NICOR Transcatheter Mitral & Tricuspid Valve (TMTV) Registry

Overview of Quality Improvement (QI) metrics

1. Annual Centre Volume

QI Metric Description/Name	**Annual centre volume**
Why is this important?	Outcomes from M-TEER are associated with the number of cases that the centre undertakes
QI theme	Safety
What is the standard to be met?	No standard specified BCIS position statement in draft: minimum 25 cases/year, increase to 50 cases/year by year 3 of programme
Key references to support the metric	• Association between institutional volume of transcatheter mitral valve repair and readmission rates: A report from the Nationwide Readmission Database. Int J Cardiol. 2023 [1] • Institutional Experience with Transcatheter Mitral Valve Repair and Clinical Outcomes: Insights from the TVT Registry. JACC Cardiovasc Interv. 2019 [2]
Numerator	Total number of M-TEER cases submitted
Denominator	Not applicable

2. Urgency of Mitral interventions

QI Metric Description/Name	**Urgency of mitral intervention**
Why is this important?	Outcomes from M-TEER may be affected by the clinical urgency of cases Patients receiving M-TEER as urgent or emergency case have shown greater risk of death (driven by in-hospital mortality) however benefits have been observed in selected patients
QI theme	Safety

What is the standard to be met?	<5% emergency procedures
Key references to support the metric	• Urgent Transcatheter Edge-to-Edge Repair (TEER) of severe mitral regurgitation in patients with cardiogenic shock: A systematic review and meta-analysis of 5,428 patients. European Heart Journal. 2023 [3]
Numerator	Total number of emergency M-TEER cases submitted
Denominator	Total number of M-TEER cases submitted

3. NYHA class

QI Metric Description/Name	**NYHA post mitral TEER**
Why is this important?	A key aim of mitral TEER is to reduce symptoms of breathlessness which is graded using the NYHA classification.
QI theme	Effectiveness
What is the standard to be met?	≥ 82% NYHA class I or II
Key references to support the metric	1-Year Outcomes With Fourth-Generation Mitral Valve Transcatheter Edge-to-Edge Repair From the EXPAND G4 Study. *J Am Coll Cardiol Intv.* 2023 [4]
Numerator	Number of patients post mitral TEER with NYHA class I or II
Denominator	Total number of patients who underwent mitral TEER

4. Discharge of elective patients (i.e. Length of stay)

QI Metric Description/Name	**Discharge of elective patients (i.e. length of stay)**
Why is this important?	Safe and early discharge is associated with more efficient resource utilisation

QI theme	Effectiveness
What is the standard to be met?	Median LOS 2 days for elective M-TEER (range 1-4 days)
Key references to support the metric	▪ Randomized Comparison of Transcatheter Edge-to-Edge Repair for Degenerative Mitral Regurgitation in Prohibitive Surgical Risk Patients [1] - CLASP IID trial [5] ▪ Transcatheter mitral valve therapy in the United States.
Numerator	Proportion of patients discharged at each time point
Denominator	All patients (in whom length of stay is available)

5. Data completeness by hospital

QI Metric Description/Name	**Data completeness by hospital**
Why is this important?	Reported outcomes are determined by quality and completeness of datasets submitted
QI theme	Effectiveness
What is the standard to be met?	>90% data entry
Key references to support the metric	• https://www.nicor.org.uk/national-cardiac-audit-programme
Numerator	Total number of M-TEER cases submitted
Denominator	Total number of M-TEER cases

References

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