IMPACT Registry™

V3.0 Data Collection Form

Interventional Cardiology

NCDR®

AMERICAN COLLEGE of CARDIOLOGY®

Last edit: 9/30/2025

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NCDR

IMPACT Registry™

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: (Select 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

EPISODE OF CARE

Arrival Date/Time[3001]: mm / dd / yyyy HH:MM

Health Insurance[3005]: O No O Yes

→ **If** Yes, **Payment Source**[3010]: ☐ Private health insurance ☐ State-specific plan (non-Medicaid)
(Select all that apply) ☐ Medicare (Part A or B) ☐ Medicare Advantage (Part C) ☐ Medicaid
☐ Military health care ☐ Indian Health Service ☐ Non-US insurance

→ **If** any Medicare, **Medicare Beneficiary Identifier**[12846]: _____

Research Study[3020]: O No O Yes → **If** Yes, **Study Name**[3025] **, Patient ID**[3030] _____ , _____

IMPACT Pathway[15836]: ☐ Diagnostic or interventional catheterization ☐ Electrophysiology study with or without ablation
(Select all that apply) ☐ Cardiovascular implantable electronic device (CIED)

Primary Diagnosis[15835]: Select from dynamic list

HISTORY AND RISK FACTORS

Genetic Condition[15113]: O No O Yes

→ **If** Yes, **Condition Name**[15048]: Select all that apply from list

CONDITION HISTORY[12903]	OCCURRENCE[15510]	
Stroke	O No O Yes	
PROCEDURE HISTORY[12905]	**OCCURRENCE**[15511]	→ **IF** YES AND WITHIN 30 DAYS
Cardiac catheterization	O No O Yes	**Procedure**[15038]: _____ , _____ ☐ Procedure Not Documented[15856] (or beyond 30 days)
Cardiac surgery	O No O Yes	**Surgery**[15045]: _____ , _____ ☐ Surgery Not Documented[15857] (or beyond 30 days)

INFANTS (COMPLETE FOR PATIENTS LESS THAN 1 YEAR OLD)

Gestational Age >38 Weeks[15844]: O No O Yes

→If No, **Gestational Age**[15041]: _____ Weeks ☐ Gestational Age Not Documented[15846]

NEONATES (COMPLETE FOR PATIENTS AGE 30 DAYS OR YOUNGER ONLY)

Birth Weight[15040]: _____ O kg O g ☐ Not Documented[15845]

LAB VISIT (COMPLETE FOR EACH LAB VISIT)

Procedures Performed[15081]: (Select all that apply)

☐ Coarctation intervention ☐ Proximal pulmonary artery stenting ☐ Atrial septal defect closure
☐ Transcatheter pulmonary valve replacement ☐ Premature infant patent ductus arteriosus closure ☐ Aortic valvuloplasty
☐ Other non-module intervention (NMI) ☐ Diagnostic catheterization only

Procedure Room Entry Date/Time[15694]: 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**[15695]: MM / DD / YYYY HH:MM

Concurrent Conditions (Complete for Diagnostic or Interventional Catheterization Lab Visit)

Non-Cardiac Comorbidity[15885]:	O No	O Yes	(At the time of procedure)
Cardiac Comorbidity[15888]:	O No	O Yes	(At the time of procedure)
Arrhythmia[15883]:	O No	O Yes	(Within the last 90 days)
Cardiac Arrest[15966]:	O No	O Yes	(Within 48 hours)

Non-cardiac Comorbidity (Complete if Non-cardiac comorbidity[15885] = Yes)

Non-cardiac Comorbidity Name[15886]	Occurrence[15887]	Non-cardiac Comorbidity Name[15886]	Occurrence[15887]
Chronic lung disease	O No O Yes	End stage renal disease	O No O Yes
Congenital diaphragmatic hernia	O No O Yes	Seizure disorder	O No O Yes
Known airway problems	O No O Yes	Global developmental delay	O No O Yes
Diabetes mellitus	O No O Yes	Bleeding disorder	O No O Yes
Acute kidney injury	O No O Yes	Hypercoagulable state	O No O Yes
Chronic renal insufficiency	O No O Yes	Sickle cell anemia	O No O Yes

Cardiac Comorbidity (Complete if Cardiac comorbidity[15888] = Yes)

