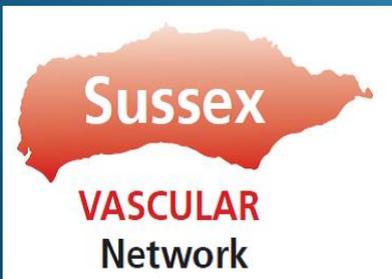
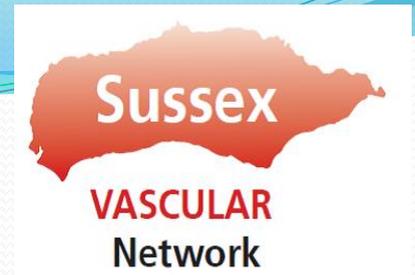


# AAA Surgery, a two tier system?

Susan Ward and Jason Clark  
Vascular Nurse Specialists



# Sussex Vascular Network



- Population of 1,6million
- AAA screening in West Sussex since the 1980's, East Sussex and Brighton and Hove since 2012
- NAAASP 696 men in surveillance, ( 130 AAA>4.5cm)
- Arterial Centre in Brighton, Royal Sussex County Hospital
- Non arterial centres in
  - Western Sussex, Worthing and St Richards Hospitals
  - East Sussex, Eastbourne and Conquest Hospitals
  - Surrey and Sussex, East Surrey Hospital

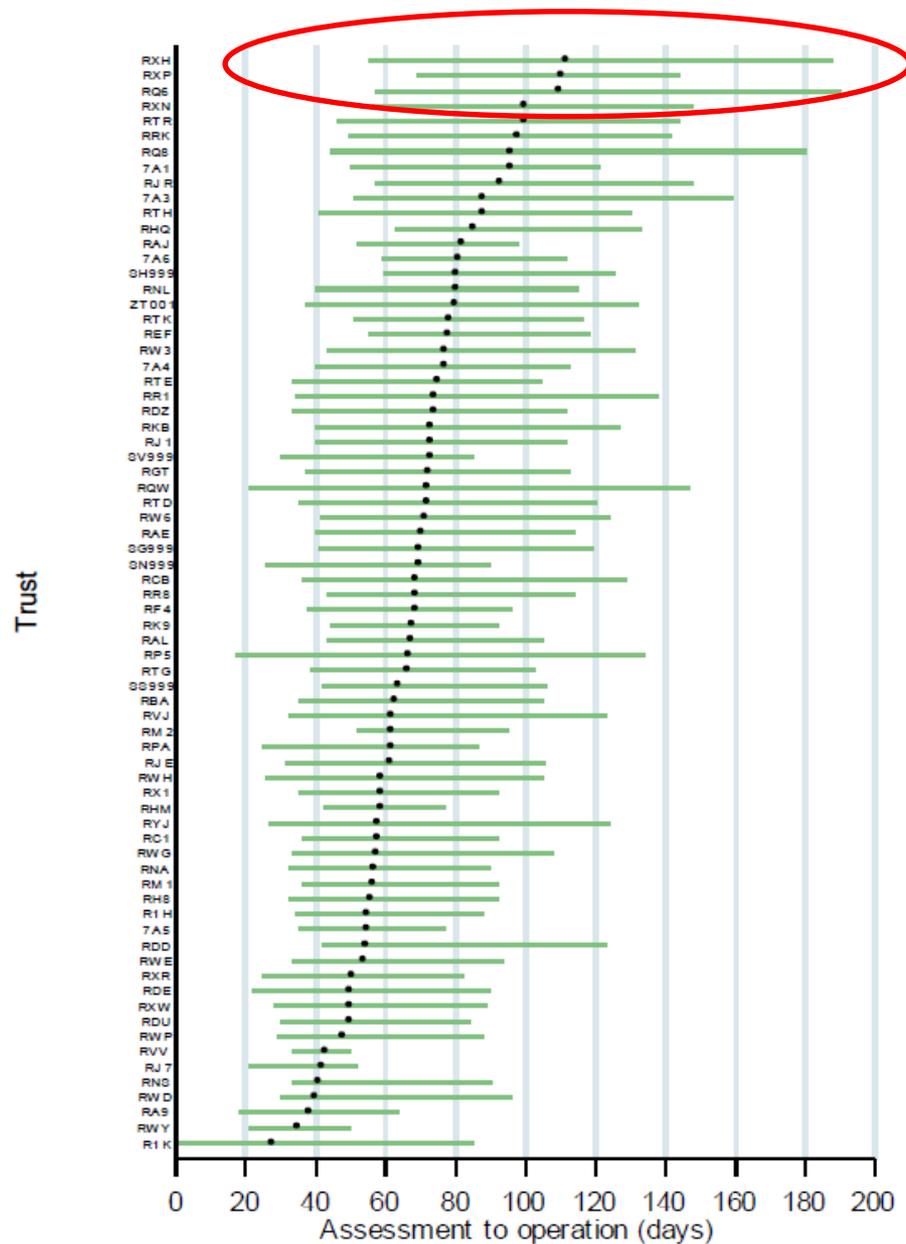


Why look to see if screened AAA patients seen as more important than incidentally found AAA patients?

