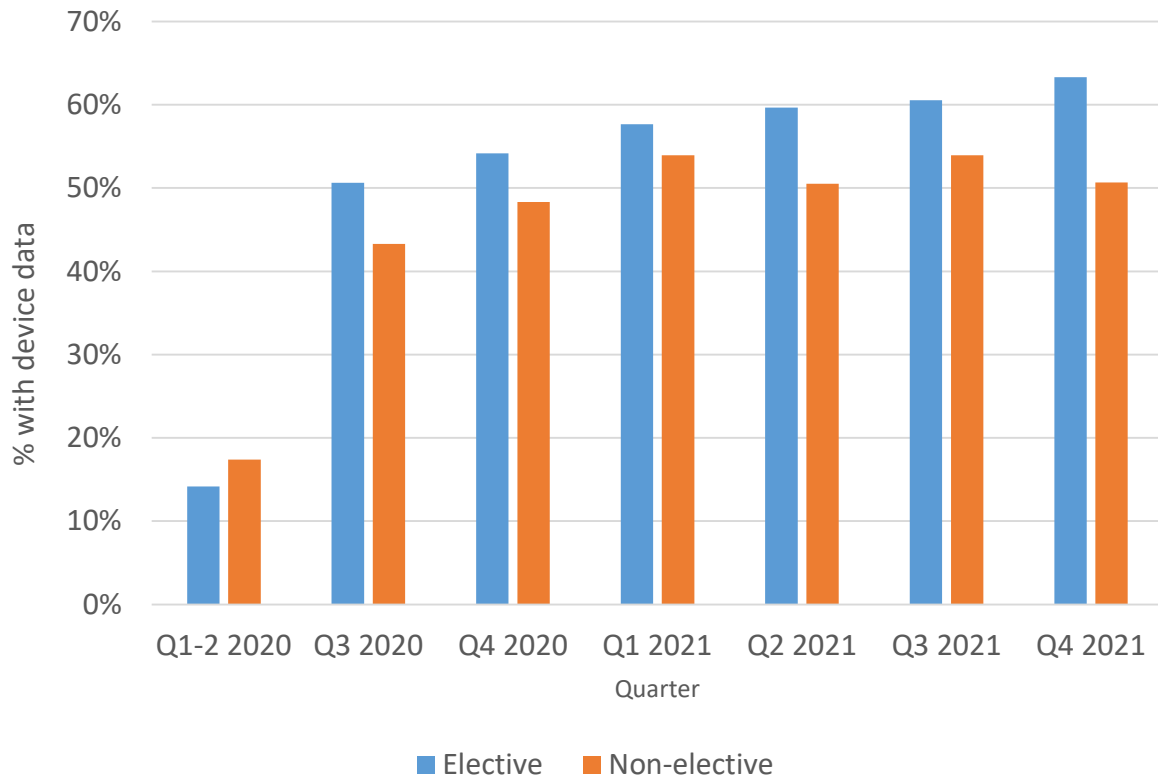
**Abbott Vascular**  
 Perclose ProGlide 6F (2.0 mm)  
 (01) 0 8717648 11315 4

# Percentage of AAA procedures with device information between January 2020 and February 2022, by month of operation and mode of admission

(4,341 submitted procedures)

