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## **A survey of current policy regarding the recognition and management of Acute Aortic Syndrome in Great Britain.**

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## **A survey of current policy regarding the recognition and management of Acute Aortic Syndrome in Great Britain.**

Acute Aortic Syndrome (AAS) is a life-threatening condition constituting Acute Aortic Dissection (AAD), intramural haematoma and penetrating aortic ulcer [1.2]. The diagnosis of AAS is plagued by uncertainty [3], up to 38% of cases are missed at first Emergency Department (ED) presentation, and up to 25% are diagnosed 24 hours after ED presentation [4]. The Aortic Dissection Detection Risk Score (ADD-RS) [5] and the Canadian Clinical Practice Guideline (CCPG) [4] are clinical decision tools available to aid progression to the definitive investigation, Computed Tomography Angiography of the aorta (CTA).

A recent UK parliamentary debate on AAS [6] discussed the importance of ensuring patient pathways are in place in all hospitals and eliminating regional variations in AAS care. To establish a baseline, we designed and distributed a survey to all acute NHS trusts and health boards across Great Britain (where TADCT is a registered charity) to qualify current policy regarding recognition and management of AAS.

On 14<sup>th</sup> April 2022, we submitted a Freedom of Information (Fol) request via email to 143 NHS trusts in England, Scotland, and Wales that provide ED services. This request asked whether each trust had a policy for (1) ED patients with chest pain or suspected heart related conditions, (2) for managing suspected AAS, (3) for managing AAS once diagnosed and (4) what processes ensure that staff are made aware and reminded of this policy [Supplementary table 1]. Non-responders were followed up between 18<sup>th</sup> and 30<sup>th</sup> May 2022 with a further email. Responses and supporting material were collated into a Microsoft Excel spreadsheet.

82% of surveyed trusts responded (n=117). Response rate was 100% from Scotland (14 trusts), 84% from England (99 trusts) and 57% from Wales (4 trusts) [Table 1]. Five responders were excluded as they did not provide ED services, and one trust had merged with another. Therefore 111 trusts were included in the analysis [Figure 1]. A large majority of trusts (n=103, 93%) had a policy in place for responding to patients presenting with chest pain; almost all of these (n=102, 99%) were local guidelines, only one trust uses European Society of Cardiology (ESC) recommendations. Fewer

trusts had policies in place supporting diagnosis (n=69, 62%) and management (n=61, 55%) of AAS. Most of these were local policies (n=58; 84%), with a small number using ESC (n=5, 7%) and Royal College of Emergency Medicine (RCEM) (n=5, 7%) guidelines. Just under half of trusts provided dedicated teaching on AAS in the ED, largely in the form of departmental induction and during routine teaching sessions.

Whereas most trusts in the UK have established policy for managing patients presenting with chest pain, a much smaller percentage have specific guidelines pertaining to the recognition of AAS. Of concern is that only around half of trusts provide dedicated teaching about AAS in the ED. A limitation of the study is that not all acute trusts responded, so we do not have a complete picture. Not all trusts shared specific training materials with us which made it difficult to discern how EDs are currently approaching education around AAS. Some local guidelines, whilst not using existing guidelines in their entirety, may have been based on them suggesting more local guideline uniformity than suggested in the summary results.