Cardiac Comorbidity Name[15889]	Occurrence[15890]	Cardiac Comorbidity Name[15889]	Occurrence[15890]
Single ventricle	O No O Yes	Pulmonary hypertension	O No O Yes
1.5 ventricle	O No O Yes	Rheumatic heart	O No O Yes
L-looped ventricles	O No O Yes	Kawasaki disease	O No O Yes
Dilated cardiomyopathy	O No O Yes	Ischemic cardiomyopathy	O No O Yes
Hypertrophic cardiomyopathy	O No O Yes	Heart failure	O No O Yes
Restrictive cardiomyopathy	O No O Yes		

Arrhythmia(s) (Complete if Arrhythmia[15883]= Yes)

→ **If** Yes, **Arrhythmia(s)**[15884]: (Select all that apply)

☐ Atrial fibrillation ☐ Atrial flutter ☐ Supraventricular tachycardia
☐ 1° heart block ☐ 2° heart block (Any) ☐ Complete heart block
☐ Sinus node dysfunction ☐ Ventricular tachycardia ☐ Wolff-Parkinson-White syndrome ☐ Other

Pre-Procedure (Complete for each lab visit)

Height[15020]: _____ O cm O in **Weight**[15021]: _____ O kg O g

Pre-Procedure Medications (Within the last two weeks)

Medications[15032]	Administered[6991]		Medications[15032]	Administered[6991]	
	No	Yes		No	Yes
Angiotensin converting enzyme-Inhibitor (Any)	O	O	Antiplatelet (Any)	O	O
Angiotensin II receptor blocker (Any)	O	O	Beta blockers (Any)	O	O
Antiarrhythmic (Any)	O	O	Diuretic (Any)	O	O
Anticoagulant – DOAC/NOAC	O	O	Pulmonary vasodilator (Any)	O	O
Anticoagulant - Warfarin	O	O	Prostaglandin Infusion	O	O

Pre-Procedure Diagnosis

Pre-Procedure Diagnosis Code(s)[15022]: _____, _____, _____

Procedure Information

Operator's Name, NPI[15073, 15074, 15072, 7115, 16237]: *Last, First, Middle, NPI* *Last, First, Middle, NPI* *Operator Role*

Fellow Operator Name, NPI, Fellowship Training Program[15431,15433,15434,15435,15436]: *Last, First, Middle, NPI*

Procedure Status[15071]: O Elective O Urgent O Emergent O Salvage

Visit Location[15855]: O Outpatient setting O Inpatient non critical care O Inpatient critical care

Patient Disposition[15080]: O Outpatient care O Admit to inpatient ward O Admit to inpatient ICU O Other

Anesthesia Type[15999]: O General anesthesia O Moderate sedation O Minimal sedation/anxiolysis/local only

→**If** General anesthesia, **Anesthesia Time**[16165]: _____ minutes ☐ Not Documented[16166]

→**If** General anesthesia, **Airway Management Method**[15940]: ☐ Mask ☐ Endotracheal intubation ☐ Laryngeal mask airway
(Select all that apply) ☐ Tracheostomy ☐ Previously intubated ☐ Not Documented[16241]

Access Location[15089]: (Select all that apply) ☐ Venous ☐ Arterial

Access Site[15853]: (Select all that apply) ☐ Brachial vein ☐ Femoral vein ☐ Hepatic vein ☐ Internal juglar vein ☐ Jugular vein
☐ Subclavian vein ☐ Transthoracic ☐ Umbilical vein ☐ Other vein ☐ Axillary artery ☐ Brachial artery
☐ Carotid artery ☐ Femoral artery ☐ Radial artery ☐ Umbilical artery ☐ Other artery

Systemic Heparinization[15102]: O No O Yes →**If** Yes, **ACT Peak**[15104]: _____ secs ☐ ACT not monitored[15851]

→**If** Yes and ACT Not Monitored[15851]= No, **ACT Below Target**[15850]: O No O Yes (Target as defined by the provider)

☐ ACT below target not documented[15854]

Transfusion[16130]: O No O Yes – Adverse event related O Yes – Not adverse event related

Echocardiography[16206]: O No O Yes – Intracardiac (ICE) O Yes – Transthoracic (TTE) O Yes – Transesophageal (TEE)

Mechanical Ventricular Support [7422]: O No O Yes → **If** Yes, **Device** [7423]: Select from dynamic list

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

Hemodynamics (Complete for Diagnostic or Interventional Catheterization)

Systemic Arterial Saturation[15125]: _____ % ☐ Not Assessed[15107]

