

# Service specification in aortic centres—UK Aortic Society survey

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Aortic diseases are a growing concern<sup>1</sup>. In the UK, deaths registered as aortic aneurysm and dissection account for 3.2 and 7.5 per 100 000 inhabitants respectively, with half of diagnosed patients dying before reaching a hospital. Currently, in the UK, aortic surgeries are performed in cardiothoracic surgical units that treat patients within their designated region without interacting with other centres. The recent National Health System (NHS) launch of the 'Acute Aortic Dissection toolkit' provided an assessment framework and recommendations, describing key principles and actions to improve the care for emergency aortic syndromes<sup>2</sup>. This study aimed to understand the current state of aortic disease treatment in the UK and its compliance with best practices.

A survey commissioned by the executive team of the UK-Aortic Society (<https://uk-as.org>) was sent to all aortic surgeons in the UK, obtaining a response from 65% of the aortic centres. The survey assessed service provision, surgeon qualifications, and adherence to national guidelines and the NHS 'Acute Aortic Dissection toolkit' (Fig. 1).

Most centres perform a mix of elective and emergency aortic surgeries, with an average ratio between elective cases and acute aortic syndromes of 34% ( $\pm 21\%$ ). Hybrid endovascular techniques are widely available (89% of the centres), but some complex procedures (Ross procedure, open treatment of thoraco-abdominal diseases) are less common (58% and 47% of the centres respectively). The ratio of urgent *versus* elective

cases in centres with a larger volume (more than 80 aortic cases per year) was significantly lower (23%) when compared to smaller centres. Dedicated aortic surgeons are present in most centres (20 of 23 respondents), but co-located hybrid theatres (10 of 23) and on-call rotas are less frequent (13 of 23). Aortic multidisciplinary teams involving various specialists are present in most centres (18 of 23). Standardized protocols for imaging, transfer and follow-up care are not universally available (79%, 58% and 63% respectively). Only a third of centres participate in regional rotas for managing acute aortic syndromes. Educational programmes for aortic diseases are limited (37% of centres).

There is no consensus on the definition of an aortic surgeon (48% of the respondents selected a figure between 10 and 20 and 52% a figure above 30 aortic operations performed per year). According to the responses provided, a 'dedicated/specialized' aortic surgeon should be able to perform aortic root replacement for 100% of the respondents, valve-sparing aortic root replacement for 83% and hybrid endovascular approaches for 61%. All participants agree on the volume–outcome relationship in aortic surgery and support the creation of a national aortic surgery database.

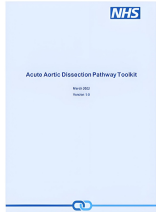
The survey revealed significant variations in how aortic services are provided across the UK. Whereas some centres offer advanced treatments, others lack crucial resources like dedicated rotas and standardized protocols. The findings



# UK AORTIC SOCIETY

## SERVICE SPECIFICATION SURVEY

Review of practice and services offered in UK Aortic Centres



Focused on comparing the current system with the Acute Aortic Dissection toolkit



**19 Units involved**  
Out of 30 units approached



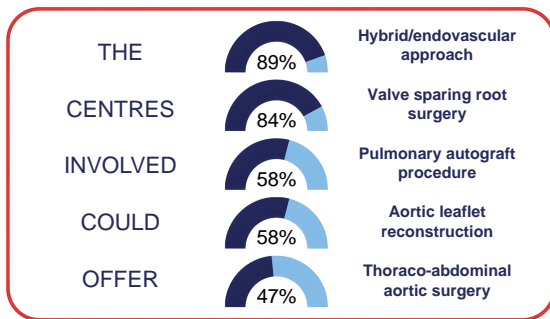
**23 surgeons**  
Exclusively consultants



**25 questions**  
Distributed digitally



**Run for 7 months**  
From April 2022 to November 2022



Median number of 3 surgeons in the aortic rotas (i.q.r. 0–5).



3 centres from our survey part of regional rota

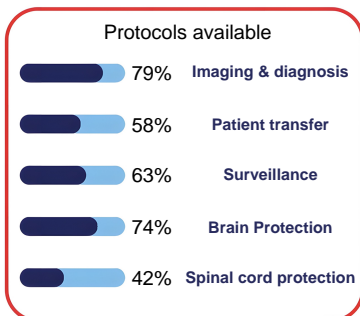
Dedicated aortic surgeon



Specific On-Call Aortic Rota



Hybrid Theatre



**89%**

provide care for patients affected by aortic diseases with a congenital aetiology

**37%**

run regional education programmes for acute aortic syndromes

Visual abstract of relevant outcomes derived from the survey.

Fig. 1 Visual abstract of relevant outcomes derived from the survey

highlight the need for improvement in several areas. Concentrating complex aortic surgeries in high-volume centres with dedicated expertise could improve outcomes, as well known from previous publications<sup>3</sup>. Also, establishing regional rotas and implementing standardized protocols could ensure faster diagnosis, safer transfers and better long-term care for patients, whereas investing in regional educational programs for aortic diseases could improve awareness and early diagnosis. A dedicated database for aortic surgeries would allow for outcome tracking and continuous improvement.

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### Disclosure

The authors declare no conflict of interest.

### Supplementary material

Supplementary material is available at BJS online.

### Data availability

The data collected for the manuscript will be made available upon pertinent request to the corresponding author.

### Author contributions

Giovanni Mariscalco (Conceptualization, Data curation, Formal analysis, Investigation, Methodology, Project administration, Supervision, Visualization, Writing—original draft, Writing—review & editing), Riccardo Giuseppe Abbasciano (Conceptualization, Data curation, Formal analysis, Investigation, Methodology, Project administration, Visualization, Writing—original draft, Writing—review & editing), Karen Booth (Conceptualization, Writing—original draft, Writing—review & editing), Sunil Bhudia (Conceptualization, Writing—original draft, Writing—review & editing), Stefano Forlani (Conceptualization, Writing—original draft, Writing—review & editing), Michael Sabetai (Conceptualization, Writing—original draft, Writing—review & editing), Amit Modi (Conceptualization, Writing—original draft, Writing—review & editing), Graham Cooper (Conceptualization, Writing—original draft, Writing—review & editing), and Manoj Kuduvali (Conceptualization, Writing—original draft, Writing—review & editing)

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