Transcatheter Tricuspid Valve Procedure – Repair/Replacement (TTVP)
v3 Data Collection Form

STS/ACC TVT Registry™

A. Demographics

Last Name[2000]:	**First Name**[2010]:	**Middle Name**[2020]:
Birth Date[2050]: mm / dd / yyyy	**SSN**[2030]: - - ☐ SSN N/A[2031]	**Patient ID**[2040]: (auto)
Other ID[2045]:	**Sex**[2060]: O Male O Female	**Patient Zip Code**[2065]: ☐ Zip Code N/A[2066]

Race: (check all that apply) ☐ White[2070] ☐ Black/African American[2071] ☐ American Indian/Alaskan Native[2073] ☐ Asian[2072] ☐ Native Hawaiian/Pacific Islander[2074] ☐ Middle Eastern/North African[2075]

Hispanic or Latino Ethnicity[2076]: O No O Yes → **If** Yes, **Ethnicity Type:** (check all that apply)

B. Episode of Care

Arrival Date/Time[3001]: mm / dd / yyyy / hh:mm

Admitting Provider's Name NPI[3050,3051,3052,3053]: _____ *Last Name, First Name, MI, NPI*

Attending Provider's Name NPI[3055,3056,3057,3058]: _____ *Last Name, First Name, MI, NPI*, _____ *Last Name, First Name, MI, NPI*

Health Insurance[3005]: O No O Yes

→ **If** Yes, **Payment Source**[3010]: (Select all that apply)
☐ Private Health Insurance ☐ Medicare (Fee-For-Service) ☐ Medicare Advantage
☐ Medicaid ☐ Military Health Care ☐ State-Specific Plan (non-Medicaid)
☐ Indian Health Service ☐ Non-US Insurance

MBI #[12846]:

Residence[13803]: O Home with No Health Aid O Home with Health Aid O Long Term Care O Other ☐ Not Documented[13804]

Research Study

Patient Enrolled in Research Study[3020]: O No O Yes ☐ **Patient Restriction**[3035]

→ **If** Yes, **Research Study Name**[3025] **Research Study Patient ID**[3030]: _____, _____

Transcatheter Valve Therapy (TVT) Pathway

TVT Pathway[13171]: ☐ TAVR ☐ TMVr ☐ TMVR ☐ Tricuspid Valve Procedure

C. History and Risk Factors

Height[6000]**:** _____ cm **Weight**[6005]**:** _____ kg

Number of Prior Open Heart Cardiac Surgeries[13697]**:** ___ *(If the patient has had >4 prior surgeries and the number is not known, code 4 prior surgeries)*

Heart Failure Hospitalization Within Past Year[13707]**:** O No O Yes □ Not Documented[14253]

Oxygen at Home[13881]**:** O No O Yes

Immunocompromise Present[13882]**:** O No O Yes **Currently on Dialysis** [13880] O No O Yes

Tobacco Use[4625]**:** O Never O Former O Current-Every Day O Current-Some Days O Smoker – Current Status Unk O Unk if ever smoked

→If any Current, **Tobacco Type**[4626] *(Select all that apply)*: ☐ Cigarettes ☐ Cigars ☐ Pipe ☐ Smokeless

→If Current Every Day and Cigarettes, **Amount**[4627]: O Light tobacco use (<10/day) O Heavy tobacco use (>=10/day)

Home Medications

Category	Medication Code[12297]	Med Prescribed[13903]	Loop Diuretic Dose[14575]
ACE Inhibitors (Angiotensin Converting Enzyme)	**Angiotensin Converting Enzyme Inhibitor**	O No O Yes	
Aldosterone Antagonist	**Aldosterone Antagonist**	O No O Yes	
Angiotensin Receptor-Neprilysin Inhibitor	**Angiotensin Receptor-Neprilysin Inhibitor**	O No O Yes	
Anticoagulant	**Anticoagulant**	O No O Yes	
Antiplatelet	**Aspirin**	O No O Yes	
ARB (Angiotensin Receptors Blockers)	**Angiotensin II Receptor Blocker**	O No O Yes	
Beta Blockers	**Beta Blocker**	O No O Yes	
Diuretics	**Diuretics Not Otherwise Specified**	O No O Yes	
	Loop Diuretics	O No O Yes	_____ mg
	Thiazides	**O No O Yes**	
P2Y12 Inhibitors	**P2Y12 Antagonist**	O No O Yes	
Selective Sinus Node I/f Channel Inhibitor	**Selective Sinus Node I/f Channel Inhibitor**	O No O Yes	

Condition and Procedure History Information (Patient History and Risk Factors up to the Procedure)