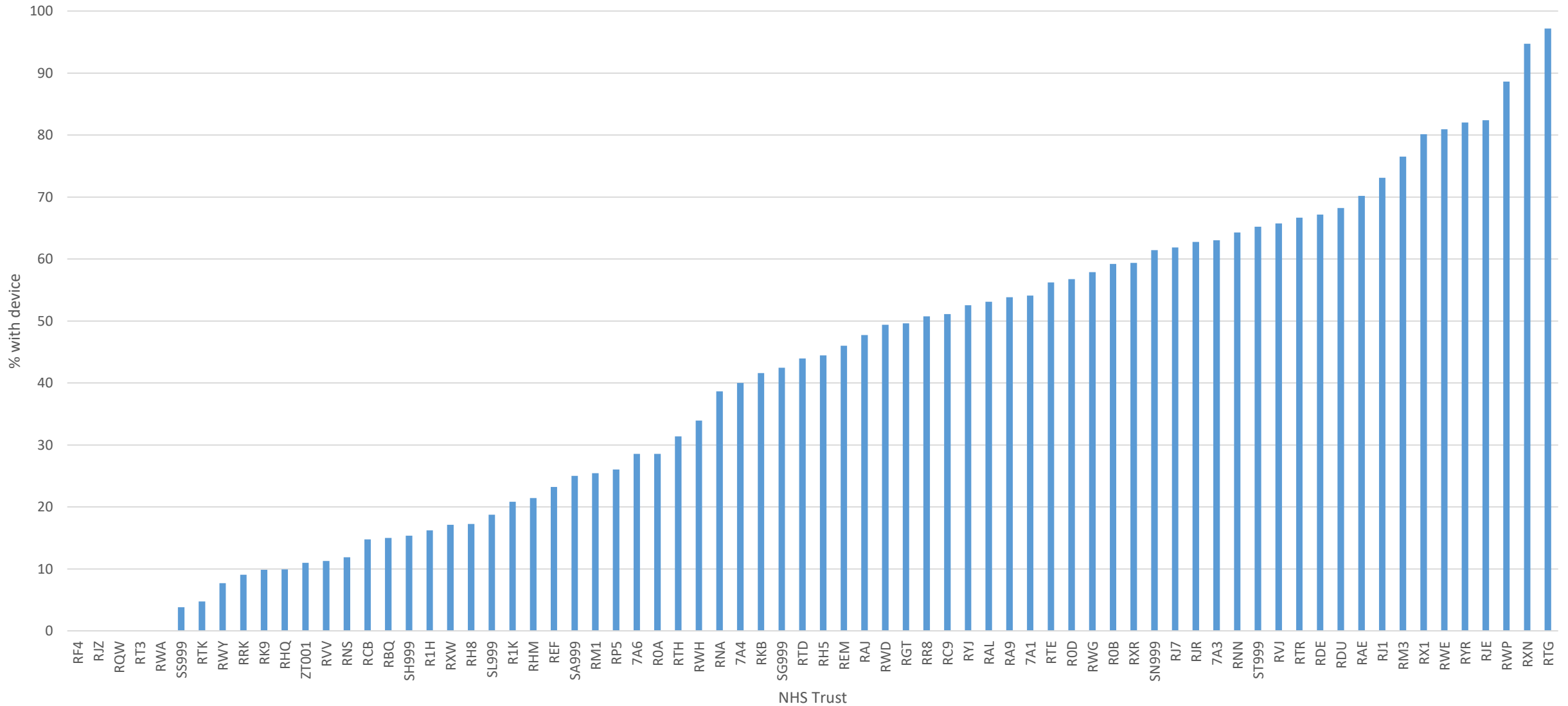


# Device data capture by quarter



	Number of AAA procedures with device data	Total AAA procedures submitted	% of AAA procedures with device data
Q1-2 2020	276	1,829	15%
Q3 2020	538	1,107	49%
Q4 2020	665	1,263	53%
Q1 2021	553	978	57%
Q2 2021	793	1,375	58%
Q3 2021	676	1,150	59%
Q4 2021	673	1,122	60%
<b>Total</b>	<b>4,174</b>	<b>8,824</b>	<b>40%</b>

