



AHA - Cardiogenic Shock (CRF)

February 2024

Patient ID:			
DEMOGRAPHICS			
Sex	☐ Male	☐ Female	☐ Unknown
Patient Gender Identity	☐ Male ☐ Female ☐ Female-to-Male (FTM)/Transgender Male/Trans Man ☐ Male-to-Female (MTF)/Transgender Female/Trans Woman ☐ Genderqueer, neither exclusively male nor female ☐ Additional gender category or other. _____ ☐ Did not disclose.		
Patient-Identified Sexual Orientation	☐ Straight or heterosexual ☐ Lesbian or gay ☐ Bisexual ☐ Queer, pansexual, and/or questioning ☐ Something else; please specify: _____ ☐ Don't know ☐ Declined to answer		
Date of Birth	____/____/____ MM DD YYYY		
Age	_____		
Patient Postal Code	_____		☐ Homeless
Payment Source	☐ Medicare ☐ Medicaid ☐ Medicare – Private/HMO/PPO/Other ☐ Medicaid – Private/HMO/PPO/Other ☐ Private/HMO/PPO/Other ☐ VA/CHAMPVA/Tricare ☐ Self-pay/No Insurance ☐ Other/Not Documented/UTD		
Race and Ethnicity			
Race	☐ American Indian or Alaska Native ☐ Asian ☐ Asian Indian ☐ Chinese ☐ Filipino ☐ Japanese ☐ Korean ☐ Vietnamese ☐ Other Asian ☐ Black or African American ☐ Native Hawaiian or Pacific Islander ☐ Native Hawaiian ☐ Guamanian or Chamorro ☐ Samoan ☐ Other Pacific Islander ☐ White ☐ UTD		
Hispanic Ethnicity	☐ Yes ☐ No/UTD		
If yes,	☐ Mexican, Mexican American, Chicano/a ☐ Puerto Rican ☐ Cuban ☐ Another Hispanic, Latino, or Spanish Origin		
ADMISSION			
Arrival Date/Time	____/____/____ ____:____ MM DD YYYY HH : MM		
Point of Origin for Admission	☐ Home ☐ Transfer from a Hospital (Different Facility) ☐ Clinic ☐ Transfer from another Health Care Facility ☐ Non-Healthcare Facility Point of Origin ☐ Transfer from Hospice and is Under a Hospice Plan of Care or Enrolled in a Hospice Program		

	☐ Transfer from a Skilled Nursing Facility (SNF) or Intermediate Care Facility (ICF) ☐ Information not available
Referring Hospital	
Referring hospital arrival date/time:	____/____/____ ____:____ MM DD YYYY HH : MM
Referring hospital discharge date/time	____/____/____ ____:____ MM DD YYYY HH : MM
Initial point of hospital arrival	☐ Emergency Department ☐ Direct to inpatient unit- ICU ☐ Direct to inpatient unit- Non- ICU ☐ Cath Lab/Operating Room ☐ Other
Medical History	
Medical History (Select all that apply):	
☐ None ☐ Atrial fibrillation or flutter ☐ Cardiac amyloidosis ☐ Chronic pulmonary disease ☐ Diabetes Mellitus ☐ Heart Failure- Reduced EF ☐ Ischemic Cardiomyopathy ☐ Non-ischemic Cardiomyopathy ☐ History of heart transplantation ☐ Presence of durable left ventricular assist device (LVAD) ☐ Presence of implantable cardioverter defibrillator (ICD) ☐ Presence of biventricular pacemaker (CRT) ☐ Hypertension ☐ Isolated right ventricular failure ☐ Smoking / Vaping ☐ Cigarette use ☐ E-cigarette use ☐ Vaping ☐ Unknown / Unable to Determine ☐ Atherosclerotic vascular disease ☐ Cerebrovascular disease (including previous TA/CVA) ☐ Coronary Artery Disease (CAD) ☐ Peripheral Arterial Disease ☐ Prior CABG ☐ Prior MI ☐ Prior PCI ☐ Chronic Kidney Disease ☐ Chronic hemodialysis ☐ Chronic liver disease ☐ Congenital Heart Disease ☐ Emerging Infectious Disease ☐ MERS ☐ SARS-COV-1 ☐ SARS-COV-2 (COVID-19) ☐ Other infectious respiratory pathogen ☐ Heart Failure – Preserved EF ☐ Hypertrophic cardiomyopathy ☐ Pulmonary hypertension ☐ Valvular heart disease	
Medications at Hospital Admission	
Medications Used Prior to Admission: <i>[Select all that apply]</i>	
☐ No medications prior to admission ☐ Angiotensin Receptor Blocker (ARB) ☐ Anticoagulation Therapy ☐ Direct oral anticoagulant ☐ Warfarin ☐ Other ☐ Antiplatelet medications ☐ ACE Inhibitor ☐ Angiotensin Receptor Neprilysin Inhibitor (ARNI) ☐ Anti-hyperglycemic medications ☐ Insulin ☐ Oral ☐ Beta – Blocker	