# How did we compare?

NVR 2017  
Annual Report

Figure 2.1: Median (IQR) time from assessment to treatment (days) for patients who had elective infra-renal AAA repair between January and December 2016



# Screened Patient Death

- Referral from NAAASP 23.08.2016
- AAA 5.6cm
- Clinic 25.08.16
- CTA form rejected, then patient cancelled next CTA date to go on holiday
- Ruptured in Portugal 25.11.16 (day 94)

# Incident Investigations

- Reported to NHS England via NAAASP
- Treated as an Serious incident and duty of candour investigation commenced
- Pathway examined
- External review of all patients referred from NAAASP

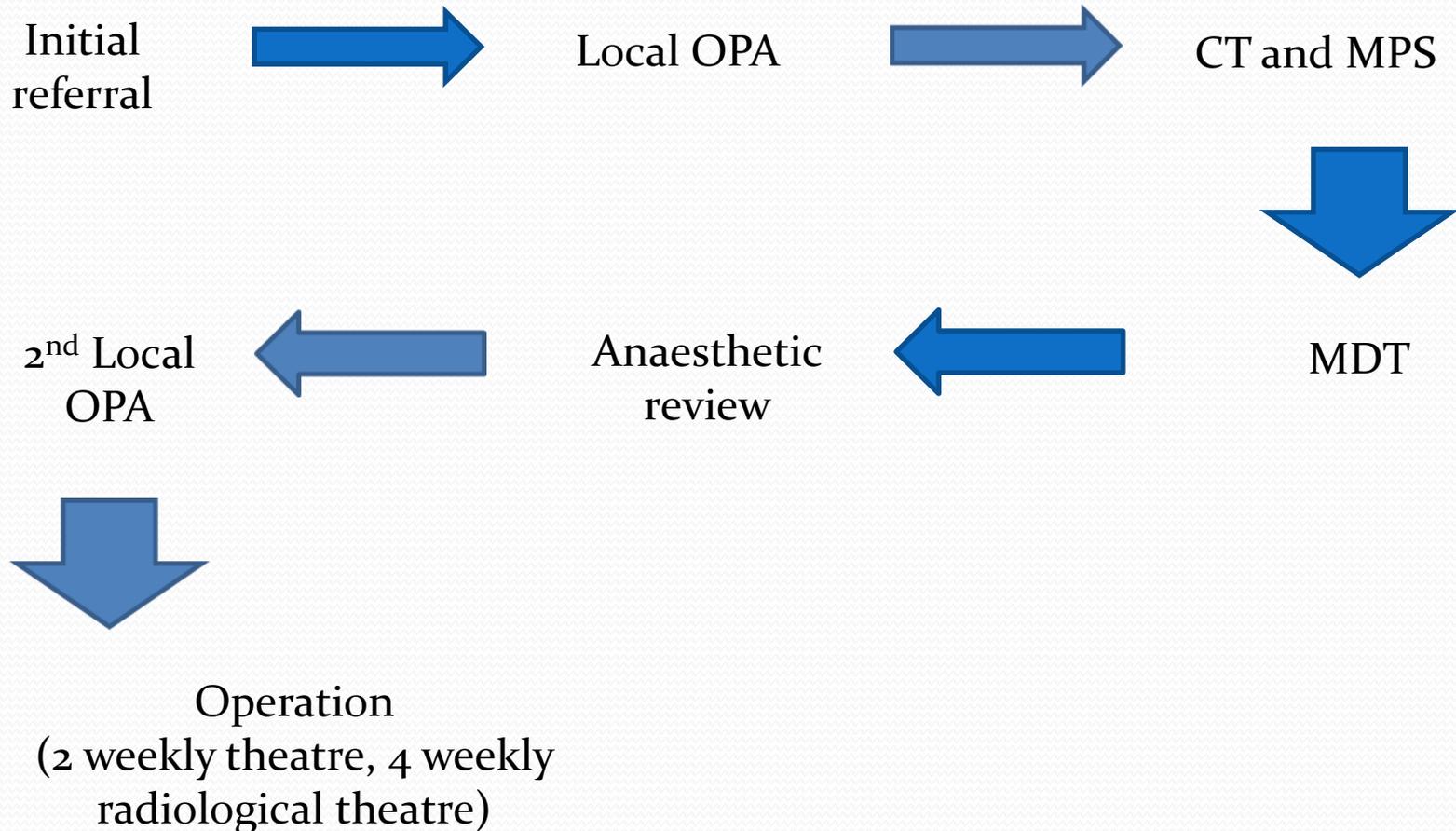
# Incidental Finding Patient Death

- Referred to Vascular and Cardiology January 2017
- Cardiology suspected an AAA so requested a CTA, completed 21.03.17
- Seen by Vascular Team 04.04.17
- Further investigations completed by 26.06.17
- MDT 10.07.17
- Proposed date for surgery 30.11.17
- Ruptured 12/9/17 (day 235)