Condition History[12903]	Occurrence[14264] No	Occurrence[14264] Yes	Date[14251]	
Atrial Fibrillation	O	O		→**If** Yes, **AFib Class**[13179]: O Paroxysmal O Persistent O Long-standing Persistent (w/in 30 days) O Permanent O None →**If** Parox or persis, **Recent AF** (w/in 30 days)[14244]: O No O Yes
Atrial Flutter	O	O		→**If** Yes, **Recent Aflutter** (w/in 30 days)[14245]: O No O Yes
Cardiomyopathy	O	O		→ **If** Yes, **CM Type**[4570]: ☐ Ischemic ☐ Non-ischemic ☐ Other
Carotid Artery Stenosis	O	O		→ **If** Yes, **Current Carotid Artery Stenosis**[14265]: O No O Yes → **If** Yes, **Location**[14230]: O Right O Left O Bilateral ☐ Location Not Documented[14329]
Cerebrovascular Accident (any)	O	O	mm/dd/yyyy	
Cerebrovascular Disease	O	O		
Chronic Lung Disease	O	O		→ **If** Yes, **Severity**[13904]: O Mild O Moderate O Severe ☐ Severity Not Documented[14459]
COVID-19				
Conduction Defect	O	O		
Dementia - Moderate to Severe	O	O		
Diabetes Mellitus	O	O		→ **If** Yes, **Therapy**[14231]: O None O Diet O Oral O Insulin O Other
Endocarditis	O	O		→ **If** Yes, **Type**[14232]: O Treated O Active
Heart Failure	O	O		
Hostile Chest	O	O		
Hypertension	O	O		
Liver Disease	O	O		
Myocardial Infarction	O	O		→**If** Yes, **MI Timeframe**[13174]: O <30 days O >=30 days
Peripheral Arterial Disease	O	O		
Porcelain Aorta	O	O		
Transient Ischemic Attack	O	O		

Procedure History[12905]	Occurrence[14268] No	Occurrence[14268] Yes	Date[14252]	
Aortic Valve Procedure	O	O	mm/dd/yyyy	
Aortic Valve Repair Surgery	O	O		
Aortic Valve Replacement Surgery	O	O		
Aortic Valve Replacement - Transcatheter	O	O		
Coronary Artery Bypass Graft	O	O	mm/dd/yyyy	
Implantable Cardioverter Defibrillator	O	O		→ **If** Yes, **CRT-D**[14259]: O No O Yes
Mitral Valve Procedure	O	O	mm/dd/yyyy	
Mitral Valve Annuloplasty Ring Surgery	O	O		
Mitral Valve Repair Surgery	O	O		
Mitral Valve Replacement Surgery	O	O		
Mitral Valve Transcatheter Intervention	O	O		
PCI	O	O	mm/dd/yyyy	
Permanent Pacemaker	O	O	mm/dd/yyyy	→ **If** Yes, **CRT**[14260]: O No O Yes
Pulmonic Valve Procedure	O	O		
Tricupsid Valve Procedure	O	O	mm/dd/yyyy	
Tricuspid Valve Repair Surgery	O	O		→ **If** Yes, **TV Annuloplasty Ring**[14299]: O No O Yes
Tricuspid Valve Replacement Surgery	O	O		→ **If** Yes, **Implant ID**[14298]/**Dia**[14516]: Refer to device list
Tricuspid Valve Replacement - Transcatheter	O	O		→ **If** Yes, **Implant ID**[14301]/**Dia**[14517]: Refer to device list
Tricuspid Valve Transcatheter Intervention	O	O		→ **If** Yes, **TV Intervention Type**[14300]: O Annuloplasty Ring O Other

D. Lab Visit (Complete for each Lab Visit)

Procedures[14273]: □ **TAVR** □ **TMVr** □ **TMVR** □ **Tricuspid Valve Procedure**

Procedure Room Entry Date/Time[13329]: mm / dd / yyyy HH:MM **Procedure Start Date/Time**[7000]: mm / dd / yyyy HH:MM

Procedure End Date/Time[7005]: mm / dd / yyyy HH:MM **Procedure Room Exit Date/Time**[13330]: mm / dd / yyyy HH:MM

Presentation and Evaluation

CAD Presentation[12177]: O No Symptoms, No Angina O Symptoms Unlikely to be Ischemic O Stable Angina O Unstable Angina O Non-STEMI O STEMI

Heart Failure (w/in 2 weeks)[14266]: O No O Yes

NYHA Class (w/in 2 weeks)[12163]: O I O II O III O IV

Cardiogenic Shock (w/in 24 hrs)[13175]: O No O Yes

Cardiac Arrest (w/in 24 hrs)[14267]: O No O Yes

Shared Decision Making[14732]: O No O Yes

→**If** Yes, **Shared Decision Making Tool Used**[14733]: O No O Yes →**If** Yes, **Shared Decision Making Tool Name**[14734]: _____

KCCQ-12 Performed[13843]: O No O Yes

→**If** Yes, **KCCQ-12**[13846, 48, 49, 51, 53, 55, 57, 59, 61, 63, 65, 67] (see separate questionnaire) **Q1a:** _____ **Q1b:** _____ **Q1c:** _____ **Q2:** _____ **Q3:** _____ **Q4:** _____

Q5: _____ **Q6:** _____ **Q7:** _____ **Q8a:**_____ **Q8b:**_____ **Q8c:**_____ **KCCQ Summary Score**[14310]: **(calculated)** _____

Six Minute Walk Test[13710]: O No O Yes →**If** Yes, **Test Date**[13711]: mm / dd / yyyy →**If** Yes, **Total Distance**[13712]: _____ ft

