

NCAP

NATIONAL CARDIAC AUDIT PROGRAMME

NICOR

Transcatheter Mitral and Tricuspid Valve (TMTV) Registry



2024 Summary Report

BCIS

Transcatheter Mitral & Tricuspid Valve (TMTV) - Report at a glance

2022/23 data unless otherwise stated.



The TMTV registry encompasses all transcatheter procedures relating to the mitral and tricuspid valve, including mitral transcatheter edge-to-edge repair (TEER)



21 centres have been commissioned to perform mitral TEER procedures



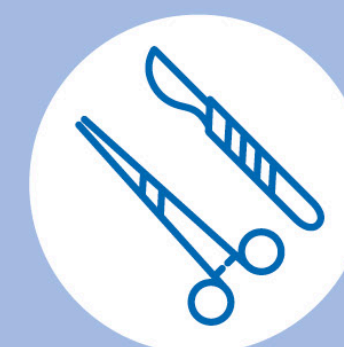
3 additional hospitals are performing mitral TEER procedures



434 TMTV procedures in total and **414** mitral TEER procedures specifically were identified by a survey as part of 2022/23 data collection



Only **54%** of centres entered data into the TMTV registry as part of the 2023 data collection



177 procedures were submitted for 2023



68% of submissions in 2023 related to mitral TEER procedures



90% of TMTV procedures in 2023 were elective and **10%** were urgent cases



315 mitral TEER procedures in 2023 were identified by a separate survey (also incomplete as not all hospitals responded), so current data entry is sub-optimal.



1. Hospital chief executives and clinical leads commissioned to perform TMTV procedures should fulfil their obligations to submit complete and accurate data to the TMTV registry.
2. Hospitals should adhere to the planned TMTV registry development timetable:
 - Phase 1 (July 2023-March 2024): all hospitals to be registered and entering data using the NCAP web-based front end
 - Phase 2 (April 2024-March 2025): updates in dataset to be completed and all hospitals to establish real time data entry and
 - Phase 3 (April 2025-April 2026): analytic plan fully implemented and regular reporting established

Introduction to the report



The Transcatheter Mitral & Tricuspid Valve (TMTV) registry was launched by the National Institute of Cardiovascular Outcomes Research (NICOR) in June 2023 and is part of the National Cardiac Audit Programme (NCAP). The primary responsibility of the TMTV audit is to report on the use of Mitral Transcatheter Edge-to-Edge Repair (TEER) procedures, which were commissioned by NHS England in 2019. An increasing number of hospitals are now undertaking TEER. The registry also captures other TMTV interventions to monitor the outcomes of these lower-volume procedures and technologies which are in the early stage of clinical adoption.

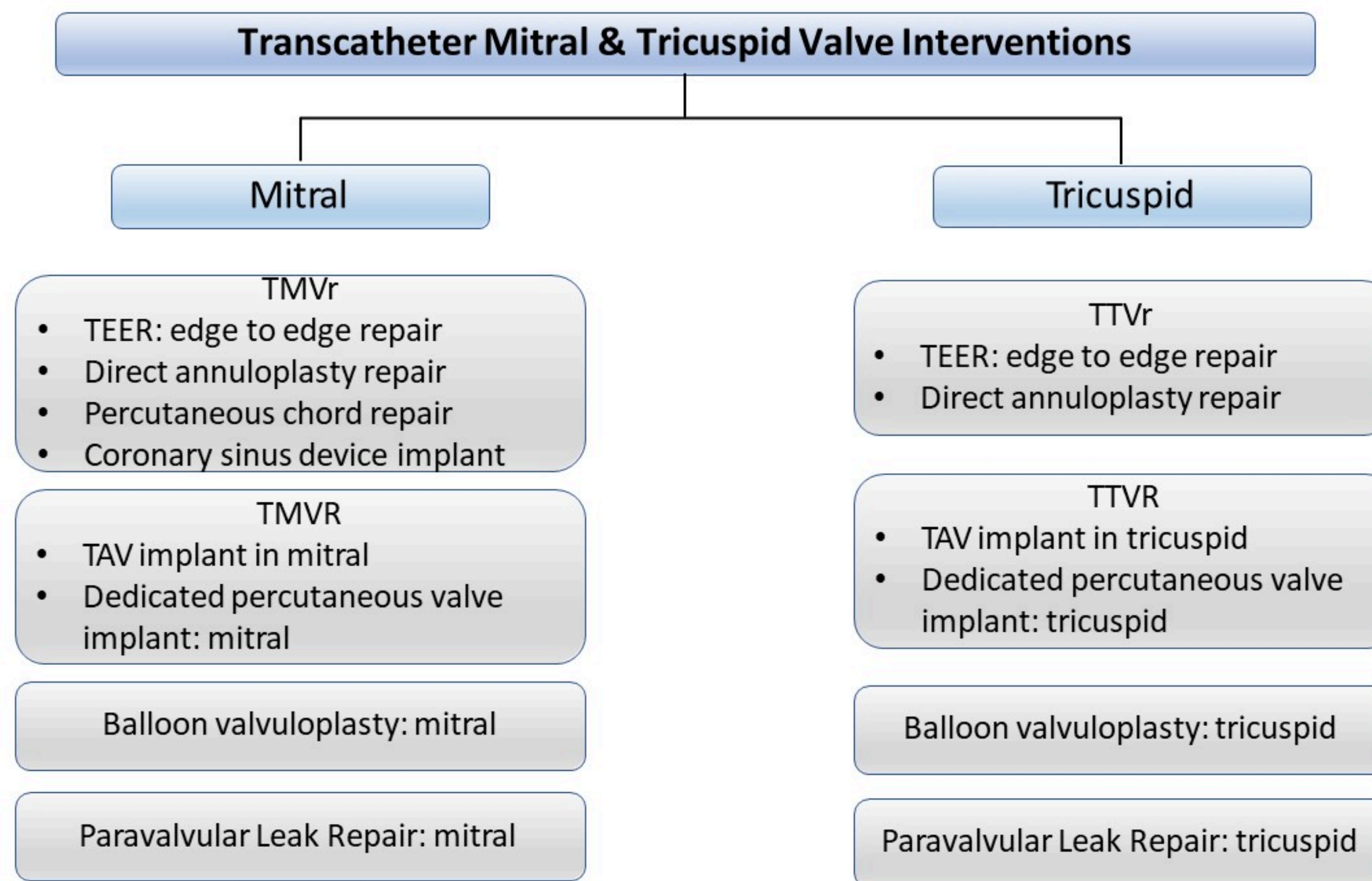
This is the first NCAP registry to adopt mandated and contemporaneous data entry using the NICOR online web-based platform. This represents a significant shift. Hospitals can continuously enter and validate their data submissions to ensure high-quality data. In turn, they can then use online NICOR tools to analyse their own activity and outcomes, including benchmarking themselves against other providers of TMTV services. The ambition is that hospital clinical and audit teams will closely engage with the TMTV registry to optimise its utility in driving improvements in patient experience and outcomes.