# Incident Investigations

- Not required to do a serious incident investigation
- Not required to treat as Duty of Candour
- Vascular team asked to do a formal investigation, wanted to show the disparity between the two pathways within the organisation

# Screened AAA work up target 8 weeks (56 days) to treatment



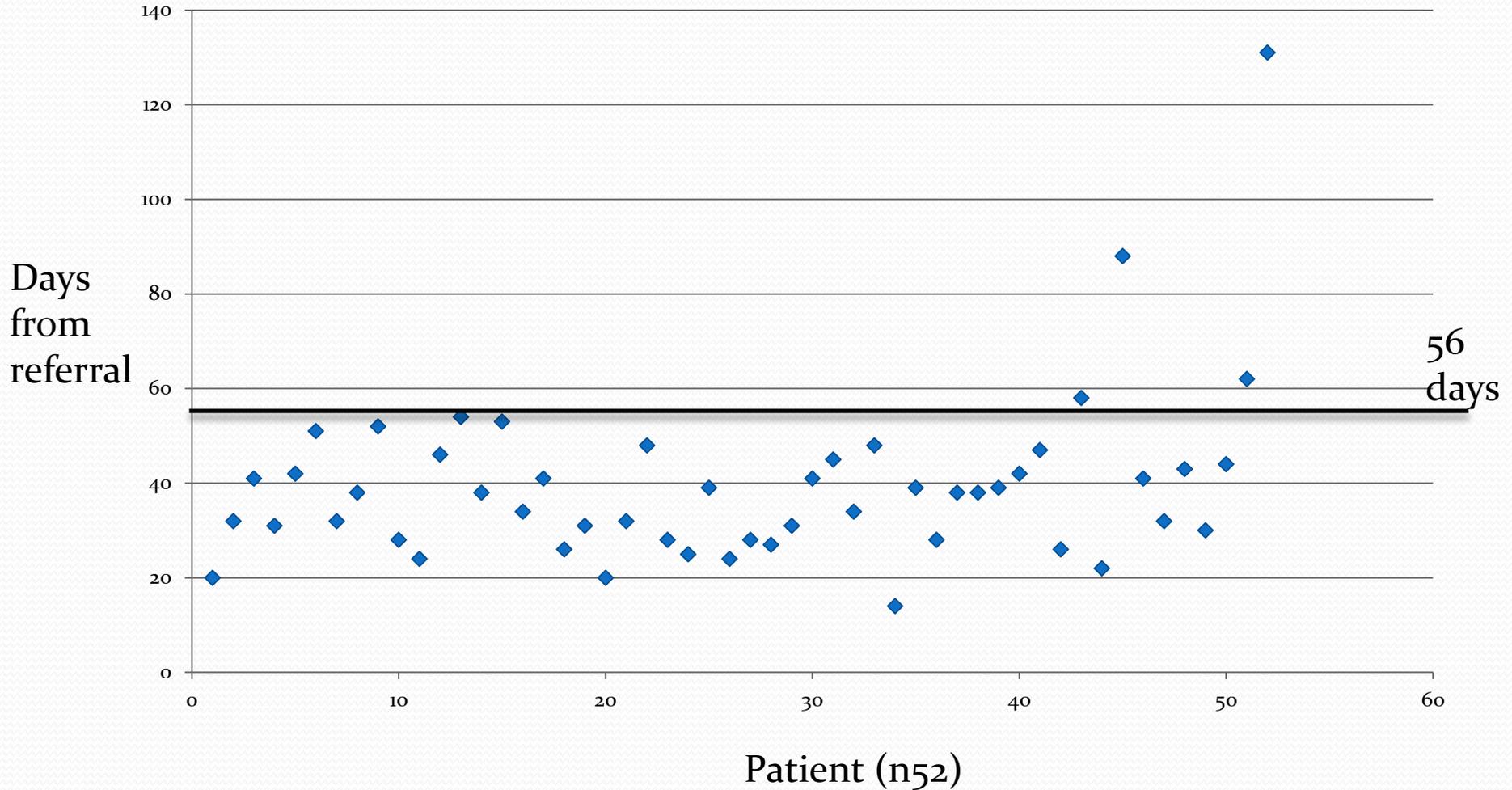
# Screened AAA referrals

- NAAASP, 53 referrals in 2017-8, patients seen as near to home as possible in spokes
  - 25 fit for surgery within 8 weeks
  - 16 operated on within 8 weeks
  - 4 breached 8 weeks, but all operated on within 10 weeks
  - 5 delayed beyond 8 weeks due to Pt choice
- 
- 10 unfit at 8 weeks but later operated
  - 3 non standard operations (FEVAR)
  - 9 Unfit – never for surgery
  - 1 declared unfit but later had surgery
  - 1 died during workup
  - 4 not yet fit for surgery

80%