☐ Aspirin ☐ P2Y12 Inhibitors ☐ Other Antiplatelet		☐ Home IV Inotropes ☐ Mineralocorticoid Receptor Antagonist (MRA) ☐ Unknown / Unable to Determine	
☐ GLP-1 agonist ☐ Loop Diuretic ☐ SGLT2 Inhibitor			
Exams/Labs at Admission			
Date/Time of vital signs		____/____/____ ____:____ MM/DD/YYYY HH:MM ☐ Unknown	
Initial Vital signs	Height - Admission	____ ☐ inches ☐ cm ☐ Not Documented	
	Weight - Admission	____ ☐ Lbs. ☐ Kgs. ☐ Not Documented	
	BMI - Admission	____ (Automatically Calculated)	
	BSA - Admission	____ (Automatically Calculated)	
	Heart Rate - Admission	____ bpm ☐ Not Documented	
	BP - Admission	____ / ____ mmHg (systolic/diastolic) ☐ Not Documented	
	Temperature - Admission	____ ☐ C ☐ F ☐ Not Documented	
Admission Labs	Lactate - Admission	____ (mmol/L) ☐ Unavailable	
	Hgb - Admission	____ ☐ g/dL ☐ g/L ☐ Unavailable	
	NT-proBNP - Admission	____ ☐ pg/mL ☐ ng/L ☐ Unavailable	
	BNP - Admission	____ ☐ pg/mL ☐ pmol/L ☐ ng/L ☐ Unavailable	
	Serum Creatinine - Admission	____ ☐ mg/dL ☐ micromol/L ☐ Unavailable	
	ALT (IU/L) - Admission	____ ☐ Unavailable	
	Platelet Count (mm ³) - Admission	____ ☐ Unavailable	
	Troponin - Admission	____ ☐ ng/L ☐ ng/mL ☐ ug/L ☐ Troponin Unavailable - Admission ☐ Troponin below limit of detection - Admission	
	Random Blood Glucose - Admission	____ (mg/dL) ☐ Unavailable	
	Most favorable neurological status at admission	☐ Conscious without severe disability ☐ Conscious with severe disability ☐ Comatose ☐ Unable to assess due to sedation ☐ Unknown/Not Documented	
SHOCK ONSET			
Certainty of shock etiology	☐ Cardiogenic shock was a clear contributor to the shock state ☐ Cardiogenic shock was a suspected but with some uncertainty		
Where was the onset of Cardiogenic Shock present?	☐ Shock present on participating hospital arrival ☐ Shock onset while in-hospital		

	☐ Shock onset at referring hospital	
Cardiac arrest prior to shock onset?	☐ Yes ☐ No ☐ Unknown/Not Documented	
[IF YOU ANSWERED 'YES' TO THE QUESTION ABOVE] Most favorable neurological status after the arrest and <u>prior to hospital discharge</u>	☐ Conscious without severe disability ☐ Conscious with severe disability ☐ Comatose ☐ Unable to assess due to sedation ☐ Unknown/Not Documented	
Onset of shock (Date/Time):	____/____/____ ____:____ MM/DD/YYYY HH:MM	☐ Unknown
Was a multidisciplinary shock team involved in patient management?	☐ Yes ☐ No ☐ Not documented	
If multidisciplinary shock team was involved, select the timeframe	☐ Within 3hrs of shock onset ☐ Within 6hrs of shock onset ☐ Within 24hrs of shock onset ☐ >24hrs of shock onset ☐ Unknown/not documented	
SCAI Shock Stage at Onset (first 6hrs)	☐ Deceased ☐ Stage B ☐ Stage C ☐ Stage D ☐ Stage E ☐ ND/Unable to Determine	
SCAI Shock Stage Serial assessment (Assessed at 6h-12h)	☐ Deceased ☐ Stage B ☐ Stage C ☐ Stage D ☐ Stage E ☐ ND/Unable to Determine	
Signs and Symptoms of Inadequate Perfusion Present?	☐ Yes ☐ No	
Presenting Physiology	☐ Biventricular Failure ☐ Left Ventricular Failure ☐ Right Ventricular Failure ☐ Primary Other Cardiac (Arrhythmia, Valvular Stenosis, etc.) ☐ Not Documented	
Cardiogenic shock category	☐ Acute, de novo HF ☐ Acute-on-chronic HF ☐ Unable to determine	
Etiologies and Contributors to Cardiogenic Shock:	☐ None of the causes below ☐ ACS/AMI ☐ STEMI ☐ NSTEMI ☐ COVID-19 related complication ☐ LVAD complication ☐ Myocarditis ☐ Post-cardiac arrest ☐ Takotsubo cardiomyopathy ☐ Valvular dysfunction ☐ Unknown ☐ Acute Transplant Rejection ☐ Arrhythmia ☐ Bradyarrhythmia ☐ Tachyarrhythmia ☐ Isolated Right Heart Failure ☐ Acute PE ☐ Pulmonary HTN ☐ Other Isolated Right Heart Failure ☐ Mechanical complication of MI ☐ Peripartum ☐ Post-cardiopulmonary bypass ☐ Tamponade ☐ Other (Specify) _____	
Medications at Shock Onset		
Medications administered at onset of shock (<i>Select all that apply</i>)	☐ No Medications administered at onset of shock ☐ Anticoagulation Therapy ☐ Vasoactive Medications (IV Continuous, during first 6 hours after shock onset) ☐ Dobutamine ☐ Dopamine ☐ Epinephrine	