Cardiac index[15136]: _____ L/min/m^2 ☐ Not Assessed[15123]

RVSP:Systemic SBP Ratio[15842]: _____ ☐ Not Assessed[15843]

Systemic Ventricular End Diastolic Pressure[15128]: _____ mmHg ☐ Not Assessed[15115]

Qp:Qs Ratio[15137]: _____ ☐ Not Assessed[15124]

Mixed Venous Saturation[15126]: _____ % ☐ Not Assessed[15108]

Pulmonary Vascular Resistance Index[15135]: _____ Wood units·m^2 ☐ Not Assessed[15122]

Pulmonary Artery Mean Pressure[15133]: _____ mmHg ☐ Not Assessed[15120]

Imaging, Radiation and Contrast

Contrast Volume[15838]: _____ mL ☐ Not Documented [15892]

X-Ray Imaging Used[15112]: O No O Yes - Single plane O Yes - Biplane O Yes - Rotational

Fluoroscopy Used[15837] O No O Yes

→**If** Yes, **Fluoroscopy Time**[7214]: _____ Minutes

→**If** Yes, **Cumulative Air Kerma**[15225]: _____ O mGy O Gy (Reference Air Kerma, Cumulative Dose, Reference Point Dose)

→**If** Yes, **Dose Area Product** [15226]: _____ O Gy·cm^2 O dGy·cm^2 O cGy·cm^2 O mGy·cm^2 O µGy·M^2

COARCTATION OF THE AORTA INTERVENTION (COMPLETE IF PROCEDURE PERFORMED[15081] = COARCTATION INTERVENTION)

Primary Procedure Indication[15255]: O Non-invasive gradient O Systemic hypertension O Exertional hypertension only
O Stenosis by imaging O Systolic ventricular dysfunction

Prior Intervention At Lesion Site[15869]: O No O Yes – Catheterization O Yes – Surgical O Yes – Both

PRE-INTERVENTION	POST-INTERVENTION
Peak Systolic Gradient[15263]: _____ mmHg	**Peak Systolic Gradient**[15267]: _____ mmHg
☐ Not Assessed[15264]	☐ Not Assessed[15268]
Minimal Lumen Diameter[15261]: _____ mm	**Minimal Lumen Diameter**[15265]: _____ mm
☐ Not Assessed[15262]	☐ Not Assessed[15266]
Distal Transverse Aortic Arch Diameter[15875]: _____ mm	**Gradient Attributable to Intervened Site**[15871] _____ mmHg
☐ Not Documented[15876]	☐ Not Documented[15872]

Balloon Dilation Only[15870]: O No O Yes

IF BALLOON DILATION ONLY (NO STENT IMPLANTATION) (BALLOON DILATION ONLY[15870] = YES)

Initial Balloon Diameter[15873]: _____ mm

Final Balloon Diameter[15874]: _____ mm

Waist On Any Balloon[15878]: O No O Yes

→**If** Yes, **Waist Resolved**[15879]: O No O Yes

STENT IMPLANTATION (BALLOON DILATION ONLY[15870] = NO)

Indication For Stent Placement[15858] (For the first stent) O Primary Therapy O Insufficient gradient relief after balloon dilation
O Treatment/stabilization of injury after balloon dilation

Balloon Diameter Immediately Preceding Stent Placement[15880]: _____ mm ☐ Not Assessed (Balloon not used)[15881]

Waist On Any Balloon[15859]: O No O Yes ☐ Not Assessed (Balloon not used)[15861]

→**If** Yes, **Waist Resolved**[15860]: O No O Yes

STENT COUNTER[15273]	**1**	**2** (Enter only the first two stents)
Stent[15274]	(dynamic list of stents)	(dynamic list of stents)
UDI[15864]	Future use	Future use
Length[15863]	_____ O mm O cm	_____ O mm O cm
Diameter[15882]	_____ O mm O cm	_____ O mm O cm
Stent Type Used[15862]	O Bare metal O Covered	O Bare metal O Covered
Implanting Balloon Diameter[15865]	_____ mm	_____ mm
Post Dilation[15866]:	O No O Yes	O No O Yes
→**If** Yes, **Post Dilation Balloon Diameter**[15867]:	_____ mm	_____ mm
Reason for Second Stent[15877]:		O Initial stent malposition O Initial stent too short O Initial stent recoil O Vascular Injury