# Length of work up for screened

**AAA-** OPA, CT, MPS, MDT, ARC (1 pt declared unfit at first opa)



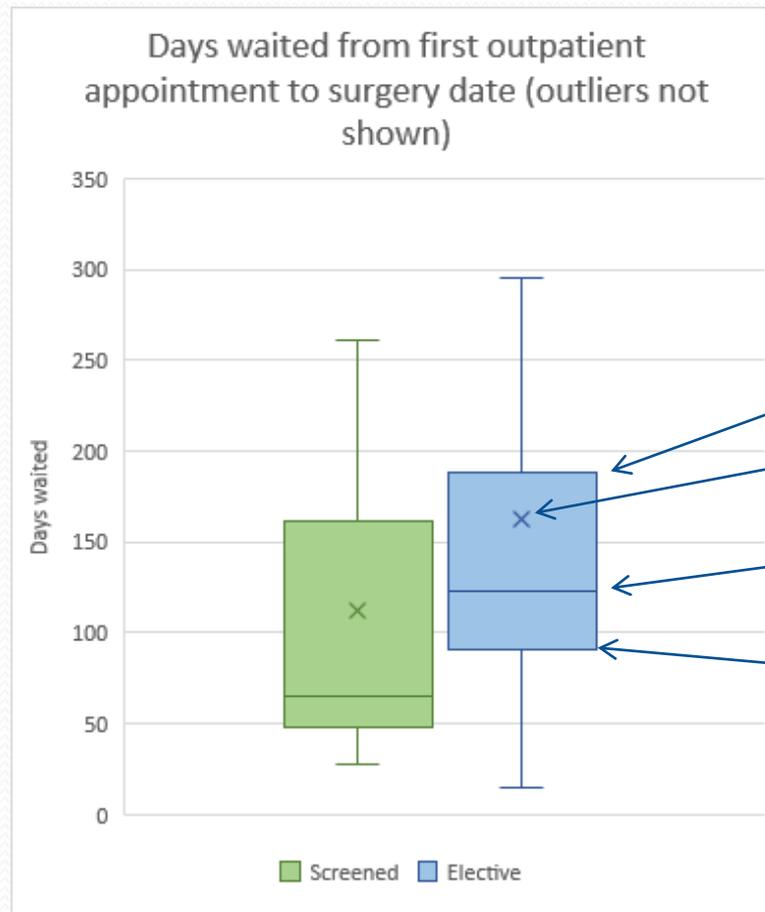
# Operated AAA 2017/18

Total numbers of AAA repairs RSCH April 2017 - March 2018	162	6 patients excluded were revisions of previous repairs
Patient Source		
Screening (NAAASP)	Emergency (ruptures)	Elective (incidental findings, patients outside of NAAASP remit)
n39 (39m)	n37 (31m, 6f)	n86 (74m, 12f)
Average patient age at admission		
Screening	Emergency	Elective
70.03	74.14	73.95
Treatment Type by source		
Screening	Emergency	Elective
44% EVAR	62% EVAR	65% EVAR
3% FEVAR	0% FEVAR	12% FEVAR
54% Open repair	38% Open repair	23% Open repair

# Incidental AAA operations

- Incidental findings seen in all centres for outpatients and partial work up, various referral methods and no standard pathway
- Emergencies transferred from spokes to hub