→**If** No, **Reason**[14262]: O Non-Cardiac Reason O Cardiac Reason O Patient Not Willing to Walk O Not Performed By Site

Pre-Procedure Clinical Data (closest to the procedure)

Hemoglobin[6030]:	_____ g/dL	□ Not Drawn[6031]	**Bilirubin**[6055]:	_____ mg/dL	□ Not Drawn[6056]
Platelet Count[13213]:	_____ µL	□ Not Drawn[13214]	**Albumin**[14210]:	_____ g/dL	□ Not Drawn[14211]
INR[13203]:	_____	□ Not Drawn[6046]			
Sodium[6035]:	_____ mEq/L	□ Not Drawn[6036]	**BNP**[14280]:	_____ pg/mL	□ Not Performed[13205]
Creatinine[6050]:	_____ mg/dL	□ Not Drawn[6051]	(or) **NT proBNP**[14279]:	_____ pg/mL	□ Not Performed[13206]

Pre-Procedure ECG and Pulmonary Function (closest to the procedure)

QRS Duration[5055]: _____ msec □ Ventricular Paced[5045]

FEV1 Predicted[13216]: _____ % □ Not Performed[13217]

DLCO (Predicted)[13218]: _____ % □ Not Performed[13219]

Pre-Procedure Medications (24 hours prior to the procedure)

Positive Inotropes[13643]: O No O Yes

Pre-Procedure Diagnostic Cath Findings

Diagnostic Cath Performed[13220]: O No O Yes → **If** Yes□**Diagnostic Cath Date**[13222]: mm / dd / yyyy

Number of Diseased Vessels[13381]	O None O One O Two O Three		□ Not Documented[13382]
Left Main Stenosis >=50%[13260]:	O No O Yes		□ Not Documented[13261]
Proximal LAD >=70%[13301]:	O No O Yes		□ Not Documented[13302]
Cardiac Output[13713]:		_____ L/min	□ Not Documented[13714]
Pulmonary Capillary Wedge Pressure[13715]:		_____ mm Hg	□ Not Documented[13716]
Pulmonary Artery Pressure (mean)[13719]:		_____ mm Hg	□ Not Documented[13720]
Pulmonary Vascular Resistance[14291]:		_____ Wood units	□ Not Documented[14289]
Right Atrial Pressure (mean)[14272]:		_____ mm Hg	□ Not Documented[13829]
Right Ventricular Systolic Pressure[13303]: (highest)		_____ mm Hg	□ Not Documented[13304]

PRE-PROCEDURE ECHOCARDIOGRAM FINDINGS

LVEF[13305]: _____ % □ LVEF Not Assessed[13306]

Aortic Regurgitation[13477]: (highest) O None O Trace/Trivial O Mild O Moderate O Severe

Aortic Stenosis[13307]: O No O Yes

Mitral Valve Disease[13704]: O No O Yes

→**If** Yes, **Mitral Regurgitation**[13672]: (highest) O None O Trace/Trivial O Mild O Moderate O Moderate-Severe O Severe

→**If** Yes, **Mitral Stenosis**[13308]: O No O Yes

→**If** Yes, **MV Area**[13316]: (smallest) _____ cm^2

→**If** Yes, **MV Mean Gradient**[13317]: (highest) _____ mm Hg

Tricuspid Valve Disease Etiology[13806]: O Primary O Secondary O Pacemaker Induced O Other

Tricuspid Regurgitation[13318]: (highest) O None O Trace/Trivial O Mild O Moderate O Severe

TV Diastolic Gradient[13807]: _____ mm Hg □ Not Documented[13810]

TV Annulus Size[13808]: _____ mm □ Not Documented[13809]

End-diastolic Mid-RV Diameter[13811]: _____ cm (4 chamber view) □ Not Documented[13812]

End-diastolic Basal-RV Diameter[13813]: _____ cm (4 chamber view) □ Not Documented[13814]

PROCEDURE INFORMATION

Concomitant Procedures Performed[7065]: O No O Yes

→**If** Yes, **Procedure Type(s)**[7066]: (select the best option(s)): _____ □ _____ □ _____

Operator Name/NPI[14476, 14477, 14478, 14479]: *Last Name, First Name, MI, NPI* □ *Last Name, First Name, MI, NPI*

Procedure Status[7025]: O Elective O Urgent O Emergency O Salvage

Heart Team Reason For Procedure[13499]: O Extreme Risk O High Risk O Intermediate Risk O Low Risk

Heart Team Evaluation of Suitability for Surgical Replacement[13504]: O No O Yes

Procedure Location[12871]: O Cardiac CathLab O Hybrid CathLab Suite OHybrid OR Suite O Other

Anesthesia Type[13331]: O General Anesthesia O Deep Sedation/Analgesia O Moderate Sedation/Analgesia O Minimal Sedation/Anxiolysis

Procedure Aborted[13505]: O No O Yes

→**If** Yes, **Reason**[13506]: O Access Related O Consent Issue O Device Delivery System Malfunction O Navigation Issue After Successful Access O New Clinical Findings O Patient Clinical Status O System Issue O Other