This report provides data from a survey summarising provision of mitral TEER procedures in 2022/23 and initial and limited information from the TMTV registry. A first round of data collection has been completed with hospitals asked to provide data on all their TMTV procedures undertaken in 2023. Not all hospitals completed submissions, so data are not comprehensive and conclusions cannot yet be drawn about the exact number of TMTV procedures nor their quality and outcomes. Separate to this, a survey of hospitals was undertaken to check the extent of data completeness within the registry. The results of that survey are reported for comparison.

We would like to thank all the clinical and audit teams at all the hospitals that have engaged so far with the new TMTV registry and for the work done in submitting their data. We hope that the other hospitals performing TMTV are now encouraged to play a full role in the development of the registry in line with the planned timetable:

- Phase 1 (July 2023-March 2024): all hospitals to be registered and entering data via the NCAP web-portal
- Phase 2 (April 2024-March 2025): updates in dataset to be completed and all hospitals to establish real time data entry and
- Phase 3 (April 2025-April 2026): analytic plan fully implemented and regular reporting established

Types of transcatheter mitral and tricuspid valve (TMTV) procedures



Key:

TMVr Transcatheter Mitral Valve repair

TMVR Transcatheter Mitral Valve Replacement

TAV Transcatheter Aortic Valve

TTVr Transcatheter Tricuspid Valve repair

TTVR Transcatheter Tricuspid Valve Replacement



2022/23 data from TMTV survey

- All procedures by type
- Mitral TEER procedures by hospital

2023 data from TMTV survey

- Hospitals submitting M-TEER data
- All procedures by type
- M-TEER procedures by hospital

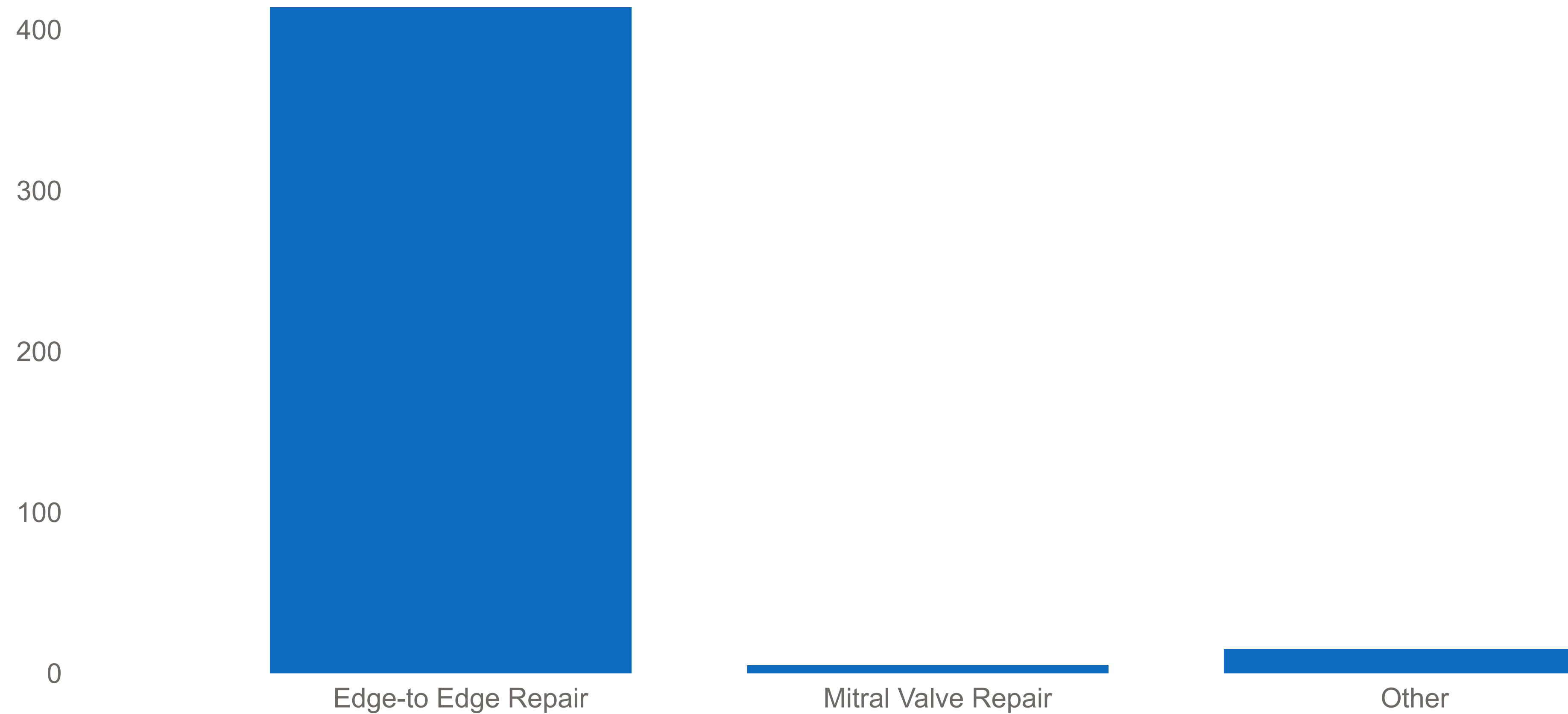
2023 data from TMTV registry

- Hospitals submitting data to the registry
- Hospitals by commissioning status
- All procedures: registry v survey submissions
- All procedures by hospital
- All procedures by urgency
- All procedures by type

