

BMC₂

MISHC TAVR V3 M&M Report

The Michigan TAVR M&M Report identifies procedures which have key outcomes submitted and/or are outliers in the Michigan TAVR quality goals or Value Based Reimbursement Goals (VBR) listed below.

The report consists of two sections. First, a summary table in the same format as the Michigan TAVR quarterly and year to date reports. Included is a list of the numerator (# of cases matching the criteria for outcomes and the procedures that do not meet a quality or VBR goal), the denominator (number of procedures/discharges eligible to fit the criteria), and the percent ($n / d * 100\%$). We present two tables: One at the collaborative level and one at the hospital level for your review.

The second section of the report is a listing of specific procedures that either submitted a reported outcome or did not meet the quality or VBR goal.

For each possible outcome or goal, we list a separate table of matching procedures. The columns for these tables are: (NCDR Patient ID SEQ #2040, Sex SEQ #2060, Birth Date SEQ #2050, Arrival Date SEQ #3001, Procedure Date of first procedure SEQ #13329)

Michigan TAVR Goals:

Echocardiogram Post-Procedure $\geq 95\%$
30 day Follow Up submission 99%
1 Year Follow Up submission 99%
Bleeding/Vascular Complications $\leq 2\%$
Transfusion $\leq 8\%$

VBR Goals:

Contrast Volume/eGFR ≥ 3 without a concurrent procedure $\leq 5\%$
KCCQ at Baseline and 30 days (matched pairs) $\geq 90\%$
NYHA Class documented on 30 day follow up $\geq 92\%$

Outcomes:

Death
Stroke (Any)
Permanent Pacemaker
CIN
AKI
Contrast Volume/eGFR ≥ 3 in all TAVR procedures
Air Kerma ≥ 5 Gy
Cardiac Rehab referral prior to discharge

Updated 11/22/2022

MI TAVR Goals

Echocardiogram Post-Procedure $\geq 95\%$

Numerator: The number of TAVR discharges that were discharged during the reporting period in which the Echocardiogram Performed SEQ #13592 is documented as yes, TTE or TEE.

Denominator: Denominator: The total number of TAVR discharges that were discharged during the reporting period that did not have Death During Procedure SEQ #10120 documented as yes or Procedure Aborted SEQ #13505 documented as Yes.

Exclusions: Death During Procedure and Procedure Aborted.

30 Day Follow Up Submission 99%

Numerator: 30 day follow up - The total number of TAVR discharges that were discharged during the reporting period containing at least one follow up form as of the date the report is generated for the 30 day time period in which Discharge Status SEQ #10105 is documented as Alive and Procedure Aborted SEQ #13505 is documented as No and containing at least one follow up form as of the date the report is generated for the 30 day time period.

Denominator: 30 day follow up - The total number of TAVR discharges undergoing one or more TAVR procedures during the reporting period in which Discharge Status SEQ #10105 is documented as Alive and Procedure Aborted SEQ #13505 is documented as No.

1 Year Follow Up Submission 99%

Numerator: 1 year follow up - The total number of TAVR discharges that were discharged during the reporting period containing at least one follow up form as of the date the report is generated for the 30 day time period in which Discharge Status SEQ #10105 is documented as Alive and Procedure Aborted SEQ #13505 is documented as No, AND 30 day Follow Up Status SEQ # 11004 is documented as Alive and containing at least one follow up form as of the date the report is generated for the 1 year time period.

Denominator: 1 year follow up - The total number of TAVR discharges undergoing one or more TAVR procedures during the reporting period in which Discharge Status SEQ #10105 is documented as Alive and Procedure Aborted SEQ #13505 is documented as No, AND 30 day Follow Up Status SEQ # 11004 is documented as Alive.

Bleeding/Vascular Complications $\leq 2\%$

Numerator: The number of TAVR procedures that were discharged during the reporting period in which the Intra or Post-Procedure Event SEQ #12153, Bleeding - Access Site OR Bleeding - Hematoma at Access Site OR Bleeding - Retroperitoneal and Event Occurred SEQ #9002 is documented as yes.

Denominator: The total number of TAVR procedures that were discharged during the reporting period.

Transfusion $\leq 8\%$

Numerator: The number of TAVR procedures that were discharged during the reporting period in which PRBCs Transfused SEQ #9275 is documented as yes.

Denominator: The total number of TAVR procedures that were discharged during the reporting period.

VBR Goals

Contrast Volume/eGFR ≥ 3 (without a concomitant procedure) $\leq 5\%$

Numerator: Number of TAVR procedures that were discharged during the reporting period without a Concomitant Procedure SEQ #7065 noted to have ratio of contrast dose (Contrast Volume/eGFR) with results ≥ 3 . SEQ #'s: 2050, 2060, 2070 - 2076, 6005, 6050 - 6051, 13764 - 14293, 7215

Denominator: Total TAVR procedures that were discharged during the reporting period without a Concurrent Procedure SEQ #7065 with exclusion of procedures lacking information in data fields used to calculate this field, as well as patients Currently on Dialysis SEQ #13880. Fields used to calculate eGFR include Birth Date, Race, Sex, Weight, Creatinine, and Contrast Volume.