# AAA Device capture by NHS Trust

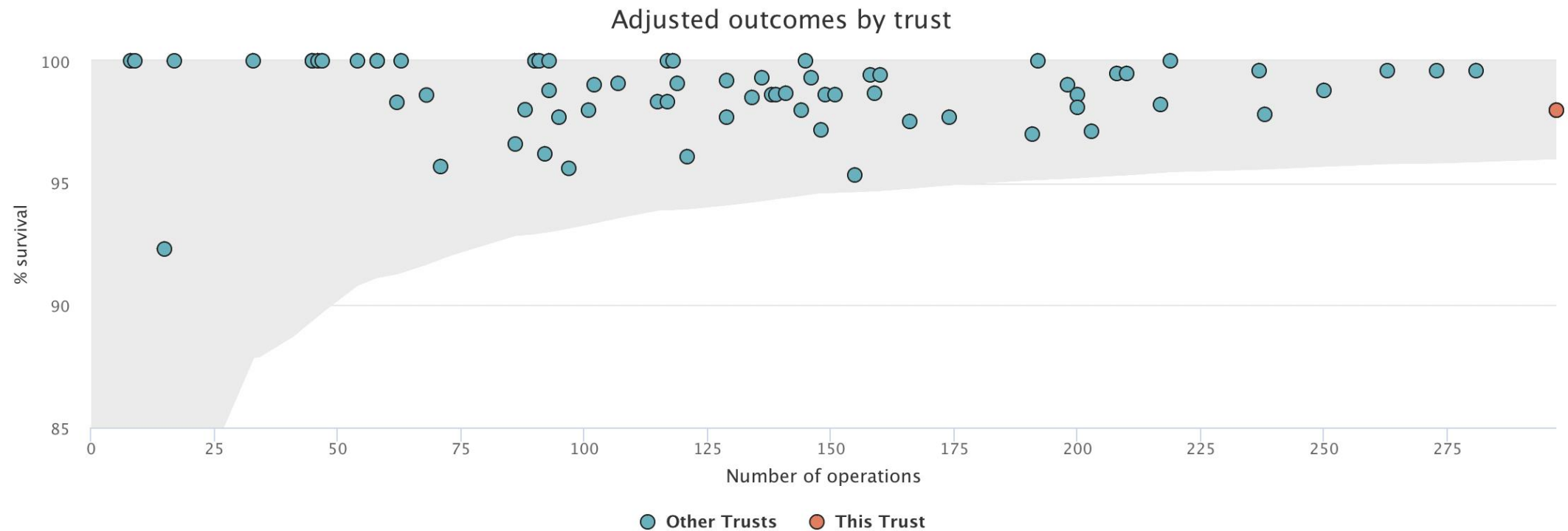




# AAA Repair

University Hospital of North Midlands NHS Trust

## Trust outcomes



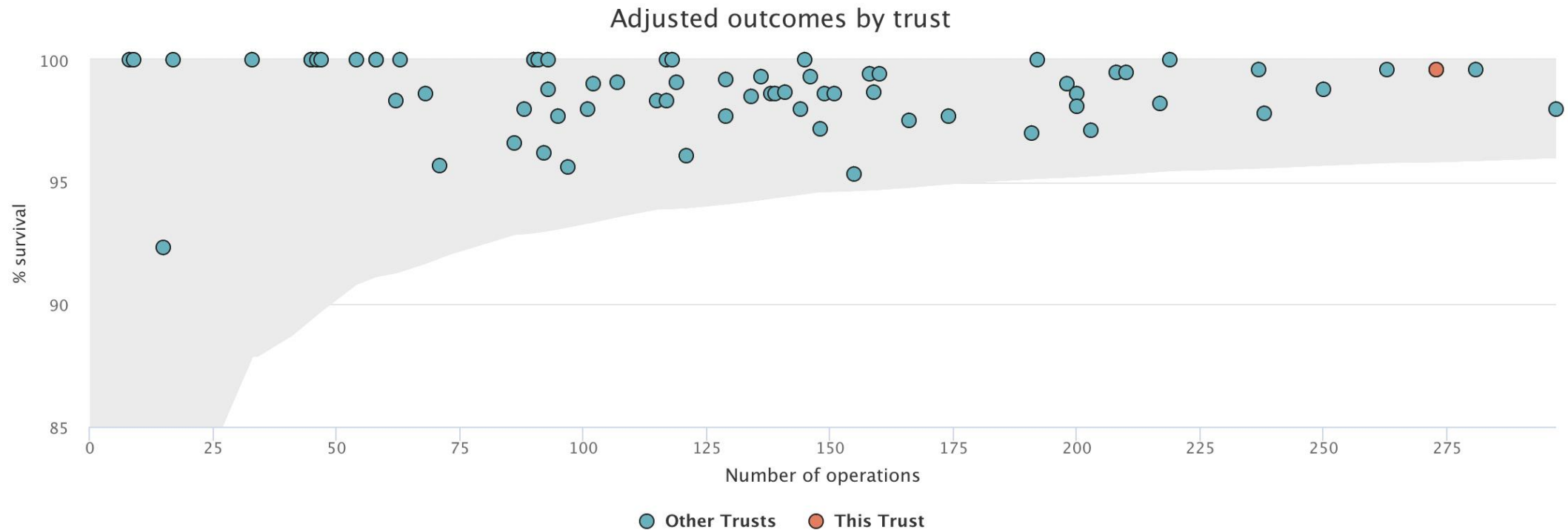
No. of procedures	Adjusted survival rate %	Length of stay for open repairs Average (typical range)	Length of stay for EVAR Average (typical range)
297	98	7 (6,9)	3 (1,3)