A survey of 26 hospitals performing TMTV procedures in 2022/23 showed that 95% of procedures were mitral TEER



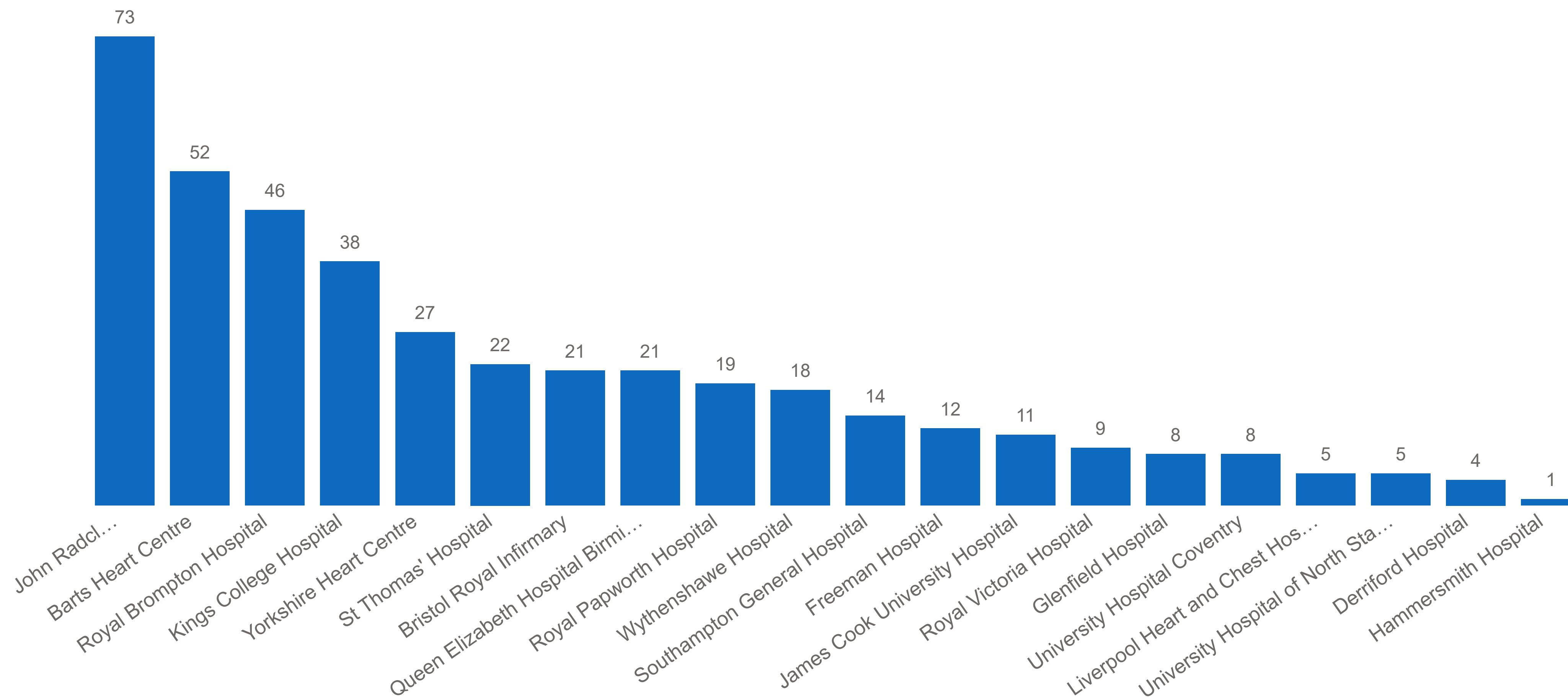
Procedures reported to TMTV survey by type (2022/23)



A survey of the hospitals performing mitral TEER procedures in 2022/23 comprised 19 NHS England commissioned units and 1 other



Mitral TEER procedures by hospital



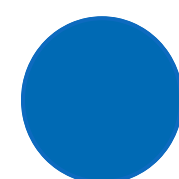
Thirteen of 24 NHS England hospitals submitted 2023 data to the TMTV registry



Location of hospitals submitting 2023 data to the TMTV registry

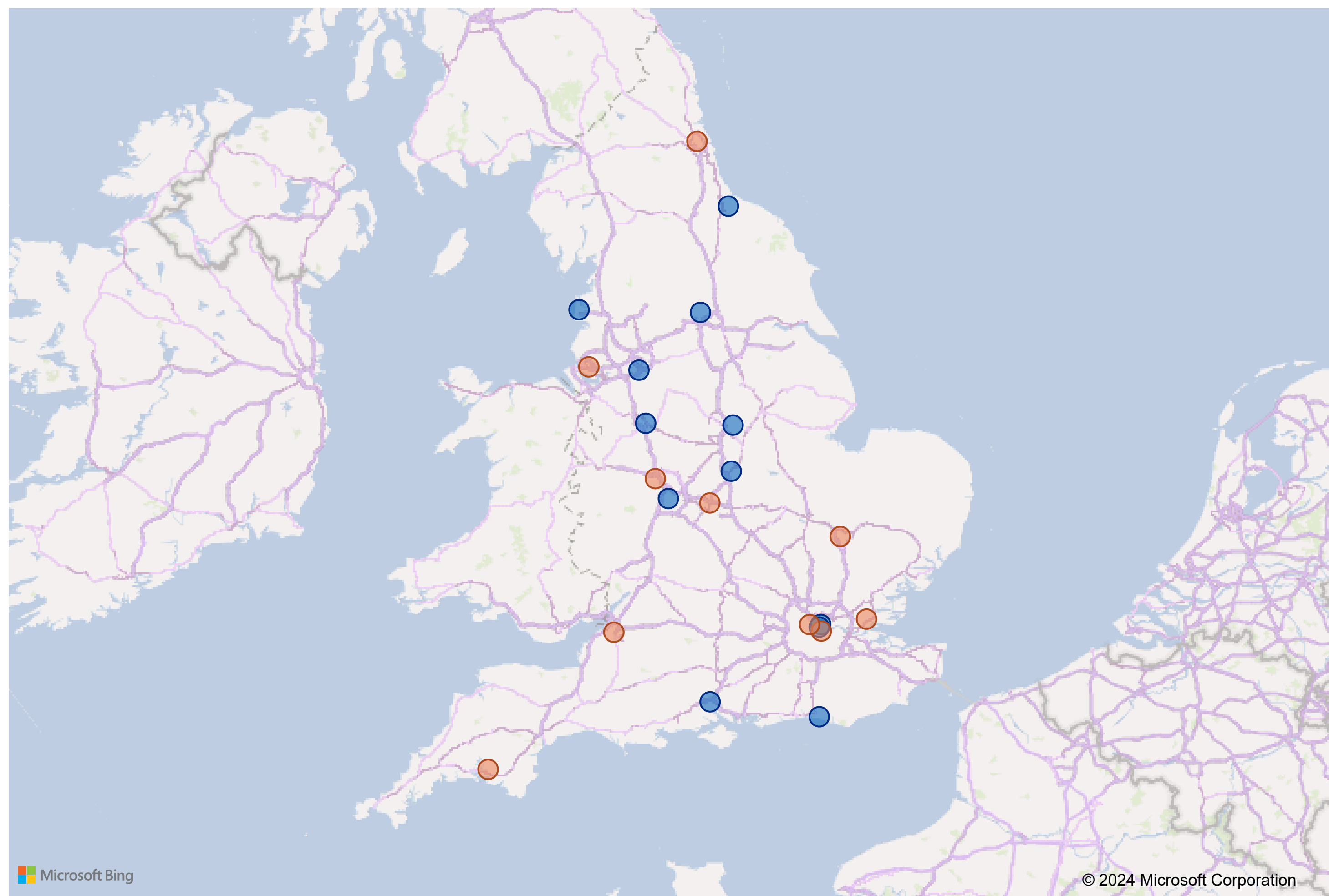
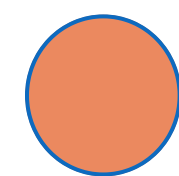
Hospitals that submitted
2023 TMTV data