# All non emergency AAA operation 2017/18



75% QTR

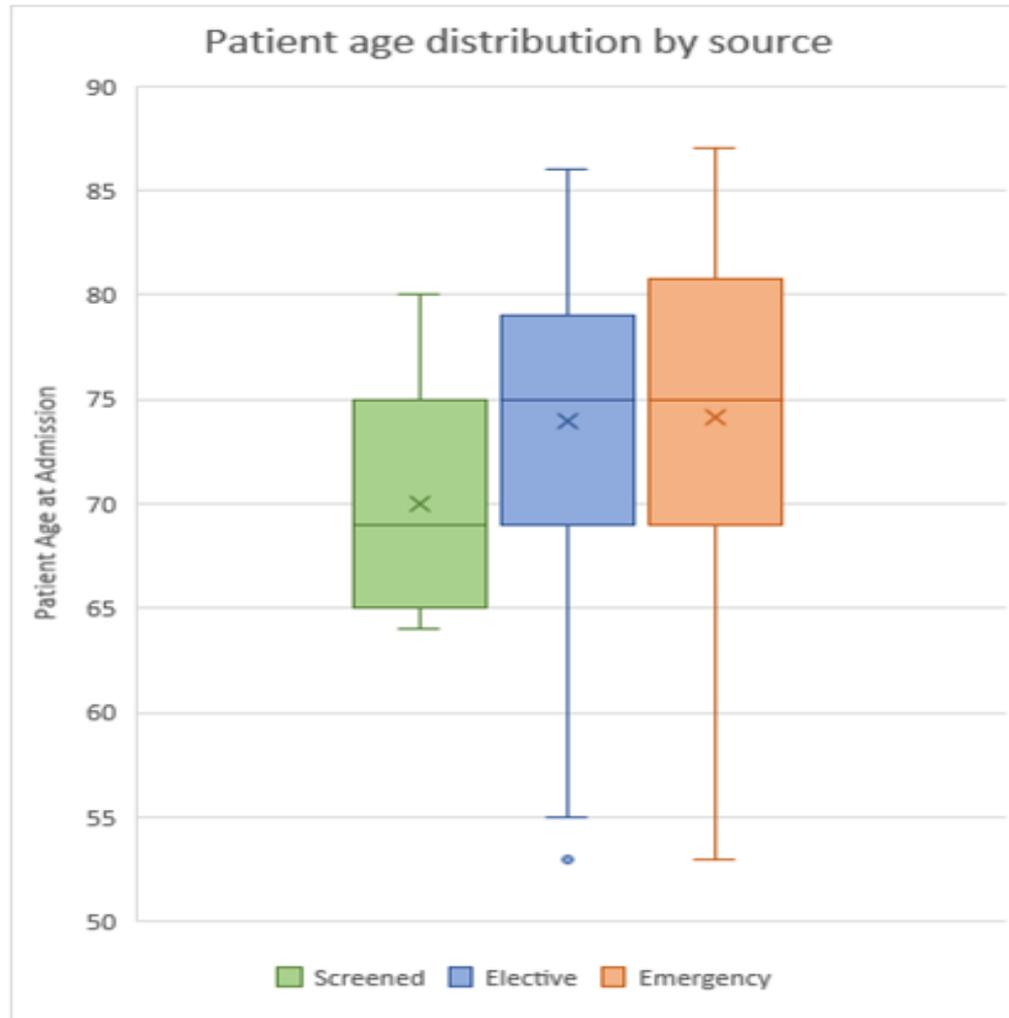
Mean average

Median average

25% QTR

Over 350 days  
Screened n2  
Elective n6

# Are screened AAA younger and fitter?



**Yes!**

X = mean age  
Midline = median  
Box 25%-75% QTR

# But...

Average days waiting time from first consultation to surgery date		
	Screening	Elective
<b>All patients</b>	<b>112</b>	<b>162</b>
Age at admission <64	49	90
Age at admission 65-74	104	153
Age at admission 75-84	141	183
Age at admission 85<		187