→**If** Yes, **Action**[13757]: O Conversion to Open Heart Surgery O Scheduled Open Heart Surgery O Rescheduled Transcatheter Procedure O Converted to Clinical Trial O Balloon Valvuloplasty O Converted to Medical Therapy O Other

Conversion to Open Heart Surgery[13542]: O No O Yes

→**If** Yes, **Reason**[13543]:
O Valve Dislodged to Aorta O Valve Dislodged to Left Ventricle O Annulus Rupture O Ventricular Rupture
O Aortic Dissection O Coronary Occlusion O Access Related O Cardiac Tamponade
O Inability to Position Device O Device Embolization O Valve Injury O Other

Mechanical Support[7422]: O No O Yes

→**If** Yes, **Device**[7423]: _____

→**If** Yes, **Timing**[7424]: O In place at start of procedure O Inserted during procedure and prior to intervention O Inserted after intervention has begun O Post Procedure

CardioPulmonary Bypass Used[13579]: O No O Yes

→**If** Yes, **Status**[13580]: O Elective O Emergency →**If** Yes, **CPB Time**[13581]: _____ min

Delivery System Removed[13525]: O No O Yes

PROCEDURE MEDICATIONS (DURING THE PROCEDURE)

Positive Inotropes[13644]: O No O Yes

RADIATION AND CONTRAST

CODE ALL AVAILABLE MEASUREMENTS

Dose Area Product[14278]: _____ O Gy · cm^2 O dGy · cm^2 O cGy · cm^2 O mGy · cm^2 O µGy · M^2

Cumulative Air Kerma[7210]: _____ O mGy O Gy **Fluoro Time**[7214]: _____ min **Contrast Volume**[7215]: _____ mL

TTVP PROCEDURE INFORMATION

Tricuspid Procedure Type[13815]: O Tricuspid Valve Replacement O Annular Reduction O Direct Leaflet

→If TV Replacement, **Location**[13816]: O Native Valve O Surgical Valve O Surgical Ring O IVC only O SVC and IVC

Procedure Indication[13817]: O Tricuspid Regurgitation O Tricuspid Stenosis O Both TR and TS (with at least moderate TR)

Procedure Access Site[13838]: O Femoral Vein O Jugular Vein O Right Atrium O Other Vein

Transvenous RV Lead Present[13839]: O No O Yes *(Code only for patients with Tricuspid Valve Replacement)*

→**If** Yes, **RV Lead Strategy**[13840]: O Jailed by Transcatheter Valve O Lead Removed Prior to Valve Implant

→**If** Jailed, **Change in Lead Function**[13841]: O No O Yes

INTRAPROCEDURE HEMODYANMICS	PRE-IMPLANT	POST-IMPLANT
→If Location = "IVC only" or "SVC and IVC", **Superior Vena Cava Pressure**:	____mm hg[13819] ☐ Not Documented[13820]	____mm hg[13821] ☐ Not Documented[13822]
→If Location = "IVC only" or "SVC and IVC", **Inferior Vena Cava Pressure**:	____mm hg[13823] ☐ Not Documented[13825]	____mm hg[13824] ☐ Not Documented[13826]
Right Atrial Pressure:	____mm hg[13827] ☐ Not Documented[14290]	____mm hg[13828] ☐ Not Documented[13830]
Right Ventricular Systolic Pressure:	____mm hg[14281] ☐ Not Documented[13831]	____mm hg[13832] ☐ Not Documented[13833]
TV Diastolic Gradient:	____mm hg[13834] ☐ Not Documented[13836]	____mm hg[13835] ☐ Not Documented[13837]
→**If** Procedure Aborted is No☐**TTVP DEVICES**	**DEVICE 1**[13531]	**DEVICE 2**[13531]
Device ID[14483]**/Dia**[14520] :	Refer to Device List	Refer to Device List
Device Implanted Successfully[13537]:	O No O Yes	O No O Yes
→**If** Yes, **Serial #**[13842]:		
→**If** Yes, **UDI**[14571]:		
→**If** No, **Reason**[13540]: *Note: If more than one reason, code the worst reason the device was not implanted.*	O Adverse Event O Anchor Pull Through O Device Embolization O Device Malfunction O Improper Device Positioning O Improper Device Sizing O Inability to Deploy Valve O Inability to Deploy Stent O Inability to Grasp Leaflets O Inability to Deliver Device Anchor O Inability to Reduce Annular Dimension O Inability to Reduce TR O IVC Too Large O Leaflet Detachment O Single Leaflet Device Attachment O Tricuspid Valve Stenosis O Tricuspid Valve Injury O Other	O Adverse Event O Anchor Pull Through O Device Embolization O Device Malfunction O Improper Device Positioning O Improper Device Sizing O Inability to Deploy Valve O Inability to Deploy Stent O Inability to Grasp Leaflets O Inability to Deliver Device Anchor O Inability to Reduce Annular Dimension O Inability to Reduce TR O IVC Too Large O Leaflet Detachment O Single Leaflet Device Attachment O Tricuspid Valve Stenosis O Tricuspid Valve Injury O Other