Screenshot

# AAA Repair

Cambridge University Hospitals NHS Foundation Trust

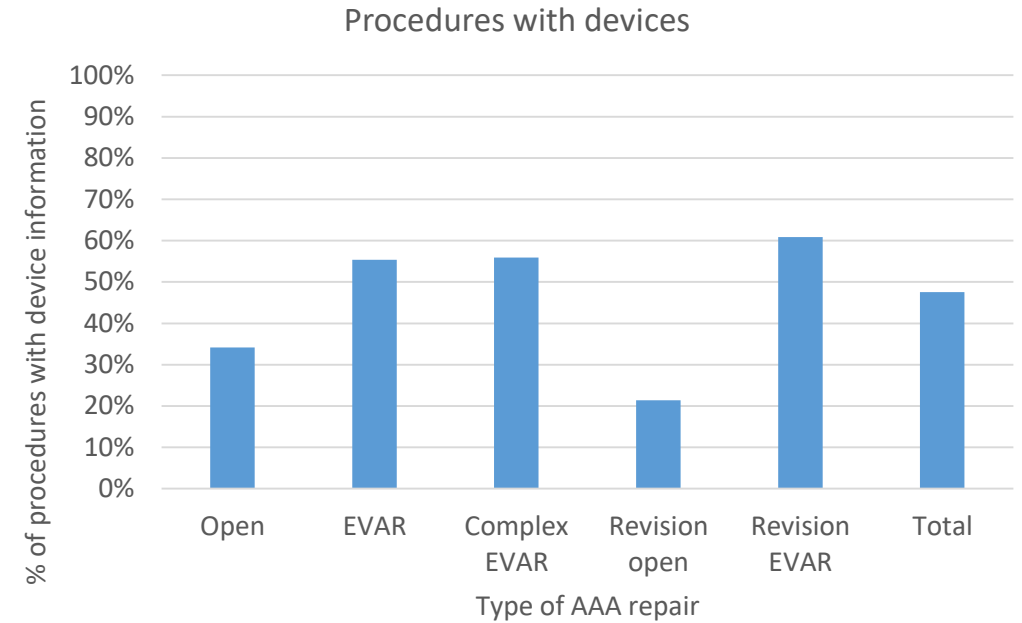
## Trust outcomes



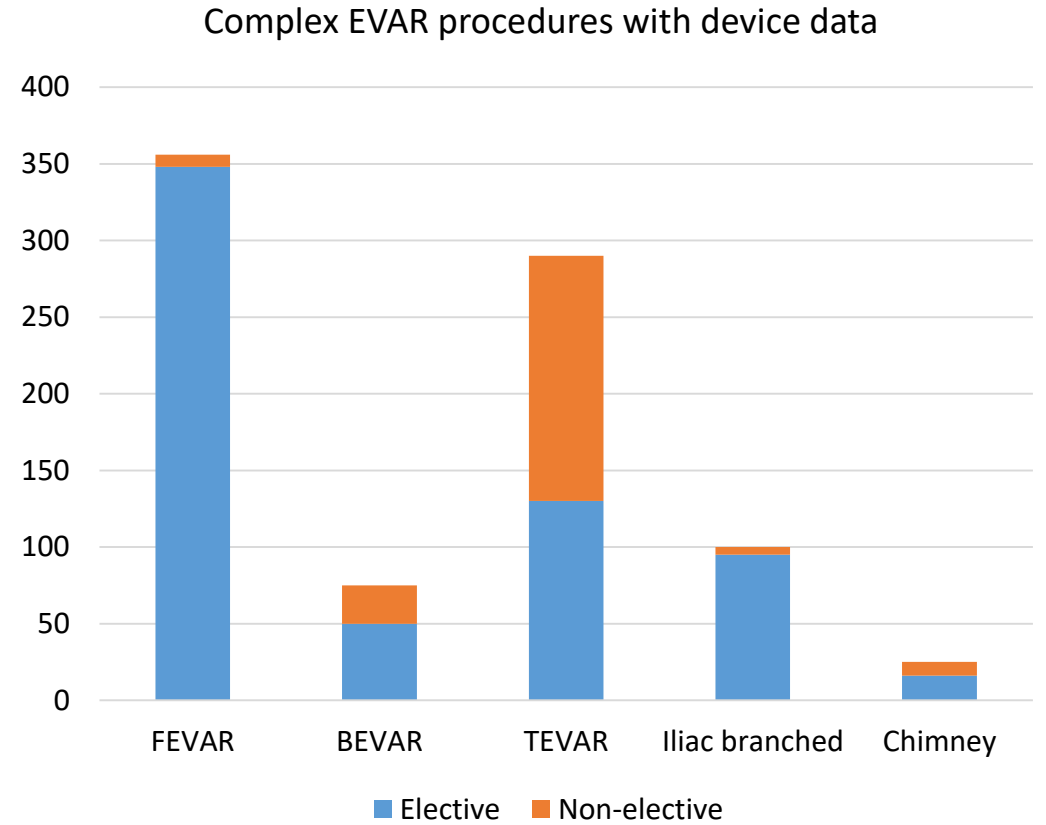