PROXIMAL PULMONARY ARTERY STENTING (COMPLETE IF PROCEDURE PERFORMED[15081] = PULMONARY ARTERY STENTING) (EXCLUDE BILATERAL CASES)

Primary Procedure Indication[15227]: (Select all that apply)

- □ Angiographic narrowing
- □ PA pressure gradient > 20 mmHg
- □ Differential blood flow (<35% flow to lung of targeted vessel)
- □ Right ventricular hypertension
- □ Right ventricular dysfunction
- □ Pulmonary valve regurgitation

□ **Ostial Stenosis Present**[16132] (If checked, do not answer Proximal Diameter[15239/15247])

	Pre-intervention	Post-intervention
Proximal Diameter[15239/15247]:	_____ mm	_____ mm
Distal Diameter[15240/15248]:	_____ mm	_____ mm
Defect Diameter Minimum[15241/15250]:	_____ mm	_____ mm

STENT UTILIZATION	1	2 (Complete if a second stent was used)
Device Counter[15251]		
Stent(s)[15253]	(dynamic list of stents)	(dynamic list of stents)
UDI[15913]	Future use	Future use
Length[15911]	_____ O cm O mm	_____ O cm O mm
Diameter[15912]	_____ O cm O mm	_____ O cm O mm
Location[15229]	O L Proximal O R Proximal	
Successful treatment[15941]:	O No O Yes	
Stent Embolization[15942]:	O No O Yes	
Stent Malposition[15943]:	O No O Yes	
Stent Overhang (Compromising access to contralateral PA)[15914]	O No O Yes	
Jailed side-branch (with compromised flow)[15944]:	O No O Yes	

ATRIAL SEPTAL DEFECT CLOSURE (COMPLETE IF PROCEDURE PERFORMED[15081] = ATRIAL SEPTAL DEFECT CLOSURE)

Atrial Septal Defect (ASD) Classification[15893]: O ASD - Simple O ASD - Multiple
O ASD with pulmonary artery hypertension O ASD with pulmonary stenosis O ASD with congenital heart disease

Primary Procedure Indication[15141]: O Failure to thrive O Need for respiratory support O Recurrent respiratory infections
O Right-to-left cardiac shunt O Right ventricular volume overload (RVVO)

IMAGING INTRA-PROCEDURE (CODE BASED ON THE PRIMARY OR PREDOMINANT DEFECT)

ASD Dimension View 1[15900]: _____ mm ☐ Not documented[15901]

ASD Dimension View 2[15902]: _____ mm ☐ Not documented[15903]

Total Septal Length[15156]: _____ mm ☐ Not Assessed[15157]

Deficient Rim[15894]: O No O Yes

→**If** Yes, **Deficient Rim Length**[15895]: _____ mm ☐ Not documented[15898]

→**If** Yes, **Deficient Rim Location**[16133]: (Select all that apply) ☐ Retroaortic ☐ Superior Vena Cava ☐ Posterior ☐ Inferior

→**If** Yes, **2nd Deficient Rim**[15896]: O No O Yes

→**If** Yes, **2nd Deficient Rim Length**[15897]: _____ mm ☐ Not documented[15899]

Atrial Septal Aneurysm Present[15158]: O No O Yes

Balloon Sizing Performed[15162]: O No O Yes

→**If** Yes, **Method**[15908]: (Select all that apply) ☐ Waist ☐ Stop Flow

DEVICE UTILIZATION[14842]	1	2
Device(s)[15203]:	(Dynamic list of devices)	(Dynamic list of devices)
UDI (future use)[15910]:	_____	_____

2nd Device Indication[15909]: (Complete if second device is used, select all that apply) ☐ Change size ☐ Unanticipated device problem ☐ Other

PATIENT OUTCOME

Residual Shunt Size[15202]: O No shunt O Trivial shunt (<3 mm) O Significant shunt (>=3 mm)

AORTIC VALVULOPLASTY (COMPLETE IF PROCEDURE PERFORMED[15081] = AORTIC VALVULOPLASTY)

Primary Procedure Indication[15204]: O Abnormal stress test/ECG O Aortic valve gradient
O Left ventricular dysfunction O Symptoms

Aortic Valve Morphology[15209]: O Unicuspid O Bicuspid O Tricuspid O Quadricuspid O Uncertain

Aortic Valve Annulus Diameter[15212]: _____ mm

Measurements Pre-Dilation

Pre-Intervention Aortic Valve Regurgitation[15211]: O None O 1+ (mild) O 2+ (moderate) O 3+ (moderate to severe) O 4+ (severe)