Exclusions: Patients document as Currently on Dialysis pre-procedure SEQ #13880
Values are not rounded.

KCCQ at Baseline and 30 days (matched pairs) $\geq 90\%$

Numerator: The number of TAVR discharges that were discharged during the reporting period that had a KCCQ-12 submitted for baseline AND 30 days for the same patient.

Denominator: The total number of TAVR discharges that were discharged during the reporting period that did not have a Discharge Status, SEQ #10105, documented as Deceased on the base record.

Exclusions: TAVR procedures that were documented as Aborted, SEQ #13505.

NYHA Class Documented on 30 day Follow Up $\geq 92\%$

Numerator: The total number of TAVR discharges that were discharged during the reporting period that have NYHA Class documented on 30 day follow up, SEQ #13688.

Denominator = the total number of TAVR discharges that were discharged during the reporting period that did not have a Discharge Status, SEQ #10105, of Deceased on the base record.

Exclusions: TAVR discharges that had the only TAVR procedure, or all TAVR procedures, documented as Aborted, SEQ #13505.

Outcomes

Deceased

Numerator: The number of TAVR discharges that were discharged during the reporting period where Discharge Status SEQ #10105 is documented as Deceased.

Denominator: The total number of TAVR discharges that were discharged during the reporting period.

Stroke (Any)

Numerator: The number of TAVR procedures that were discharged during the reporting period in which the Intra or Post-Procedure Event Stroke - Ischemic OR Stroke - Hemorrhagic OR Stroke - Undetermined SEQ #12153 and Event Occurred SEQ #9002 is documented as yes.

Denominator: The total number of TAVR procedures that were discharged during the reporting period.

Permanent Pacemaker

Numerator: The number of TAVR procedures that were discharged during the reporting period in which the Intra or Post-Procedure Event Permanent Pacemaker SEQ #12153 and Event Occurred SEQ #9002 is documented as yes.

Denominator: The total number of TAVR procedures that were discharged during the reporting period.

CIN

CIN is defined as Post-Procedure Creatinine (highest) SEQ #13764 or Creatinine (discharge) SEQ #10060, if highest Creatinine is not documented, minus Pre-Procedure Creatinine SEQ #6050 is \geq to 0.5.

Numerator: The number of TAVR discharges that were discharged during the reporting period where all of the following things are true:

- At least one TAVR procedure has a value for Pre-Procedure Creatinine SEQ #6050.
- The TAVR procedure record (with a pre-procedure creatinine value) has a value for Highest Creatinine SEQ #13764 OR the Discharge Creatinine SEQ #10060.
- The patient is not marked as Currently on Dialysis SEQ # 13880 pre-procedure.

Denominator: The total number of TAVR discharges that were discharged during the reporting period excluding Currently on Dialysis (pre-procedure) SEQ #13880 and Procedure Aborted SEQ #13505 is documented as No..

AKI

Numerator: The number of TAVR procedures with at least one of the following:

1. The difference between pre-procedure Creatinine SEQ #6050 and Creatinine (highest) SEQ #13764 or Creatinine (discharge) SEQ #10060 is \geq 300%; OR
2. Pre-procedure Creatinine SEQ #6050 is \geq 4 mg/dL AND the difference between pre-procedure Creatinine and post-procedure Creatinine (highest or discharge) is \geq 0.5; OR
3. Event code of Dialysis - New Requirement SEQ #12153 OR
4. Currently on Dialysis (pre-procedure) SEQ #13880 is documented as Yes.

Denominator: The total number of TAVR discharges that were discharged during the reporting period excluding Currently on Dialysis (pre-procedure) SEQ #13880 and Procedure Aborted SEQ #13505 is documented as No..

Contrast Volume/eGFR \geq 3 in all TAVR procedures

Numerator: The number of all TAVR procedures discharged during the reporting period calculated to have the ratio of Contrast Volume to eGFR \geq 3. SEQ #'s: Birth Date 2050, Sex 2060, Race 2070-74, Ethnicity 2076, Weight 6005, Creatinine 6050 - 6051, Contrast Volume 7215.

Denominator: The total number of TAVR procedures that were discharged during the reporting period with the exclusion of procedures lacking information in data fields used to calculate this field, as well as patients Currently on Dialysis SEQ #13880. Including Birth Date, Sex, Race, Ethnicity, Weight, Creatinine, and Contrast Volume.

Excludes patients Currently on Dialysis SEQ #13880
Values are not rounded

Air Kerma >5Gy

Numerator: The number of TAVR discharges that were discharged during the reporting period in which Cumulative Air Kerma SEQ #7210 is documented as >5Gy.

Denominator: The total number of TAVR discharges that were discharged during the reporting period.

Cardiac Rehab Referral Prior to Discharge

Numerator: The number of TAVR discharges that were discharged during the reporting period in which Cardiac Rehabilitation Referral is documented as No for any reason.

Denominator: The total number of TAVR discharges that were discharged during the reporting period that did not have Death During Procedure SEQ #10120 documented as yes or Procedure Aborted SEQ #13505 documented as Yes.

Exclusions: Death During Procedure and Procedure Aborted.