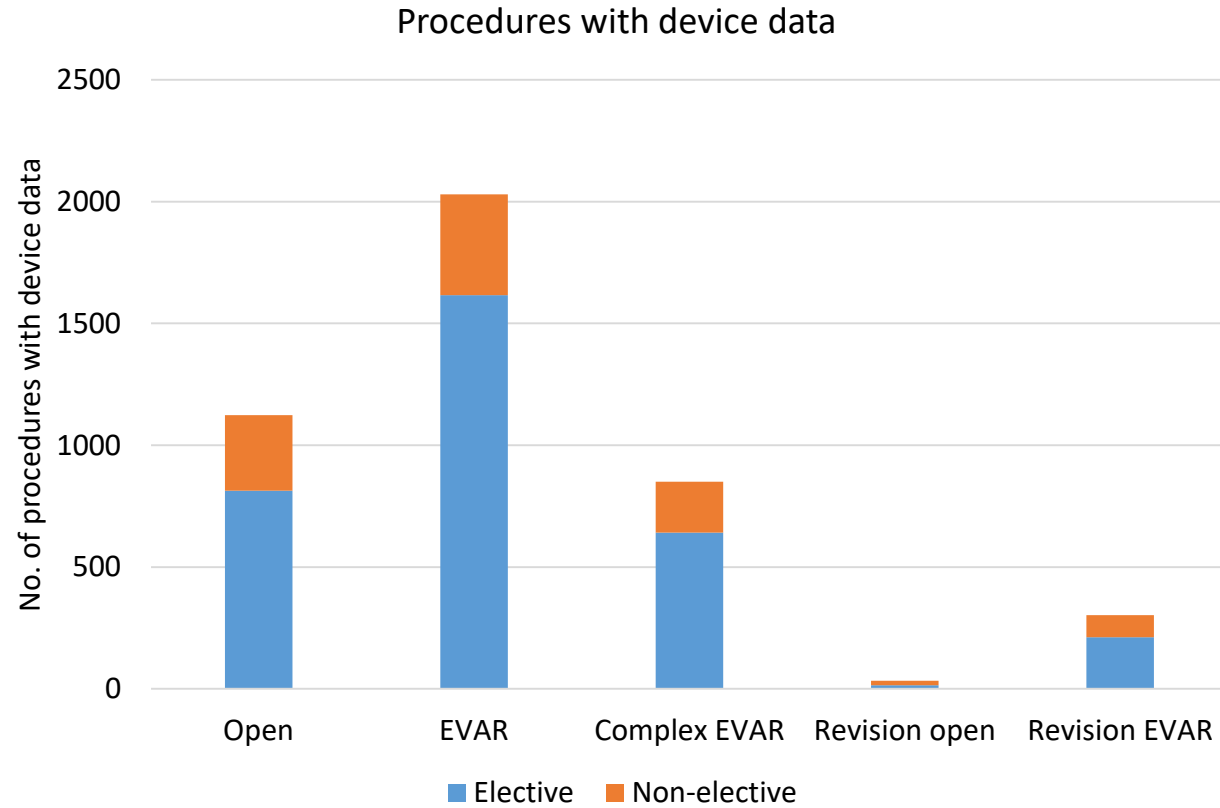
No. of procedures	Adjusted survival rate %	Length of stay for open repairs Average (typical range)	Length of stay for EVAR Average (typical range)
273	99.6	7 (6,9)	2 (1,3)