Pre-Intervention Peak Aortic Valve Systolic Gradient[15224]: _____ mmHg ☐ Not documented[15840]

Measurements Post-Intervention

Post-Intervention Aortic Valve Regurgitation[15222]: O None O 1+ (mild) O 2+ (moderate) O 3+ (moderate to severe) O 4+ (severe)

Post-Intervention Peak Systolic Gradient[15223]: _____ mmHg ☐ Not documented[15841]

DEVICE UTILIZATION

Balloon Technique[15213]: O Single O Double **Balloon Diameter** (largest)[15839]: _____ mm

Balloon Stabilization[15219]: O No O Yes

PATENT DUCTUS ARTERIOSUS (PDA) CLOSURE (COMPLETE IF PROCEDURE PERFORMED[15081] = PREMATURE INFANT PDA CLOSURE)
(PREMATURE INFANT IS DEFINED AS 24-37 WEEKS PRE-TERM OR 700 – 2500 GRAMS)

RESPIRATORY STATUS

Respiratory Support[16131]: O No O Yes

→**If Yes, Respiratory Support Type**[15918]: O Continuous positive airway pressure (CPAP) O Conventional ventilation
O High-flow nasal cannula (HFNC) O High-frequency oscillatory ventilation (HFOV)
O Jet ventilation (JET) O Other

Mean Airway Pressure (MAP)[15928]: _____ cmH2O ☐ Not Assessed[15929]

Fraction of Inspired Oxygen (FiO2)[15926]: _____ % ☐ Not Assessed[15927]

Respiratory Severity Score[15921]: _____ ☐ Not Assessed[15922]

MEDICATION

Inotrope Administered[15105]: O No O Yes

INTRA-PROCEDURE

Procedure Location[12871]: O Cath lab O Bedside/NICU O Other

PDA Morphology[15285]: O Type - A O Type - B O Type - C O Type - D O Type - E O Type - F

Aortic Ampulla Dimension[15282]: _____ mm

Minimum Diameter[15283]: _____ mm

PDA Length[15284]: _____ mm

Measurement Technique[15930]: O Angiography O Echocardiography

Tricuspid Regurgitation (Pre-closure)[15924]: O None O Trace/Trivial O Mild O Moderate O Mod - severe O Severe

Ductal Angiography[15931]: O No O Yes

PDA Closure Device Counter[15965]	**1** (If more than one device is used, enter only the initial device and the final device)	**2**
Catheter Technique[15932]:	O Balloon endhole O Directional endhole with microcatheter, 0.014 wire O Directional endhole with 0.035 wire O Other	O Balloon endhole O Directional endhole with microcatheter, 0.014 wire O Directional endhole with 0.035 wire O Other
Device Used For Closure[15290]	Select from device list	Select from device list
UDI[15923]	(Future use)	(Future use)
Waist Diameter[15934]	_____ mm	_____ mm
Disc Diameter[15935]	_____ mm	_____ mm
Length[15936]	_____ mm	_____ mm
Implant Technique[15920]	O Antegrade (from venous access) O Retrograde (from arterial access)	O Antegrade (from venous access) O Retrograde (from arterial access)
Device Outcome[15291]:	O Device in place O Device removed by catheter O Intra-operative removal O Unknown	O Device in place O Device removed by catheter O Intra-operative removal O Unknown

OUTCOME

Post Procedure Obstruction[15933]: (Select all that apply) ☐ Aorta ☐ Pulmonary artery ☐ No obstruction ☐ Not Assessed[16242]

Tricuspid Valve Regurgitation (Post-closure)[15919]: O None O Trace/Trivial O Mild O Moderate O Mod-severe O Severe

Residual Shunt[15288]: O None O Trace/Trivial O Mild O Moderate O Severe

TRANSCATHETER PULMONARY VALVE REPLACEMENT (COMPLETE IF PROCEDURE PERFORMED[15081] = TRANSCATHETER PULMONARY VALVE REPLACEMENT)

Clinical Indication[15293] : (Select all that apply) ☐ Arrhythmia ☐ Symptomatic ☐ Ventricular function decline ☐ Right ventricle dilation

Hemodynamic Indication[15294]: O Predominant valve/conduit obstruction O Predominant valve/conduit regurgitation
O Mixed obstruction and regurgitation