13



NHS hospitals that did not
submit 2023 TMTV data

11

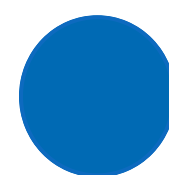


There are 21 NHS England-commissioned hospitals performing mitral valve transcatheter edge-to-edge repair (mitral TEER) procedures plus three others



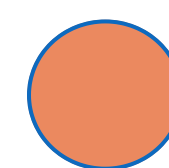
Location of hospitals performing TMTV procedures (2023)

Hospitals
commissioned by
NHS England to
perform mitral TEER
procedures

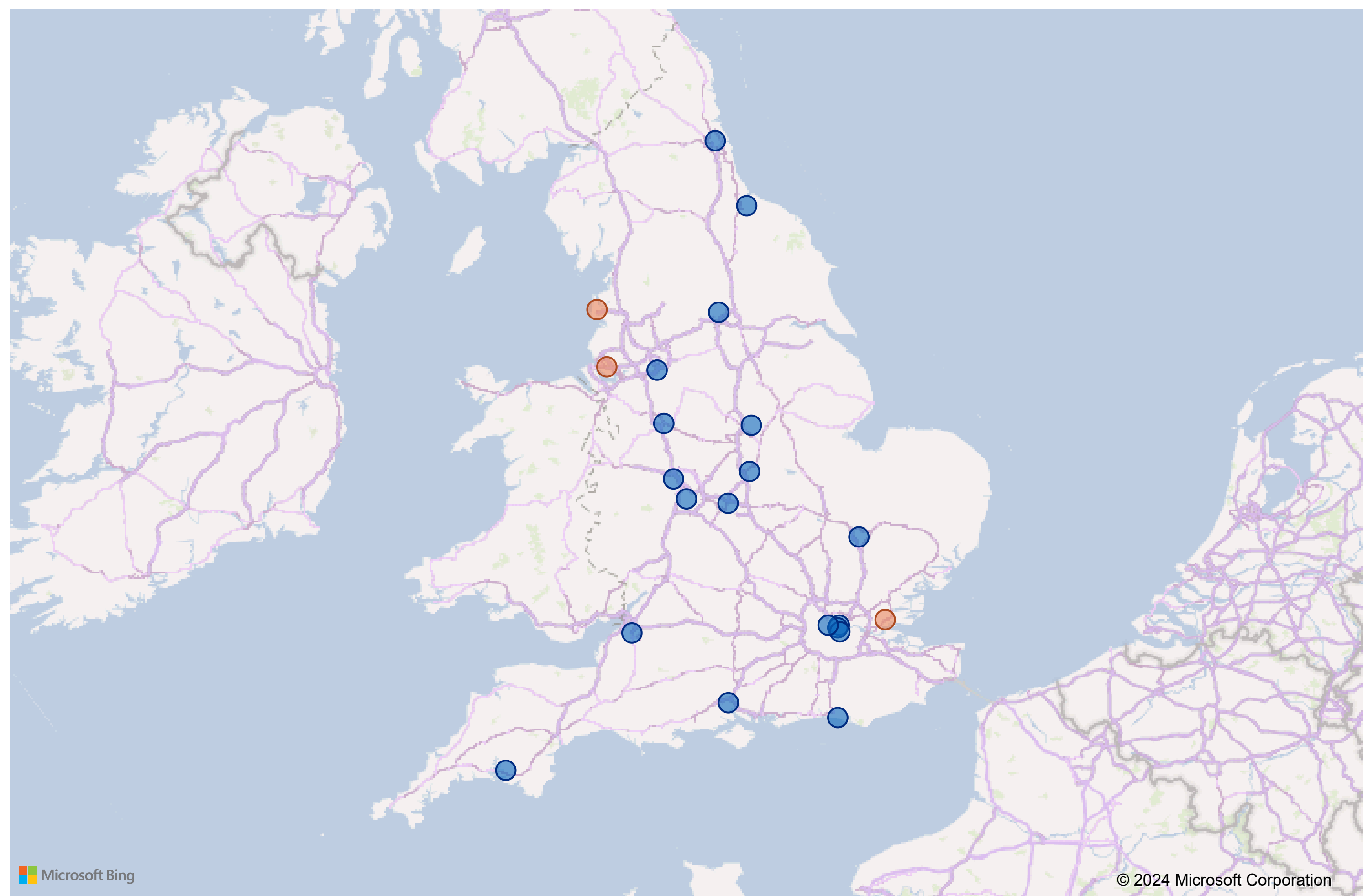


21

Hospitals performing
mitral TEER
procedures but not
commissioned by
NHS England



3



Microsoft Bing

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Hospitals submitted data to the registry on a total of 177 TMTV cases in 2023 but a separate (incomplete) survey identified 383 procedures being performed