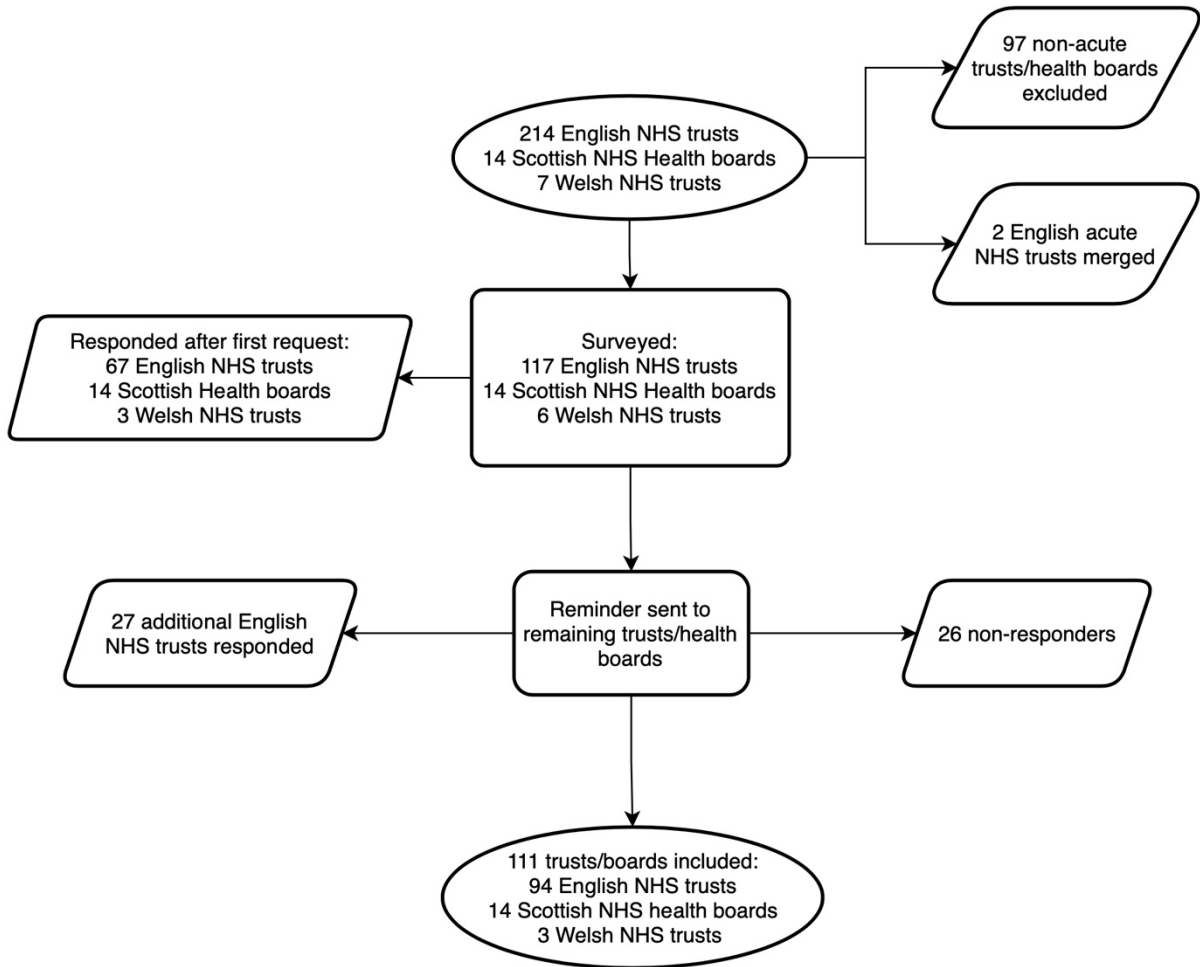
This survey shows that a significant number of acute trusts and health boards in Great Britain do not have written policies supporting the diagnosis and management of AAS, and specific teaching on AAS is not provided in most EDs. This supports the need for further development of national guidance to ensure this important diagnosis is recognised and managed in a timely manner.

### **Figure and Table legends**

**Figure 1:** Flowchart demonstrating inclusion of trusts in the survey.

**Table 1:** Current practice data extracted from FoI request responses from acute NHS trusts in England, Scotland, and Wales that provide ED services.

Figure 1:



**Table 1:**

Question	TOTAL	England	Scotland	Wales
<b>Overall Response Rate</b>	<b>111/137 (81%)</b>	<b>94/117 (80%)</b>	<b>14/14 (100%)</b>	<b>3/6 (50%)</b>
<b>1. Chest pain policy</b>	<b>103 (93%)</b>	91 (97%)	9 (64%)	3 (100%)
Use local policy	102 (99%)	90 (99%)	9 (100%)	3 (100%)
Use ESC chest pain guidelines	1 (1%)	1 (1%)	0 (0%)	0 (0%)
Does your chest pain policy mention AAS?	34 (33%)	31 (34%)	2 (22%)	1 (33%)
<b>2. Suspected AAS diagnosis policy</b>	<b>69 (62%)</b>	59 63%	7 50%	3 100%
Use local policy	58 (84%)	51 (86%)	6 (86%)	1 (33%)
Use RCEM policy	5 (7%)	4 (7%)	0 (0%)	1 (33%)
Use ESC AAS guidelines	5 (7%)	4 (7%)	1 (14%)	0 (0%)
Use other external policy	1 (1%)	0 (0%)	0 (0%)	1 (33%)
<b>3. AAS management policy</b>	<b>61 (55%)</b>	53 (56%)	7 (50%)	1 (33%)
Use local policy	56 (92%)	49 (92%)	6 (86%)	1 (100%)
Use ESC AAS guidelines	5 (8%)	4 (8%)	1 (14%)	0 (0%)
<b>4. Specific teaching on AAS provided in ED</b>	<b>53 (48%)</b>	50 (53%)	1 (7%)	2 67%

ESC = European Society of Cardiology; RCEM=Royal College of Emergency Medicine; AAS= Acute Aortic Syndrome; ED = Emergency Department

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