..at every age group elective AAA wait longer than screened

# Do screened AAA have fewer complex operations?

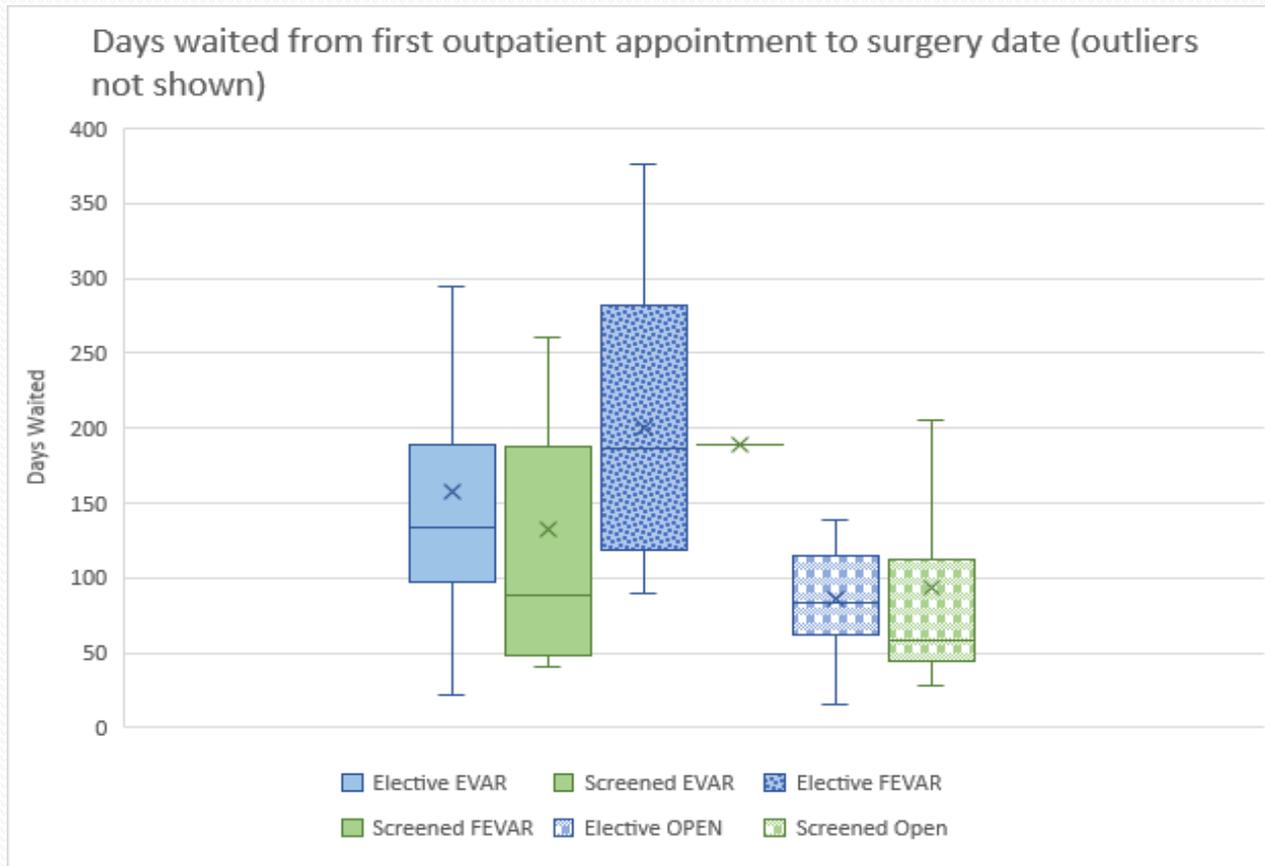
Screening (NAAASP)	Elective (incidental findings, patients outside of NAAASP remit)
n39 (39m)	n86 (74m, 12f)
Ave. age Screening	Ave. age Elective
70.03	73.95
Screening	Elective
44% EVAR	65% EVAR
3% FEVAR	12% FEVAR
54% Open repair	23% Open repair