POST-PROCEDURE - INTRA OR POST-PROCEDURE EVENTS (COMPLETE FOR EACH PROCEDURE TYPE AND EVERY OCCURRENCE)

INTRA OR POST PROCEDURE EVENT(S)[12153]	EVENT(S) OCCURRED[9002]	→ IF YES EVENT DATE(S)[14275]
Annular Rupture	O No O Yes	mm / dd / yyyy
Atrial Fibrillation	O No O Yes	mm / dd / yyyy
Bleeding – Access Site	O No O Yes	mm / dd / yyyy
Bleeding – Gastrointestinal	O No O Yes	mm / dd / yyyy
Bleeding – Genitourinary	O No O Yes	mm / dd / yyyy
Bleeding - Hematoma at Access Site	O No O Yes	mm / dd / yyyy
Bleeding – Other	O No O Yes	mm / dd / yyyy
Bleeding – Retroperitoneal	O No O Yes	mm / dd / yyyy
Cardiac Arrest	O No O Yes	mm / dd / yyyy
Cardiac Perforation	O No O Yes	mm / dd / yyyy
Cardiac Surgery or Intervention – Other Unplanned	O No O Yes	mm / dd / yyyy
Complete Leaflet Clip Detachment	O No O Yes	mm / dd / yyyy
Coronary Artery Compression	O No O Yes	mm / dd / yyyy
COVID-19	O No O Yes	mm / dd / yyyy
Device Embolization	O No O Yes	mm / dd / yyyy
Device Migration	O No O Yes	mm / dd / yyyy
Device Thrombosis	O No O Yes	mm / dd / yyyy
Device Related Event – Other	O No O Yes	mm / dd / yyyy
Dialysis (New Requirement)	O No O Yes	mm / dd / yyyy
Endocarditis	O No O Yes	mm / dd / yyyy
ICD	O No O Yes	mm / dd / yyyy
Myocardial Infarction	O No O Yes	mm / dd / yyyy
Pacemaker Lead Dislodgement or Dysfunction	O No O Yes	mm / dd / yyyy
Percutaneous Coronary Intervention	O No O Yes	mm / dd / yyyy
Permanent Pacemaker	O No O Yes	mm / dd / yyyy
Pulmonary Embolism	O No O Yes	mm / dd / yyyy
Reintervention – Tricuspid Valve (complete event info)	O No O Yes	mm / dd / yyyy
Single leaflet device attachment	O No O Yes	mm / dd / yyyy
Stroke – Ischemic	O No O Yes	mm / dd / yyyy
Stroke – Hemorrhagic	O No O Yes	mm / dd / yyyy
Stroke – Undetermined	O No O Yes	mm / dd / yyyy
Transient Ischemic Attack (TIA)	O No O Yes	mm / dd / yyyy
Tricuspid Leaflet or Subvalvular Injury	O No O Yes	mm / dd / yyyy
Vascular Complication – Major	O No O Yes	mm / dd / yyyy
Vascular Complication – Minor	O No O Yes	mm / dd / yyyy
Vascular Surgery or Intervention – Unplanned	O No O Yes	mm / dd / yyyy

IN-HOSPITAL EVENT INFORMATION (COMPLETE FOR EACH TV RE-INTERVENTION DURING EPISODE OF CARE)

Event[14312]: **Event Date**[14313]: mm / dd / yyyy

O Tricuspid Valve Re-intervention (In-hospital)

Status[14314]: O Alive O Deceased →**If** Deceased, **Date of Death:**[14315]: mm / dd / yyyy

Clinical Comments[14462]:

→IF EVENT[14312] = TRICUSPID VALVE RE-INTERVENTION (IN-HOSPITAL)

Tricuspid Valve Re-intervention Type[14322]: O Surgical Replacement O Surgical Repair O Transcatheter Replacement
O Balloon Valvuloplasty O Leaflet Clip Procedure O Paravalvular Leak Closure
O Other Transcatheter Intervention

TV Re-intervention Primary Indication[14347]:

O Regurgitation O Stenosis O Device Embolization O Device Fracture O Device Migration
O Endocarditis O Paravalvular Leak O Device Thrombosis O Valve Injury O Other

→**If** Regurgitation **TV Regurg**[14383]: O None O Trace/Trivial O Mild O Moderate O Severe

POST-PROCEDURE CLINICAL DATA (COMPLETE FOR EACH PROCEDURE TYPE)

Hemoglobin (lowest)[13763]: _____ (g/dL) ☐ Not Drawn[14243] **Creatinine (highest)**[13764]: _____ (mg/dL) ☐ Not Drawn[14293]
Creatinine (discharge)[10060]: _____ (mg/dL) ☐ Not Drawn[10061]

12-Lead ECG Performed[13616]: O No O Yes
→**If** Yes☐**12-Lead ECG Findings**[13765] *(Check all that apply)*: ☐ No Significant Changes ☐ Pathological Q Wave ☐ New LBBB ☐ Cardiac Arrhythmia

POST-PROCEDURE ECHOCARDIOGRAM *(COMPLETE FOR EACH PROCEDURE)*

Echocardiogram[13592]: O Yes – TTE O Yes - TEE ☐ Not Performed[13645] →**If** Yes☐**Date**[13493]: mm / dd / yyyy