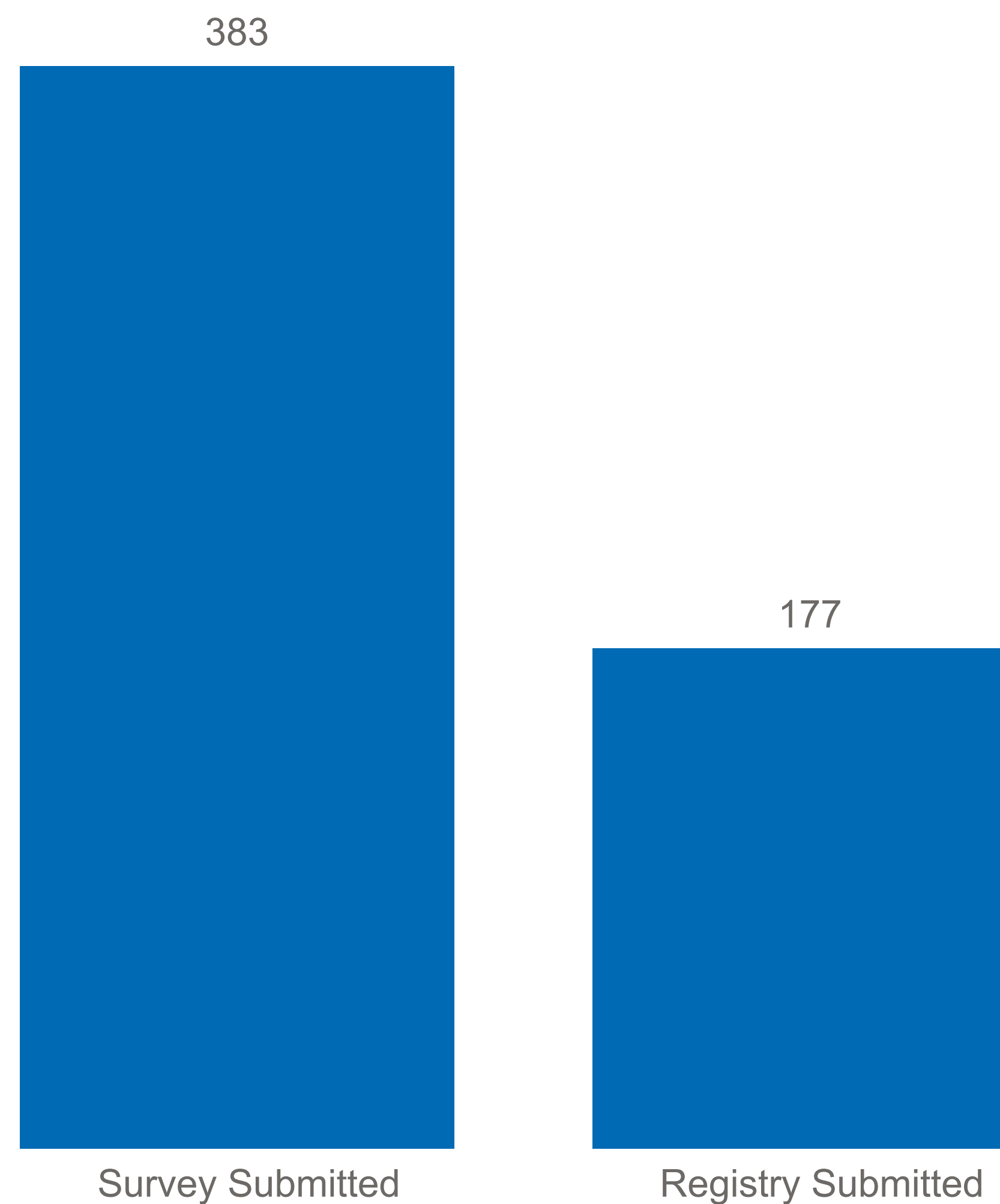


Data for a total of 177 cases in 2023 have been submitted to the TMTV registry by just over half the hospitals performing TMTV procedures.

Separate to this, a survey of hospitals was undertaken to check the extent of data completeness within the registry.

As of January 2024, the survey had a 50% response rate and identified a total of 383 TMTV procedures in 2023.

This confirms that the submissions to the TMTV registry fall considerably short of capturing all the TMTV procedures undertaken.



