

‘Valve for Life’: tackling the deficit in transcatheter treatment of heart valve disease in the UK

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Objectives

- The valve for Life initiative was launched by the European Association of Percutaneous Cardiovascular Interventions in 2015, with the objective of improving access to transcatheter valve interventions across Europe. The number of transcatheter aortic valve interventions (TAVI) procedures carried out in the UK is significantly lower than that in almost all other European countries. Consequently, waiting times for TAVI are long and mortality among those awaiting intervention is significant
- The objectives of this review are (1) to review these issues, (2) to report new data on access to TAVI in the UK, and (3) to present proposals of the UK Valve for Life team to address these problems

Study design

Analytical review

Methods

The initiative is spearheaded by a team of eight clinicians from different regions of the UK, working under the umbrella of the BCIS, who will:

- Lobby NHS England and the Department of Health and Social Care to promote the increasing provision for the management of valvular heart disease
- Interact directly with Trusts, through designated ‘local champions’
- Increase awareness among clinicians and the public through educational and media activities

Key findings

In 2019, 78 TAVI procedures per million population (pmp) were undertaken, compared to a European average of 141 pmp (and as high as 292 pmp in Germany). **National underprovision** explanatory factors included:

- The number of TAVI centres in the UK is small – 0.53 centres pmp, which is one-third the average in Western Europe
- Capacity in the centres is limited – inadequate cardiac catheterisation laboratory capacity and bed numbers being the most frequently-cited factors
- Access to cardiac computerised tomography (CT) is a problem
- Limitations on TAVI numbers are imposed by commissioners

Inequality of access

- Analysis showed an 11-fold variation in TAVI numbers pmp, ranging from 19.4 to 213.2

The impact of underprovision:

- Analysis of **waiting times** for TAVI in the NHS in 2019 showed that, among 23 centres from which data were obtained, the median waiting time from referral to TAVI was over 20 weeks. Geographical inequity in waiting times ranged from 9 to 35 weeks
- In this survey of 23 centres, there were 299 **deaths** among patients waiting for TAVI in 2019 – extended to all 35 centres, this would represent over 500 avoidable deaths
- The median **hospital stay** in the analysis of 23 UK TAVI centres was 33 days among in-patients, compared with 3 days for those treated from home: long waits for TAVI result in avoidable consumption of hospital beds

Proposals:

- Prioritise optimisation and maximisation of capacity in existing surgical centres
- Focus on delivery of the fast-track pathway and expansion of TAVI numbers in the UK by supporting growth in existing surgical centres, with emphasis in those areas where access to TAVI is most constrained
- If these two tactics prove ineffectual, then consider expansion into new centres, under which circumstances Valve for Life would plan to work with the British Cardiovascular Intervention Society to define the service specification for a TAVI centre without on-site cardiac surgery

Conclusions

- The Valve for Life programme offers a hugely valuable opportunity to address the fact that the UK lags behind the majority of European countries in the provision of TAVI treatment
- The proposed measures have the potential to improve the care given to patients across the NHS who suffer from aortic stenosis