## Device information available by type of AAA repair

Repair type	Elective	Non-elective	Total	% with device data
Open	813	310	1,123	34%
EVAR	1,616	414	2,030	55%
Complex EVAR	642	209	851	56%
Revision open	15	19	34	21%
Revision EVAR	212	91	303	61%
<b>Total</b>	<b>3,298</b>	<b>1,043</b>	<b>4,341</b>	<b>48%</b>

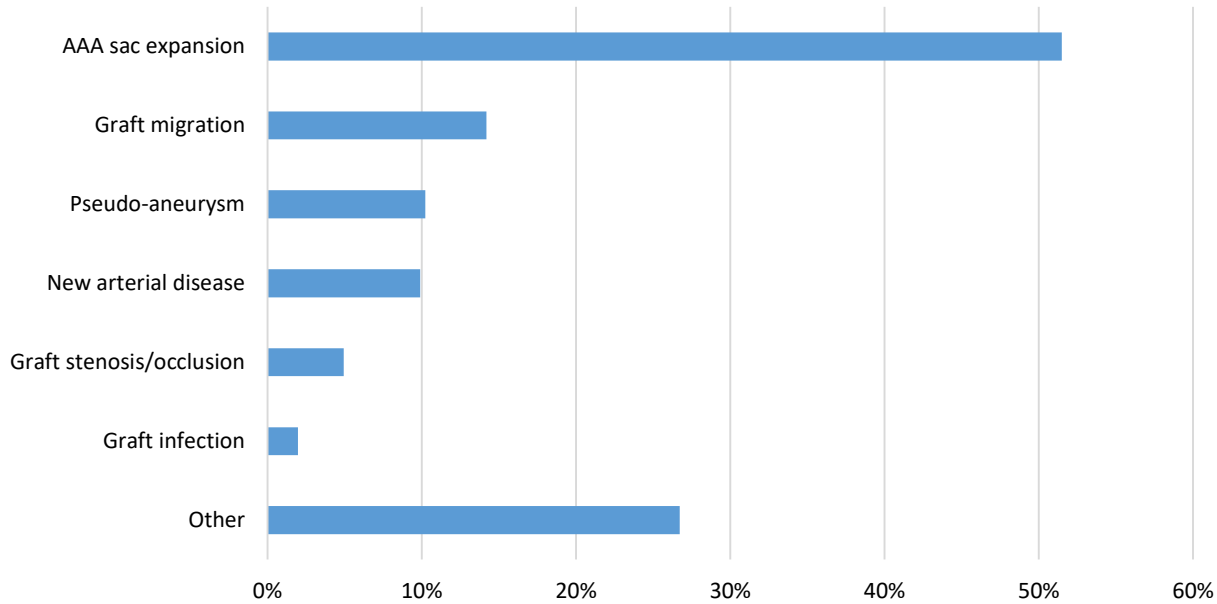


# Procedures with device information, by admission mode

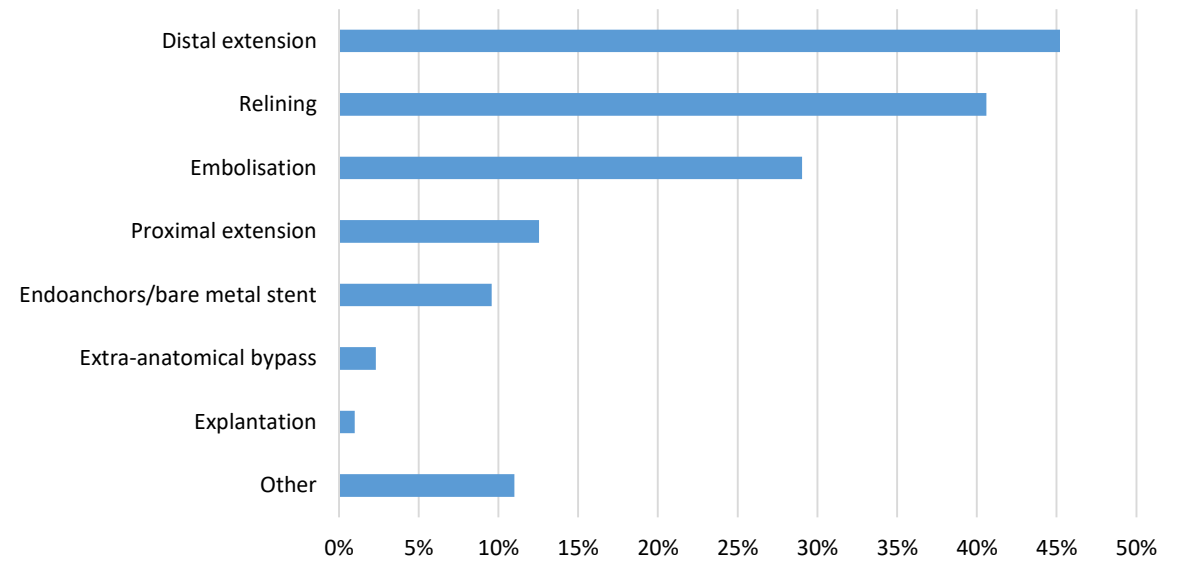


# Revision EVAR procedures

Revision EVAR procedures with device data by indication



Revision EVAR procedures with device data by procedure type



# Next steps

- Aortic devices updated report – November 2022
- Medical Devices Safety & Registration Programme – Vascular & IR
- Carotid – patches, stents
- Lower limb – stents, drug eluting technology
- National Registries should take the responsibility of accountability – procedures, outcomes and device data capture
- Support colleagues with device data capture

# NVR Team

- **Staff at Clinical Effectiveness Unit,  
Royal College of Surgeons of England**

- Sam Waton, NVR Manager
- Amundeeep Johal, Senior statistician
- Qiuju Li, Research Fellow in Medical Statistics
- Panagiota Birmbili, NVR Clinical Fellow
- Ellie Atkins, NVR Clinical Fellow
- David Cromwell, CEU Director

**Previous Chair** – Jonathan Boyle

- **Clinical leads**

- Arun Pherwani, Consultant Vascular Surgeon
- Robin Williams Consultant Interventional Radiologists

- **Partner organisations**

- Vascular Society for Great Britain & Ireland
- British Society of Interventional Radiology
- Vascular Anaesthesia Society of Great Britain & Ireland