Prior Right Ventricular Outflow tract (RVOT) Treatment[16154]: O Prior balloon angioplasty O Prior RVOT stent
O Prior transannular patch O Prior surgical valvotomy O Prior RV-PA conduit
O Prior surgical bioprosthesis O Prior TPVR O None

→**If** Prior Surgical Bioprosthesis, **Bioprosthesis Type**[16158]: ☐ Pulmonary homograft ☐ Aortic homograft ☐ Porcine ☐ Bovine
(Select all that apply) ☐ Synthetic ☐ Other

→**If** Prior Surgical Bioprosthesis, **Bioprosthesis Size**[15311]: _____ mm

TPVR - IMAGING PRE-PROCEDURE

Echocardiogram [15296]: O No O Yes

→**If** Yes, **LVEF**[15301]: _____% ☐ Not Assessed[16157]

→**If** Yes, **Mean Pulmonary Valve/Conduit Gradient**[15297]: _____ mmHg ☐ Not Assessed[16168]

→**If** Yes, **Maximum Pulmonary Valve/Conduit Gradient**[15298]: _____ mmHg ☐ Not Assessed[16145]

→**If** Yes, **Pulmonary Valve Regurgitation**[15299]: O None O Mild O Moderate O Mod-severe O Severe

→**If** Yes, **Tricuspid Valve Regurgitation**[15300]: O None O Mild O Moderate O Mod-severe O Severe

MRI [15302]: O No O Yes

→**If** Yes, **RVEF**[15303]: _____% ☐ Not Assessed[16147]

→**If** Yes, **PR Fraction**[15305]: _____% ☐ Not Assessed[16146]

→**If** Yes, **RVEDV Index**[15306]: _____ml/m^2 ☐ Not Assessed[16151]

VALVE/CONDUIT INTRA-PROCEDURE HEMODYNAMIC MEASUREMENTS

Peak Gradient Across Valve/Conduit[15314]: _____ mmHg ☐ Not Assessed[16163]

Narrowest Valve/Conduit Diameter[15315]: _____ mm ☐ Not Assessed[16164]

VALVE TYPE

Valve Type[16144]: O Balloon expandable O Self expanding

BALLOON EXPANDABLE VALVE (VALVE TYPE[16144] = BALLOON EXPANDABLE)

Coronary Compression Testing Performed[15318]: O No O Yes

→**If** Yes, **Coronary Compression Present**[15320]: O No O Yes O Uncertain

→**If** Yes, **Impact On Case**[16160]: O Valve not implanted O Implanted with technical modification

Pre-dilation Performed[15292]: O No O Yes

→**If** Yes, **First Balloon size**[15321]: _____ mm

→**If** Yes, **Maximum Balloon size**[15322]: _____ mm

TRANSCATHETER PULMONARY VALVE REPLACEMENT (CONT.)

TRANSCATHETER PULMONARY VALVE REPLACEMENT – DEVICE COUNTER[15339]

	TPVR Device(s)[15340]	Valve Diameter[16161]	Valve Stability[16162]	Implanted In Intended Location[16156]	UDI[16150]
1	_____	_____ mm	O Stable frame O Unstable frame	O No O Yes – Supra-annular implant O Yes – Annular implant	Future use
2	_____	_____ mm	O Stable frame O Unstable frame	O No O Yes – Supra-annular implant O Yes – Annular implant	Future use

VALVE DEPLOYED

Transcatheter Pulmonary Valve (TPV) Deployed[15331]: O No O Yes

→**If** Yes, **Post-implant Peak RVOT Gradient**[15335]: _____ mmHg ☐ Not Assessed[16152]

→**If** Yes, **Pulmonary Valve Central Regurgitation**[15336]: O None O Mild O Moderate O Mod-severe O Severe

→**If** Yes, **Perivalvular Pulmonary Regurgitation**[16159]: O None O Mild O Moderate O Mod-severe O Severe

→**If** No, **Reason TPV Not Deployed**[15338]:

O Coronary artery compression risk
O Valve could not be advanced to implant location
O Complication before deployment
O Pre-stent implanted, electively staged TPVR
O No treatable landing zone
O Other
O Device/Delivery system dysfunction/complication

VALVE DEPLOYED[15331] = YES AND VALVE TYPE[16144] = BALLOON EXPANDABLE VALVE

Delivery Balloon Size[15330]: _____ mm

TPVR – NON-INVASIVE IMAGING POST-PROCEDURE (TIMEFRAME: POST-PROCEDURE TO DISCHARGE)