→**If** Yes☐**Aortic Regurgitation**[13526]: O None O Trace/Trivial O Mild O Moderate O Severe
→**If** Yes **AV Mean Gradient**[13675]: (highest) _____ mm Hg
→**If** Yes☐**Mitral Regurgitation**[13494]: O None O Trace/Trivial O Mild O Moderate O Moderate-Severe O Severe
→**If** Yes, **Tricuspid Regurgitation**[13677]: (highest) O None O Trace/Trivial O Mild O Moderate O Severe
→**If** >= Trace/Trivial, **Paravalvular Regurgitation**[14505] O None O Mild O Moderate O Severe ☐ Not Documented[14526]
→**If** >= Trace/Trivial, **Central Regurgitation**[14501]: O None O Mild O Moderate O Severe ☐ Not Documented[14489]
→**If** Yes,**TV Diastolic Gradient**[14507]: _____ mm Hg ☐ Not Documented[14508]
→**If** Yes,**TV Annulus Size**[14294]: _____ mm ☐ Not Documented[14495]
→**If** Yes, **End-diastolic Mid-RV Diameter**[14295]: _____ cm (4 chamber view) ☐ Not Documented[14496]
→**If** Yes, **End-diastolic Basal-RV Diameter**[14296]: _____ cm (4 chamber view) ☐ Not Documented[14497]
→**If** Yes, **Right Ventricular Systolic Pressure**[14297]: _____ mm Hg ☐ Not Documented[14498]

E. DISCHARGE

Discharge Date[10100]: mm / dd / yyyy

Discharge Provider Name☐NPI[10070,10071,10072,10073]: *Last Name, First Name, MI, NPI* _____

Discharge Status[10105] O Alive O Deceased

→ **If** Alive, **Cardiac Rehabilitation Referral**[10116]: O No - Reason Not Documented O No - Medical Reason Documented O No - Health Care System Reason Documented O No - Patient-Oriented Reason O Yes

→ **If** Alive, **Discharge Location**[10110]: O Home O Skilled Nursing Facility O Extended Care/TCU/Rehab O Other Acute Care Hospital O Left Against Medical Advice (AMA) O Other Discharge Location

→ **If** Alive, **Hospice Care**[10115]: O No O Yes

→ **If** Deceased, **Death During Procedure**[10120]: O No O Yes

→ **If** Deceased, **Cause of Death**[10125]:

O Acute myocardial infarction	O Pulmonary	O Hemorrhage
O Sudden cardiac death	O Renal	O Non-cardiovascular procedure or surgery
O Heart failure	O Gastrointestinal	O Trauma
O Stroke	O Hepatobiliary	O Suicide
O Cardiovascular procedure	O Pancreatic	O Neurological
O Cardiovascular hemorrhage	O Infection	O Malignancy
O Other cardiovascular reason	O Inflammatory/Immunologic	O Other non-cardiovascular reason

PRBCs Transfused[9275]: O No O Yes *Note: Code the total # of units between start of the procedure and discharge*
→**If** Yes☐**PRBCs Units Transfused**[13670]: _____

DISCHARGE MEDICATIONS *D/c meds are not required for patients who expired, discharged to "Other acute care Hospital," "AMA", or are receiving Hospice Care.*

CATEGORY	MEDICATION CODE[10200]	PRESCRIBED[10205]				→ If Yes☐ LOOP DIURETIC DOSE[14576]
		YES	NO– NO REASON	NO– MEDICAL REASON	NO– PT REASON	
ACE Inhibitors (Angiotensin Converting Enzyme)	Angiotensin Converting Enzyme Inhibitor	O	O	O	O	
Aldosterone Antagonist	Aldosterone Antagonist	O	O	O	O	
Anticoagulant	Direct Thrombin Inhibitor	O	O	O	O	
	Warfarin	O	O	O	O	
Antiplatelet	Aspirin	O	O	O	O	
ARB (Angiotensin Receptors Blockers)	Angiotensin II Receptor Blocker	O	O	O	O	
Beta Blockers	Beta Blocker	O	O	O	O	
Diuretics	Diuretics Not Otherwise Specified	O	O	O	O	
	Loop Diuretics	O	O	O	O	_____ mg
	Thiazides	O	O	O	O	
Non-Vitamin K Dependent Oral Anticoagulant	Direct Factor Xa Inhibitor	O	O	O	O	
P2Y12 Inhibitors	P2Y12 Antagonist	O	O	O	O	

F. FOLLOW-UP: 30 DAY (23 TO 75 DAYS POST PROCEDURE); 1 YEAR (305 TO 425 DAYS POST PROCEDURE)

Follow-up Assessment Date[11000]: mm / dd / yyyy

Reference Episode Arrival Date/Time[11002]: mm / dd / yyyy HH:MM

Reference Episode Discharge Date[14338]: mm / dd / yyyy

Reference Procedure Start Date/Time[11001]: mm / dd / yyyy HH:MM

Reference Procedure Type[13705]: O TAVR O TMVr O TMVR O Tricuspid Valve Procedure