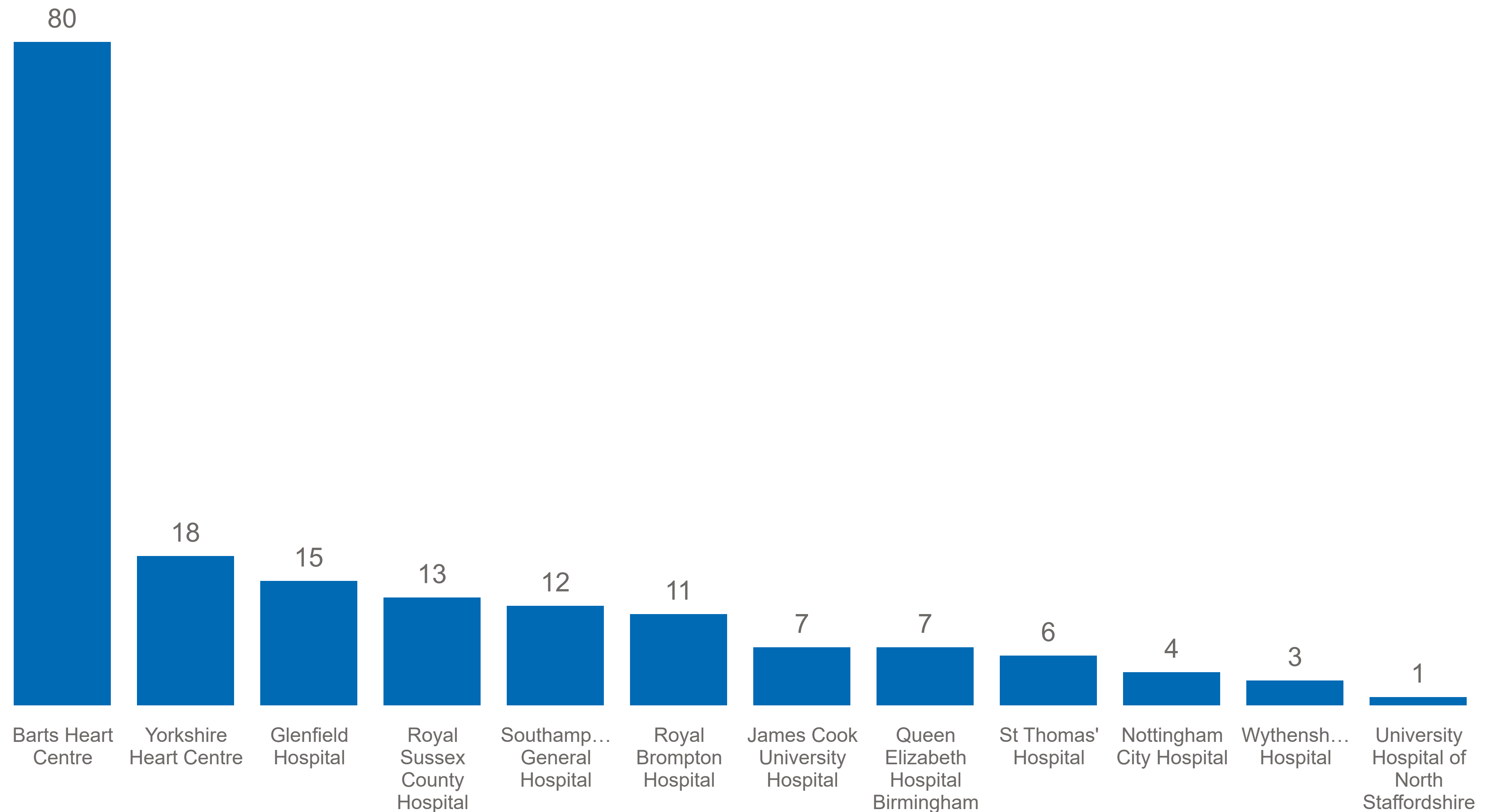
Submissions to the TMTV registry identified 177 TMTV procedures in 2023



TMTV procedures in NHS England-commissioned hospitals (2023)

The 177 procedures for 2023 were submitted to the TMTV registry by 12 hospitals that entered data.

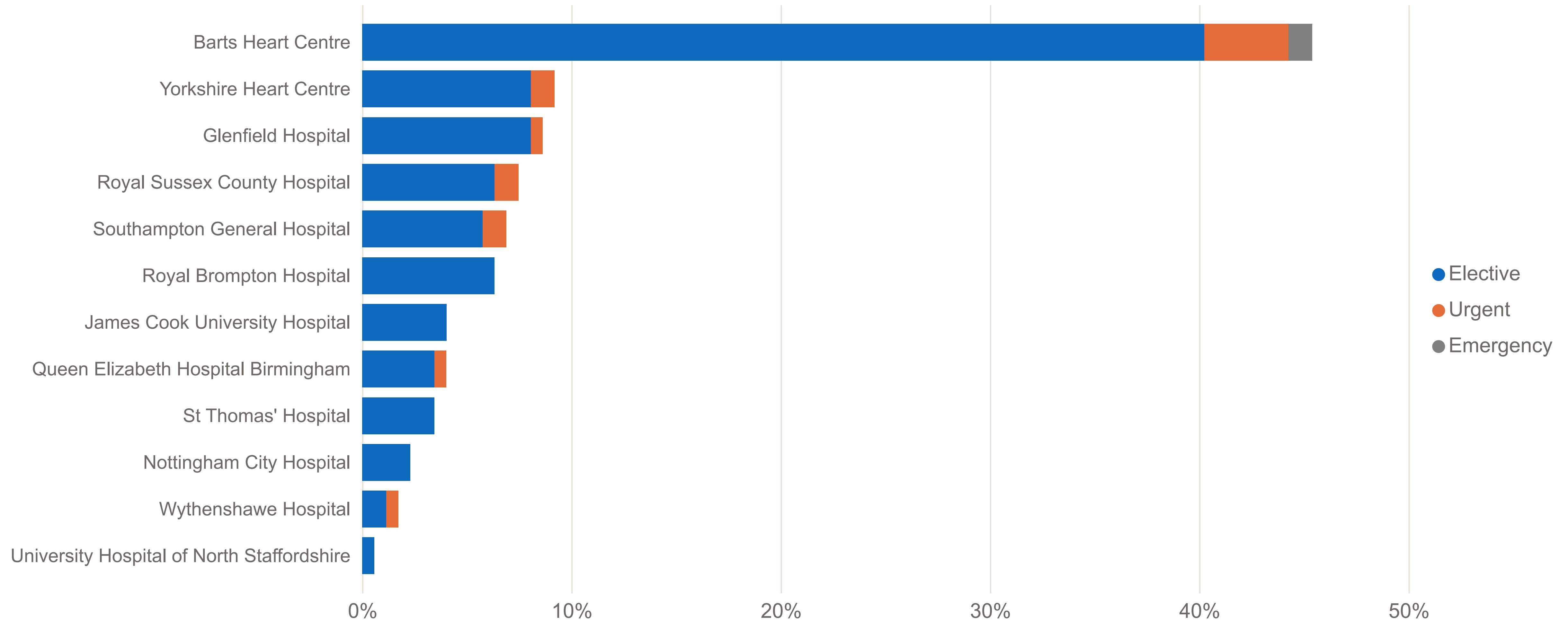
The first case entered was on 5th April 2023 by Barts Heart Centre.