Post-Procedure Echocardiogram[15342]: O No O Yes

→**If** Yes, **Maximum Gradient Across Valve/Conduit**[15344]: _____ mmHg ☐ Not Assessed[16149]

→**If** Yes, **Mean Gradient Across Valve/Conduit**[15343]: _____ mmHg ☐ Not Assessed[16148]

→**If** Yes, **Pulmonary Valve Central Regurgitation**[15345]: O None O Mild O Moderate O Mod-severe O Severe ☐ Not Assessed[16153]

→**If** Yes, **Perivalvular Regurgitation**[16219]: O None O Mild O Moderate O Mod-severe O Severe

NON-MODULE INTERVENTION (COMPLETE IF PROCEDURE PERFORMED[15081] = NON-MODULE INTERERVENTION)

NON-MODULE INTERVENTION COUNTER[16216]

	Specific Procedure(s) Performed[15067]	Counter[16287]	Device(s) Used[15937]	UDI[15938]
1	_____	1	_____	Future use
		2	_____	
		3	_____	
2	_____	1	_____	Future use
		2	_____	
		3	_____	

INTRA- AND POST-PROCEDURE EVENTS (COMPLETE FOR EACH LAB VISIT)

EVENT(S)[15153]	EVENT(S) OCCURRED[15207]		→ IF YES
Access site (At any access site selected Access Site[15853])			
Arteriovenous fistula requiring treatment	O No	O Yes	
Closure device related injury (access site)	O No	O Yes	
Hematoma at access site	O No	O Yes	
Pseudoaneurysm requiring treatment	O No	O Yes	
Pulse loss requiring treatment	O No	O Yes	
Rebleed after bandaging	O No	O Yes	
Sheath related intimal injury	O No	O Yes	
Thrombosis (at access site)	O No	O Yes	**Thrombosis Type**[15951]: (Select all that apply) ☐ Venous ☐ Arterial
Anesthesia			
Aspiration of gastric contents	O No	O Yes	
Broncho/laryngospasm while intubated	O No	O Yes	
Conscious sedation req. rescue intubation	O No	O Yes	
Corneal abrasion	O No	O Yes	
Delirium	O No	O Yes	
Dental injury	O No	O Yes	
Endotracheal tube malposition	O No	O Yes	
Lung collapse	O No	O Yes	
Malignant hyperthermia- hyperpyrexia	O No	O Yes	
Post extubation stridor	O No	O Yes	
Oral/airway Injury or bleeding	O No	O Yes	
Unanticipated difficult airway	O No	O Yes	
Unplanned extubation	O No	O Yes	
Angioplasty (Complete for angioplasty related events (Coarctation, Proximal pulmonary artery stenting, Aortic valvuloplasty, NMI))			
Aneurysm (angioplasty related)	O No	O Yes	
Contained tear req. treatment (angioplasty)	O No	O Yes	
Tear/dissection	O No	O Yes	**Flow Obstruction**[15952]: O No O Yes
Thrombosis (at target site)	O No	O Yes	
Angioplasty related vessel/conduit rupture	O No	O Yes	

INTRA AND POST-PROCEDURE EVENTS (COMPLETE FOR EACH LAB VISIT)

EVENT(S)[15153]	EVENT(S) OCCURRED[15207]	→ IF YES
Cardiac		
Arrhythmia requiring treatment (e.g. pharmacologic therapy, DCCV, temporary or permanent pacing)	O No O Yes	**Arrhythmia Type**[15949]: (Select all that apply) □ Atrial fibrillation □ Atrial flutter □ 1st degree AV block □ 2nd degree AV block □ 3rd degree AV block □ Bradycardia requiring intervention □ Persistent bundle branch block
Cardiac arrest	O No O Yes	**Cardiac Arrest Etiology**[15955]: (Select all that apply) □ Supraventricular tachycardia □ Ventricular fibrillation □ Ventricular tachycardia □ Complete heart block □ Pulseless Electric Activity (PEA) □ Acute hemorrhage □ Coronary ischemia □ Cardiac tamponade □ Progressive low cardiac output □ Pulmonary hypertensive crises □ Respiratory arrest □ Etiology unknown[16248]
Cardiac perforation	O No O Yes	**Biopsy Related**[15953]: O No O Yes
Cardiac tamponade	O No O Yes	
Coronary vasospasm requiring treatment	O No O Yes	
Mechanical circulatory support required	O No O Yes	
Pacemaker or ICD Implant Due to Cath Complication	O No O Yes	
Pericardial effusion	O No O Yes	
New Aortic valve insufficiency	O No O Yes	
New Tricuspid valve insufficiency	O No O Yes	**Biopsy Related**[15954]: O No O Yes
New Mitral valve insufficiency	O No O Yes	
New Pulmonary valve insufficiency	O No O Yes	
Coil or Device (Complete for cases involving coils or non-stent devices)		
Coil embolization	O No O Yes	**Coil Retrieved**[15956]: O No O Yes
Coil malposition	O No O Yes	
Device embolization	O No O Yes	**Device Retrieved**[15945]: O No O Yes
Device malposition	O No O Yes	**Blood Flow Obstruction**[15946]: O No O Yes