Method(s) to Determine Status[11003]:
☐ Office Visit ☐ Medical Records ☐ Letter from Medical Provider
☐ Phone Call ☐ Social Security Death Master File ☐ Hospitalized
☐ Obituary List ☐ CMS Linked Data ☐ Other

Follow-up Status[11004]: O Alive O Deceased O Lost to Follow-up

→ **If** Alive, **Residence**[13805]: O Home with No Health Aid O Home with Health Aid O Long Term Care O Other ☐ Not Documented[14511]

→ **If** Deceased, **Date of Death**[11006]: mm / dd / yyyy

→ **If** Deceased, **Cause of Death**[11007]:

O Acute myocardial infarction	O Pulmonary	O Hemorrhage
O Sudden cardiac death	O Renal	O Non-cardiovascular procedure or surgery
O Heart failure	O Gastrointestinal	O Trauma
O Stroke	O Hepatobiliary	O Suicide
O Cardiovascular procedure	O Pancreatic	O Neurological
O Cardiovascular hemorrhage	O Infection	O Malignancy
O Other cardiovascular reason	O Inflammatory/Immunologic	O Other non-cardiovascular reason

FOLLOW-UP CLINICAL ASSESSMENT

Hemoglobin[13775]: _____ g/dL ☐ Not Drawn[14326] **Creatinine**[13310]: _____ mg/dL ☐ Not Drawn[13311]

NYHA Classification[13688]: O I O II O III O IV ☐ Not Documented[14333]

12-Lead ECG Performed[13689]: O No O Yes

→**If** Yes ☐ **12-Lead ECG Findings**[13621]: ☐ No Significant Changes ☐ Pathological Q Wave ☐ New LBBB ☐ Cardiac Arrhythmia
(Check all that apply)

FOLLOW-UP IMAGING – ECHOCARDIOGRAM AND 4D CT

Echocardiogram[13492]: O Yes - TTE O Yes - TEE ☐ Not Performed[14512] →**If** Yes, **Date**[13593]: mm / dd / yyyy

→**If** Yes, **LVEF**[13690]: _____ % ☐ LVEF Not Assessed[13691]

→**If** Yes ☐ **Aortic Valve Mean Gradient**[13676]: _____mm Hg

→**If** Yes ☐ **Aortic Regurgitation**[13527]: O None O Trace/Trivial O Mild O Moderate O Severe

→**If** Yes, **Mitral Regurgitation**[13673]: O None O Trace/Trivial O Mild O Moderate O Moderate-Severe O Severe

→**If** Yes, **Tricuspid Regurgitation**[13678]: (highest) O None O Trace/Trivial O Mild O Moderate O Severe

→**If** >= Trace/Trivial **Paravalvular Regurgitation**[14506]: O None O Mild O Moderate O Severe ☐ Not Documented[14529]

→**If** >= Trace/Trivial, **Central Regurgitation**[14502]: O None O Mild O Moderate O Severe ☐ Not Documented[14492]

→**If** Yes, **TV Diastolic Gradient**[14545]: _____ mm Hg ☐ Not Documented[14546]

→**If** Yes, **TV Annulus Size**[14547]: _____ mm ☐ Not Documented[14548]

→**If** Yes, **End-Diastolic Mid-RV Diameter**[14549]: _____ cm (4 chamber view) ☐ Not Documented[14550]

→**If** Yes, **End-Diastolic Basal-RV Diameter**[14551]: _____ cm (4 chamber view) ☐ Not Documented[14552]

→**If** Yes, **Right Ventricular Systolic Pressure**[14553]: (highest) _____ mm Hg ☐ Not Documented[14554]

4D CT Performed[13692]: O No O Yes

→**If** Yes ☐ **Date**[13693]: mm / dd / yyyy

→**If** Yes ☐ **Valve Thrombosis Noted**[13694]: O No O Yes

→**If** Yes ☐ **Leaflet Dysfunction Noted**[13695]: O No O Yes

FOLLOW-UP SIX MINUTE WALK TEST AND KCCQ

Six Minute Walk Test[13789]: O No O Yes

→**If** Yes, **Test Date**[13790]: mm / dd / yyyy →**If** Yes, **Total Distance**[14325]: _____ ft

→**If** No, **Reason**[14263]: O Non-Cardiac Reason O Cardiac Reason O Patient Not Willing to Walk O Not Performed by Site

KCCQ-12 Performed[13845]: O No O Yes →**If** Yes, **KCCQ-12 Date**[13844]: mm / dd / yyyy

→**If** Yes, **KCCQ-12** [13847, 69, 50, 52, 54, 56, 58, 60, 62, 64, 66, 68]: (see separate questionnaire) **Q1a:** _____ **Q1b:** _____ **Q1c:** _____ **Q2:** _____ **Q3:** _____ **Q4:** _____

Q5: _____ **Q6:** _____ **Q7:** _____ **Q8a:**_____ **Q8b:**_____ **Q8c:**_____ **KCCQ Summary Score**[14535]: **(calculated)** _____