In 2023, most TMTV procedures were elective but 10% were performed urgently, with two being emergency cases



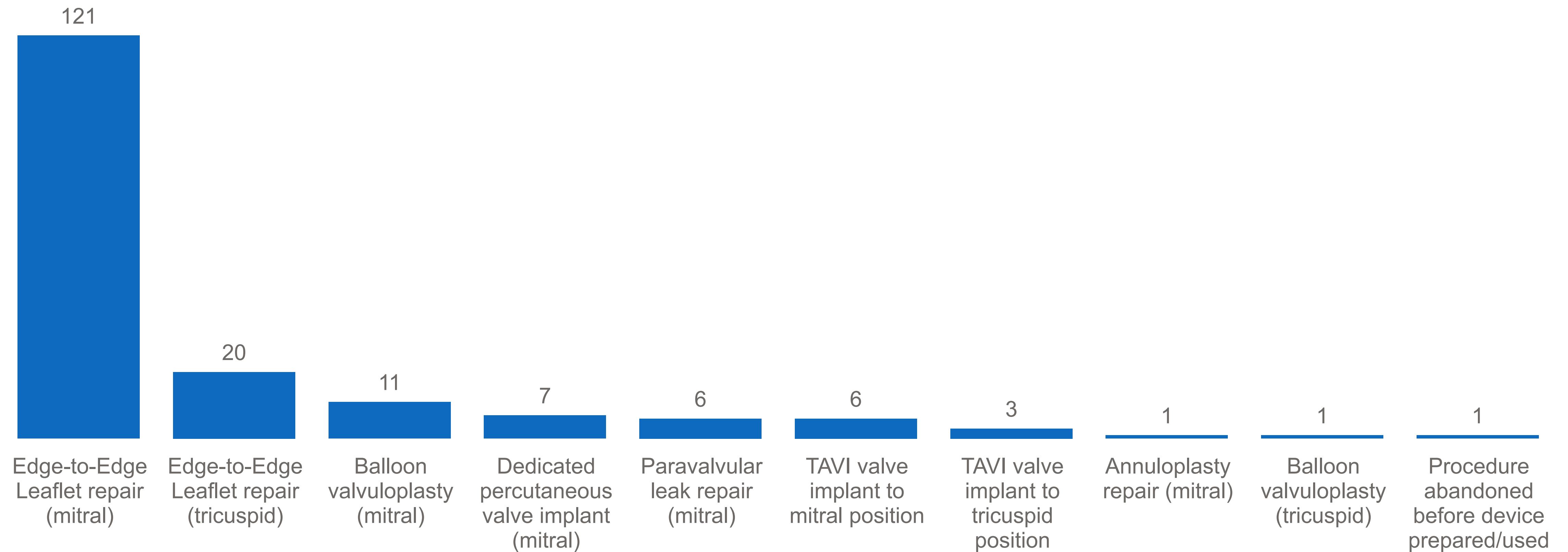
Urgency of TMTV procedures by hospital (2022/23)



The majority of TMTV procedures were mitral valve transcatheter edge-to-edge repairs (mitral TEER)



TMTV procedures by type (2023)





A snapshot of the 2023 TMTV registry data

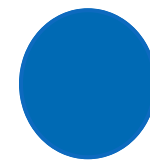
Twelve hospitals performing mitral valve edge-to-edge (mitral TEER) procedures in England during 2023 responded to a separate TMTV survey



Location of hospitals submitting 2023 M-TEER data to the TMTV survey

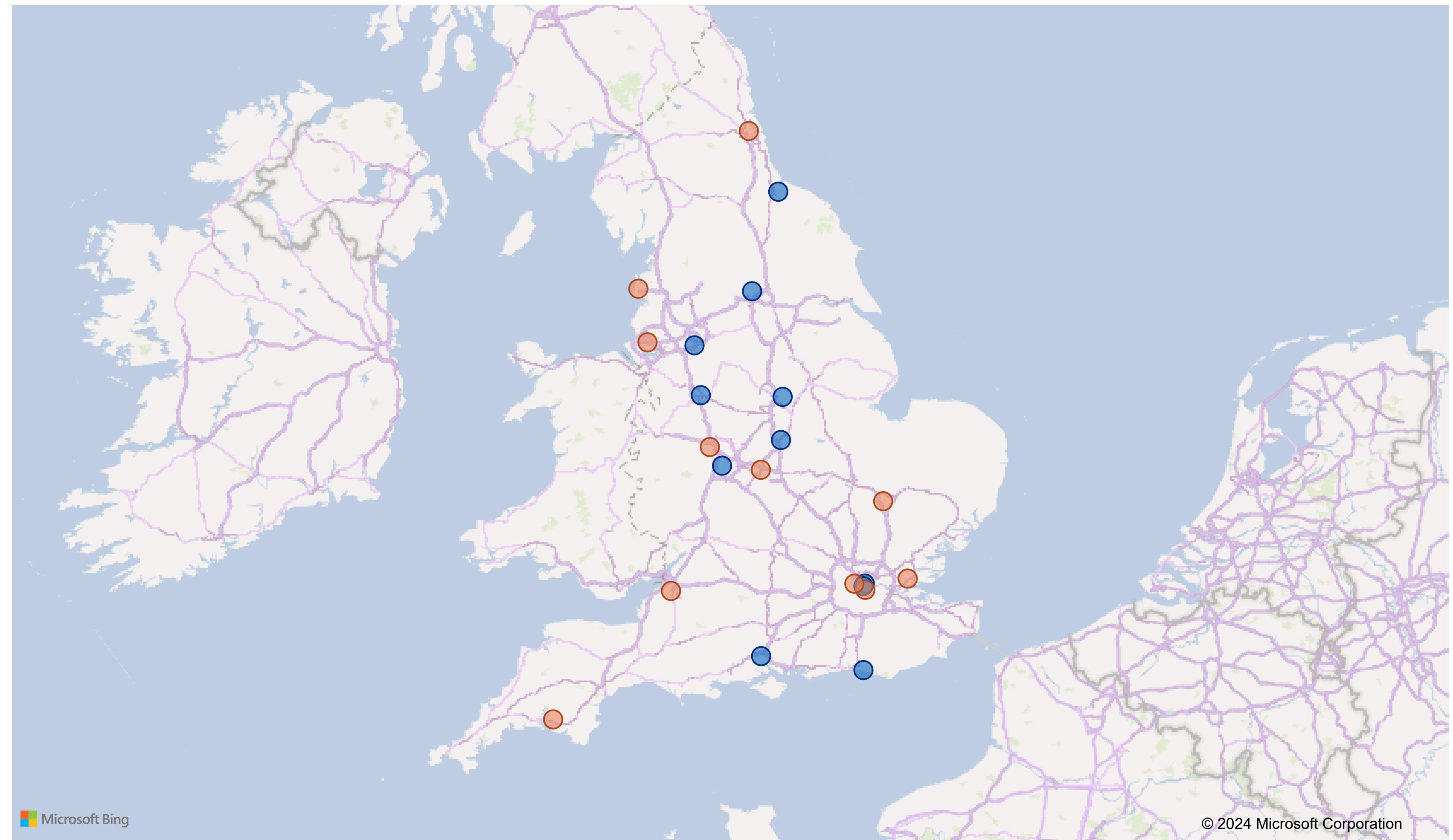
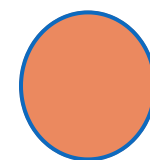
Hospitals that submitted mitral TEER data to the survey