**Yes, less likely to have FEVAR and more likely to have open repair**

## Treatment Type by Age (screened and elective)

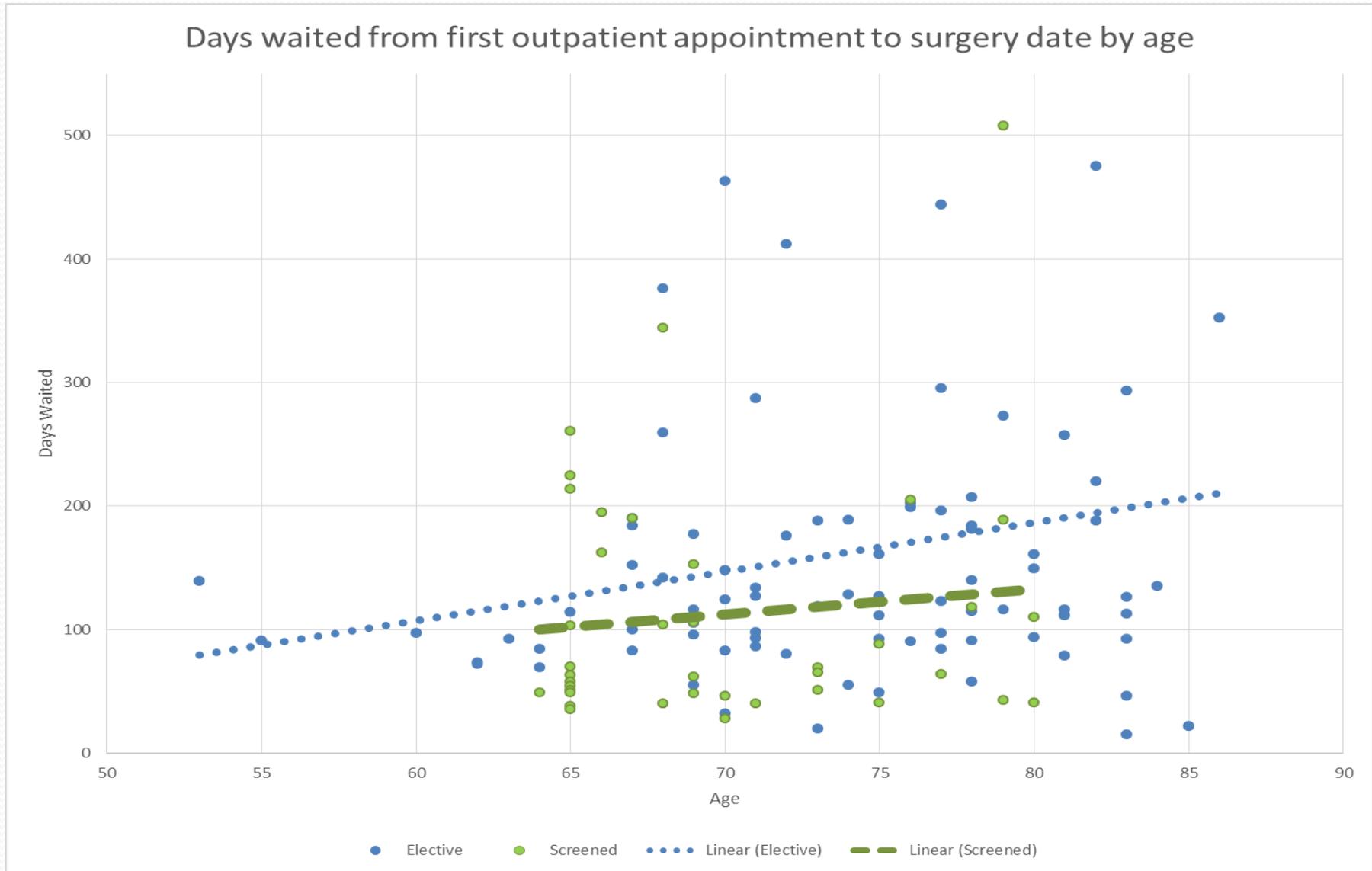
	EVAR	FEVAR	Open repair
<b>All patients</b>	<b>59%</b>	<b>7%</b>	<b>34%</b>
Age at admission <64	46%	8%	46%
Age at admission 65-74	47%	5%	48%
Age at admission 75-84	74%	7%	19%
Age at admission 85<	75%	25%	0%

# However...



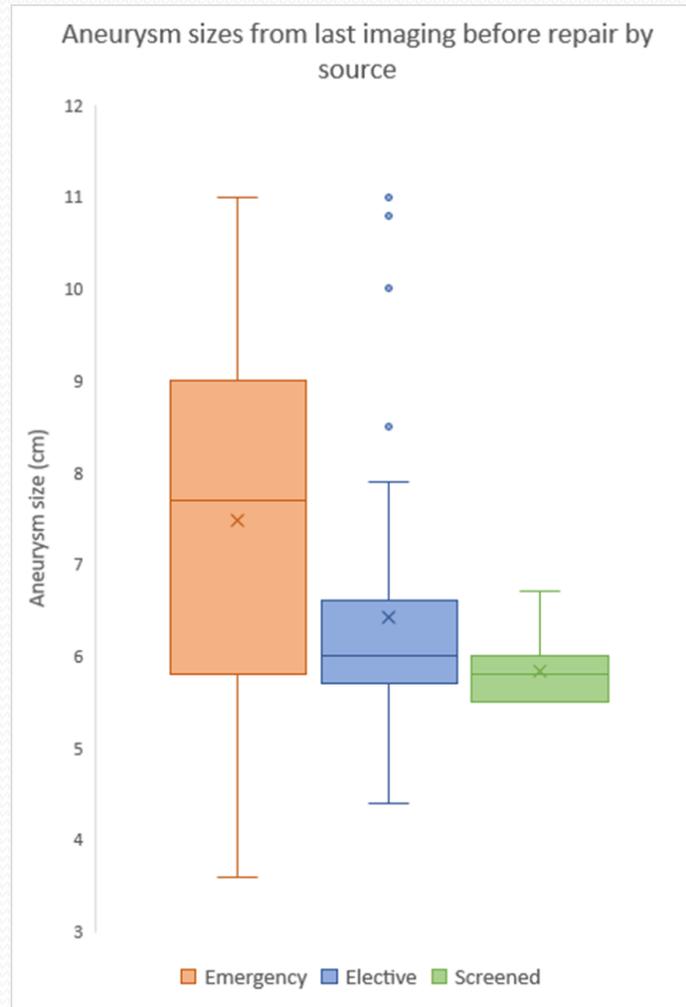
**Whether EVAR or open repair screened are quicker (only one screened FEVAR)**

# All AAA operation 2017/18 by age (excl. emergency)



Are larger aneurysms treated quicker?