Intra and Post-Procedure Events (Complete for each lab visit)

Event(s)[15153]	Event(s) Occurred[15207]	→ If Yes
General		
Allergy – contrast	O No O Yes	
Allergy – medication	O No O Yes	
Air embolus in systemic circulation	O No O Yes	
Air embolus in venous/pulmonary circulation	O No O Yes	
Bacteremia (post-catheterization)	O No O Yes	
Complication of bladder catheterization	O No O Yes	
Fall	O No O Yes	
Gastrointestinal bleeding	O No O Yes	
Hypoglycemia	O No O Yes	
Hypothermia	O No O Yes	
Medication error	O No O Yes	
Necrotizing enterocolitis	O No O Yes	
New requirement for dialysis	O No O Yes	
Pressure injury	O No O Yes	
Post procedure fever > 38C	O No O Yes	
Radiation exposure injury	O No O Yes	
Retained foreign body	O No O Yes	
Retroperitoneal bleeding	O No O Yes	
Retroperitoneal hematoma	O No O Yes	
Skeletal trauma/injury	O No O Yes	
Transfusion reaction	O No O Yes	
Neurologic		
Brachial plexus injury	O No O Yes	
Seizures (new onset)	O No O Yes	
Spinal cord ischemia	O No O Yes	
Stroke	O No O Yes	**Stroke Type**[15947]**:** O Hemorrhagic O Ischemic O Undetermined
Transient ischemic attack	O No O Yes	
Pulmonary		
Hemothorax	O No O Yes	
Pneumonia	O No O Yes	
Pneumothorax	O No O Yes	
Pulmonary embolism	O No O Yes	
Pulmonary hemorrhage	O No O Yes	
Reperfusion injury	O No O Yes	

Intra and Post-Procedure Events (Complete for each lab visit)

Event(s)[15153]	Event(s) Occurred[15207]	→ If Yes
Stent		
Bronchial compression	O No O Yes	
Contained tear requiring treatment	O No O Yes	
Coronary compression	O No O Yes	
Jailing of side branch resulting in compromised flow	O No O Yes	
Stent malposition	O No O Yes	
Stent embolization	O No O Yes	
Stent thrombosis	O No O Yes	
Stent related vessel/conduit rupture	O No O Yes	
Vascular compression – other adjacent vessel	O No O Yes	
Vascular Injury		
Coronary artery dissection	O No O Yes	
Thrombus (Intervention site)	O No O Yes	**Intervention Site Thrombosis Type**[15948]: ☐ Venous ☐ Arterial (Select all that apply)
Vascular dissection (Vessel other than coronary artery)	O No O Yes	
Vascular perforation (Vessel other than coronary artery)	O No O Yes	

Post-Procedure Treatments (Complete for Diagnostic or Interventional Catheterization)

Intra- or Post-Procedure Treatment[15171]	Occurred[15208]	→If Yes
Cardiac surgery – Planned	O No O Yes	
Cardiac surgery – Unplanned due to cath complication	O No O Yes	
Subsequent cardiac cath due to cath complication	O No O Yes	
Vascular surgery – Unplanned due to cath complication	O No O Yes	
Other surgery - Unplanned	O No O Yes	**Due to Cath Complication**[15172]: O No O Yes

Discharge

Discharge Date/Time[10101] MM / DD / YYYY HH:MM

Discharge Status[10105]: O Alive O Deceased

→ **If** Deceased, **Death in Lab** [10120]: O No O Yes

→ **If** Deceased, **Cause of Death**[10125]: O Cardiac O Non-Cardiac O Undetermined