12



Hospitals that did not submit mitral TEER data to the survey

12



A separate survey of hospitals performing TMTV procedures confirmed that most procedures in 2023 were mitral TEER cases



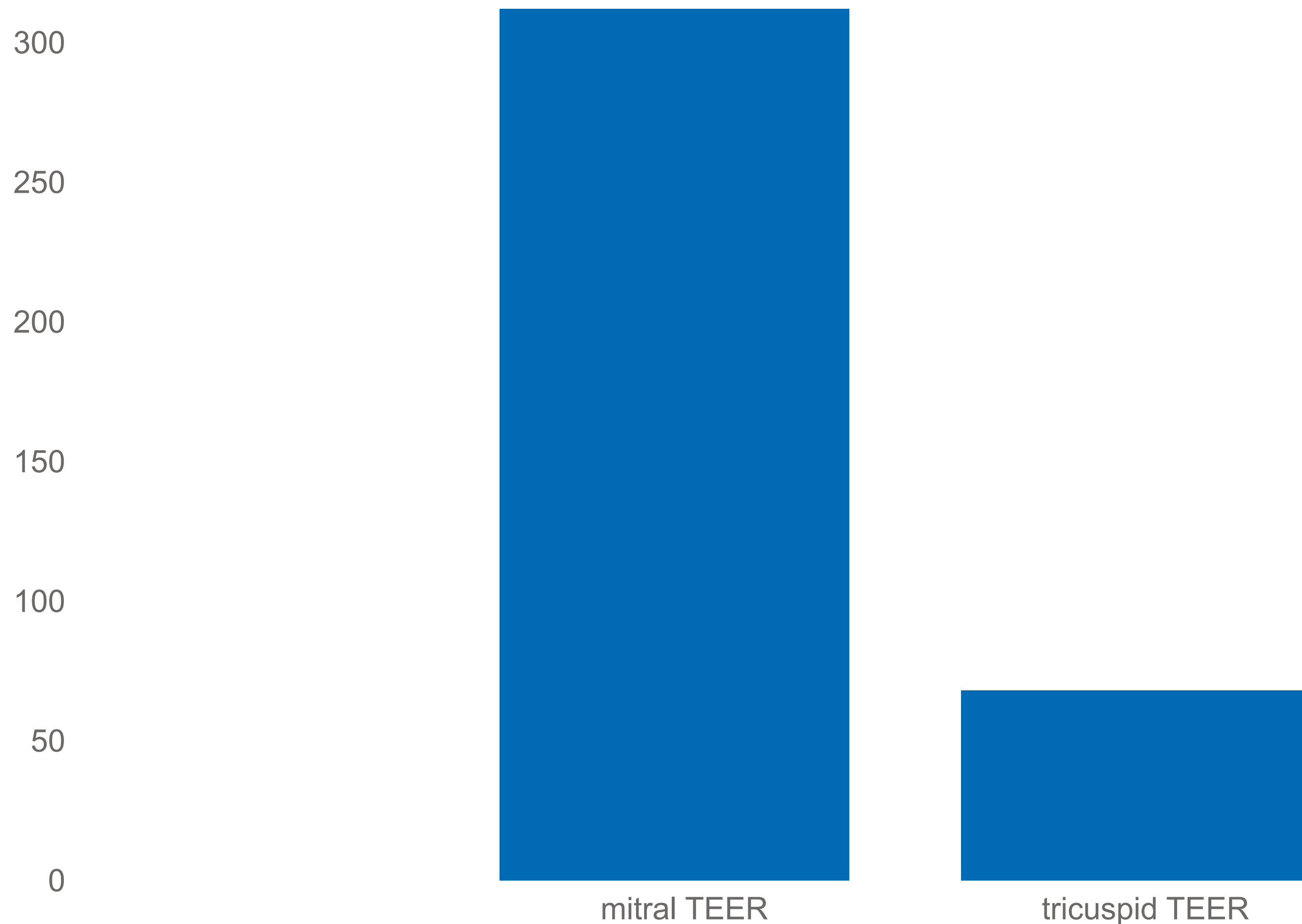
TMTV procedures by type reported via TMTV survey (2023)

The survey of hospitals undertaken separately to the registry submission process identified a total of 383 TMTV procedures in 2023:

- 315 mitral TEER
- 68 tricuspid TEER

The survey confirmed that hospitals not specifically commissioned by NHS England had performed TMTV procedures, including tricuspid TEER procedures.

The feedback from the survey also confirms that the submissions to the TMTV registry (which identified 147 procedures) fall considerably short of capturing all TMTV procedures.



There appears to be significant variation in mitral TEER case numbers across the country in the 12 hospitals that submitted data to the registry



M-TEER procedures reported to TMTV registry by hospital (2023)

In the direct hospital survey (50% response rate to date), a total of 315 mitral valve transcatheter edge-to-edge repair (M-TEER) procedures were identified.

This compares with 147 M-TEER procedures submitted to the registry (38% of those identified in the survey).

Barts Heart Centre reported more than three times the number of mitral TEER procedures than other hospitals