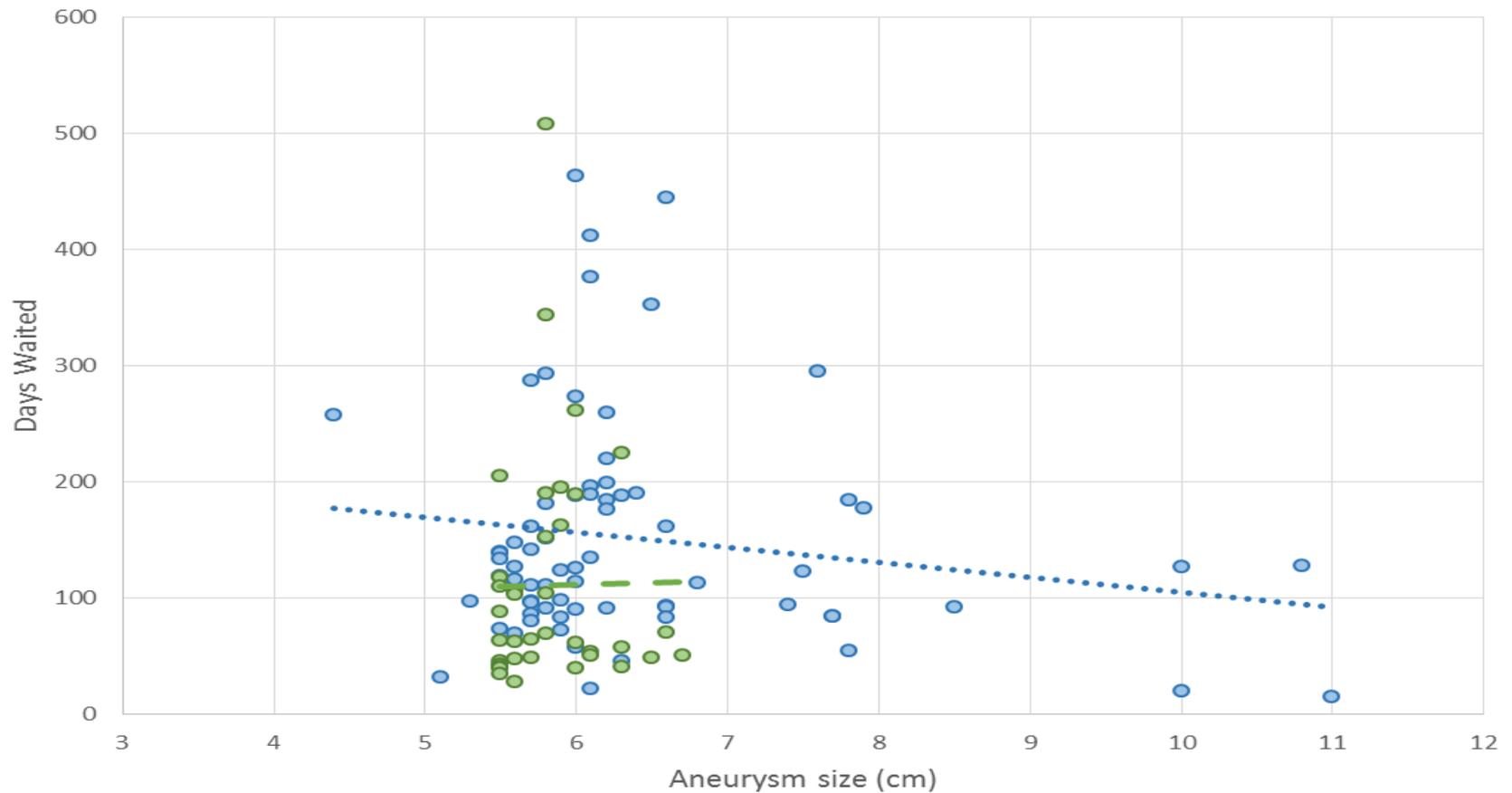
# Size of operated AAA (incomplete data set)



Emergency n19/37  
Elective n72/86  
Screened n39/39

# Work up time by size

Days waited from first outpatient appointment to surgery date by aneurysm size on last imaging



● Elective ● Screened ..... Linear (Elective) — Linear (Screened)

# How to close the gap?

- Patients in local surveillance now offered a nurse assessment appointment (prehab)
- Patients in local surveillance referred back to initial consultant via the VNS's and seen within two weeks when reach 5.5cm
- CTA and MPS requests chased via MDT coordinators
- Second MDT coordinator in post
- Board for both screened and non screened AAA

# AAA work up monitoring board



- 
- Closer monitoring of ALL AAA's in work up
  - Database of all AAA's in workup accessible to VNS's and MDT coordinators



Any questions?