

## GLOBALSTAR update

A. Guérout on behalf of BSET

### *Introduction*

BSET has supported new research evaluating long-term outcomes (>10 years) for FEVAR from GLOBALSTAR registry data (Global Collaborators on Advanced Stent-Graft Techniques for Aneurysm Repair).(1) The registry originally contained 881 records from 15 collaborating centres. The aim of the present study is to complete long-term follow-up for GLOBALSTAR by collecting new data and bolstering study numbers through the contribution of new cases from participating centres. The ethical approval for GLOBALSTAR was renewed by the current study team on 23/11/2023 by Haydock REC. The team is led by Chief Investigator for GLOBALSTAR, Mr Simon Neequaye (Liverpool), and co-investigator Mr Aurélien Guérout (St George's), with support from Mr Maciej Juszcak (Birmingham) and Prof Peter Holt (St George's).

### *Data collection*

The GLOBALSTAR registry now contains n= 1067 records for custom-made FEVAR. The table below summarises collaborating centres' contributions to date. The aim is to complete data collection by 01/01/2025, AG will be travelling between collaborating centres this autumn to support data collection. New collaborations will be accepted up to 21/10/2024.

<b>Centre</b>	<b>N</b>	<b>Comment</b>
Liverpool	174	Complete data
St Thomas'/ King's	115	Complete data
St Mary's	186	Complete data
RFH (prev. UCLH)	28	Complete data
Bristol (prev. Bath)	51	Data collection underway
St George's	225	Complete data
Birmingham	288	Data collection underway

<b>TOTAL</b>	<b>1067</b>	Mortality data complete
Manchester	30 historic records	Collaboration pledged
Leicester	26 historic records	Collaboration pledged
Cambridge	13 historic records	Collaboration pledged
Brighton	2 historic records	Collaboration pledged
Basildon	New collaborator	Data collection underway
Southampton	New collaborator	Collaboration pledged
Newcastle	New collaborator	Data collection underway
Norfolk and Norwich	New collaborator	Data collection underway

### *Preliminary results*

Data maturity for survival analyses met 10 years, with 116 of n= 1067 individuals uncensored at 10 years (10% Pocock maturity threshold). Survival at 3, 5 and 10 years was estimated as 79.9% [77.5-82.4%, 95% CI], 64.2% [61.1-67.3%] and 34.0% [30.3-38.1%]. These estimates are consistent with a recent meta-analysis for long-term outcomes of FEVAR.(2) Sub-group analysis for octogenarians demonstrates that this group, despite concerns over frailty, have a median survival beyond 5 years post FEVAR.

For freedom from re-intervention analysis (FFR), data maturity reached 8 years with 91 of n= 741 individuals uncensored at 8 years (10% Pocock maturity threshold). FFR at 3, 5 and 8 years was estimated as 75.7% [72.4-79.1%], 70.0% [66.3-73.8%] and 64.6% [60.1-69.3%]. This is also consistent with estimates reported in the literature.(2)

### *Planned output*

With the completion of data collection, the GLOBALSTAR registry will contain over a decade of data for >1000 FEVAR patients to represent the UK endovascular community's FEVAR experience. Planned outputs will include: time-to-event analyses for all collected outcomes for the whole GLOBALSTAR cohort; outcomes of FEVAR for octogenarians (sub-categorised in multiple age strata); outcomes of FEVAR for females; evaluation of national FEVAR surveillance programmes; and examination of aneurysm sac behaviour after FEVAR.

## *Conclusion*

The current GLOBALSTAR study is progressing well, with ethics renewed and the 1000<sup>th</sup> inclusion milestone met for data collection. There is still further work to complete in this regard, especially in terms of FFR, endoleak incidence and sac behaviour during follow-up. Preliminary results are promising and there are already some important findings come out of these initial analyses. **There is still time to collaborate**, so if your centre is interested please get in touch with Aurélien: [aurelien.gueroult1@nhs.net](mailto:aurelien.gueroult1@nhs.net).

## **References**

1. Vallabhaneni SR. Early results of fenestrated endovascular repair of juxtarenal aortic aneurysms in the United Kingdom. *Circulation*. 2012;125(22):2707–15.
2. Guérout AM, Bashir A, Azhar B, Budge J, Roy I, Loftus I, et al. Long Term Outcomes and Durability of Fenestrated Endovascular Aneurysm Repair: A Meta-analysis of Time to Event Data. *European Journal of Vascular and Endovascular Surgery* [Internet]. 2023 Nov 2; Available from: <https://doi.org/10.1016/j.ejvs.2023.08.012>