Follow-up Medications

Category	Medication Code[11990]	Prescribed[13696]				→ If Yes Loop Diuretic Dose[14577]
		Yes	No– No Reason	No– Medical Reason	No– Pt Reason	
ACE Inhibitors (Angiotensin Converting Enzyme)	Angiotensin Converting Enzyme Inhibitor	O	O	O	O	
Aldosterone Antagonist	Aldosterone Antagonist	O	O	O	O	
Anticoagulant	Direct Thrombin Inhibitor	O	O	O	O	
	Warfarin	O	O	O	O	
Antiplatelet	Aspirin	O	O	O	O	
ARB (Angiotensin Receptors Blockers)	Angiotensin II Receptor Blocker	O	O	O	O	
Beta Blockers	Beta Blocker	O	O	O	O	
Diuretics	Diuretics Not Otherwise Specified	O	O	O	O	
	Loop Diuretics	O	O	O	O	_____ mg
	Thiazides	O	O	O	O	
Non-Vitamin K Dependent Oral Anticoagulant	Direct Factor Xa Inhibitor	O	O	O	O	
P2Y12 Inhibitor	P2Y12 Antagonist	O	O	O	O	

FOLLOW-UP EVENTS SPECIFY THE EVENTS (AND EVENT DATES) THAT OCCURRED BETWEEN DISCHARGE AND 30 DAY (FIRST) FOLLOW-UP (FU), OR BETWEEN FU ASSESSMENT DATE #1 AND #2.

EVENT(S)[12933]	EVENT(S) OCCURRED[14276]	→ IF YES EVENT DATE(S)[14277]
Atrial Fibrillation	O No O Yes	mm / dd / yyyy
Bleeding – Life Threatening	O No O Yes	mm / dd / yyyy
Bleeding – Major	O No O Yes	mm / dd / yyyy
Cardiac Surgery or Intervention – Other Unplanned	O No O Yes	mm / dd / yyyy
Complete leaflet clip detachment	O No O Yes	mm / dd / yyyy
COVID-19	O No O Yes	mm / dd / yyyy
Deep Vein Thrombosis	O No O Yes	mm / dd / yyyy
Device Embolization	O No O Yes	mm / dd / yyyy
Device Fracture	O No O Yes	mm / dd / yyyy
Device Migration	O No O Yes	mm / dd / yyyy
Device Thrombosis	O No O Yes	mm / dd / yyyy
Device Related Event – Other	O No O Yes	mm / dd / yyyy
Dialysis (New Requirement)	O No O Yes	mm / dd / yyyy
Endocarditis	O No O Yes	mm / dd / yyyy
ICD	O No O Yes	mm / dd / yyyy
Myocardial Infarction	O No O Yes	mm / dd / yyyy
PCI	O No O Yes	mm / dd / yyyy
Permanent Pacemaker	O No O Yes	mm / dd / yyyy
Pulmonary Embolism	O No O Yes	mm / dd / yyyy
Readmission – (Non-Valve Related)	O No O Yes	mm / dd / yyyy
Readmission – (Valve Related)	O No O Yes	mm / dd / yyyy
Readmission – (Heart failure) (Complete event info)	O No O Yes	mm / dd / yyyy
Reintervention – Tricuspid Valve (Complete event info)	O No O Yes	mm / dd / yyyy
Single leaflet device attachment	O No O Yes	mm / dd / yyyy
Stroke – Ischemic	O No O Yes	mm / dd / yyyy
Stroke – Hemorrhagic	O No O Yes	mm / dd / yyyy
Stroke – Undetermined	O No O Yes	mm / dd / yyyy
Transient Ischemic Attack (TIA)	O No O Yes	mm / dd / yyyy
Vascular Complication – Major	O No O Yes	mm / dd / yyyy
Vascular Complication – Minor	O No O Yes	mm / dd / yyyy
Vascular Surgery or Intervention – Unplanned	O No O Yes	mm / dd / yyyy

FOLLOW-UP EVENT INFORMATION (COMPLETE FOR EACH TV RE-INTERVENTION DURING FOLLOW-UP OR HEART FAILURE READMISSION)

Event[14385]**:** **Event Date**[14386]**:** mm / dd / yyyy

O Tricuspid Valve Re-intervention (follow-up)

Status[14387]**:** O Alive O Deceased →**If** Deceased, **Date of Death:**[14388]**:** mm / dd / yyyy

Clinical Comments[14463]**:**

→**IF EVENT**[14385] = TRICUSPID VALVE RE-INTERVENTION (FOLLOW-UP)

Tricuspid Valve Re-intervention Type[14408]**:** O Surgical Replacement O Surgical Repair O Transcatheter Replacement
O Balloon Valvuloplasty O Leaflet Clip Procedure O Paravalvular Leak Closure
O Other Transcatheter Intervention

TV Re-intervention Primary Indication[14409]**:**
O Regurgitation O Stenosis O Device Embolization O Device Fracture O Device Migration
O Endocarditis O Paravalvular Leak O Device Thrombosis O Valve Injury O Other

→**If** Regurgitation **TV Regurg**[14410]**:** O None O Trace/Trivial O Mild O Moderate O Severe