		☐ Direct oral anticoagulant ☐ Warfarin ☐ IV heparin ☐ Other ☐ Antiplatelet Medication: ☐ Aspirin ☐ P2Y12 Inhibitors ☐ Other Antiplatelet	☐ Levosimendan ☐ Milrinone ☐ Nitroprusside ☐ Norepinephrine ☐ Phenylephrine ☐ Vasopressin ☐ Not Documented
Exams/Labs at Shock Onset			
Enter parameters closest to shock onset. (To be entered only if shock onset was after arrival)			
Date/Time of vital signs (closest to shock onset)		___/___/___ :__	☐ Not Documented
Vital signs (closest to shock onset)	Height	___ inches ☐ cm	☐ Not Documented
	Weight	___ lbs ☐ kg	☐ Not Documented
	BMI	___ (Automatically Calculated)	
	BSA	___ (Automatically Calculated)	
	Heart Rate	___ bpm	☐ Not Documented
	BP	___/___ mmHg (systolic/diastolic)	☐ Not Documented
	Temperature	___ °C ☐ °F	☐ Not Documented
Labs (Closest to shock onset)	Lactate	___ (mmol/L)	☐ Unavailable
	Hgb	___ ☐ g/dL ☐ m g/L	☐ Unavailable
	NT-proBNP	___ ☐ m pg/mL ☐ m ng/L	☐ Unavailable
	BNP	___ ☐ pg/mL ☐ pmol/L ☐ ng/L	☐ Unavailable
	SCr	___ ☐ mg/dL ☐ µmol/L	☐ Unavailable
	ALT	___ ☐ IU/L	☐ Unavailable
	Platelet Count	___ (mm ³)	☐ Unavailable
	Troponin (Peak related to shock onset)	___ ☐ ng/mL ☐ ug/L ☐ ng/L	☐ Unavailable ☐ Below limit of detection
	Random Blood Glucose	___ (mg/dL)	☐ Unavailable
TRANSFER TAB			
Assessment From Transferring Facility			
Date/Time of Assessment - Transfer	___/___/___ :__ ☐ Unknown/Not Documented MM/DD/YYYY HH:MM		
Presence of a Pulmonary Artery Catheter (PAC)	☐ Yes ☐ No		
Presence of Mechanical Ventilation	☐ Yes ☐ No		
Presence of renal replacement therapy	☐ Yes ☐ No		
For the measurements elements below, enter accurate parameters closest to assessment time			
BP: (Systolic/Diastolic)	___/___ mm/Hg ☐ Not Documented		

Heart Rate	<u> </u> bpm	☐ Not Documented
CVP/RA	<u> </u> mmHg	☐ Not Documented
Pa Pressure (Systolic/Diastolic)	<u> </u> / <u> </u> mmHg	☐ Not Documented
PCWP	<u> </u> mmHg	☐ Not Documented
Cardiac Output	<u> </u> L/min	☐ Not Documented
MAP (Auto-calculated)	<u> </u> mmHg	☐ Not Documented
PAPi (Auto-calculated)	<u> </u> w	☐ Not Documented
CPO (Auto-calculated)	<u> </u> w	☐ Not Documented
Peak Lactate prior to transfer	<u> </u> mmol/L	☐ Not Documented
Lowest pH prior to transfer	<u> </u>	☐ Not Documented
Peak ALT prior to transfer	<u> </u> IU/L	☐ Not Documented
Vasoactive Medications at time of assessment	☐ None ☐ Dobutamine ☐ Dopamine ☐ Epinephrine ☐ Levosimendan ☐ Milrinone	☐ Nitroprusside ☐ Norepinephrine ☐ Phenylephrine ☐ Vasopressin ☐ Not Documented ☐ Other (Specify): <u> </u>

Presence of MCS Device(s) at assessment	☐ None ☐ Impella ☐ Impella 2.5 ☐ Impella CP ☐ Impella ECP ☐ Impella 5.0 ☐ Impella 5.5 ☐ Impella RP ☐ VA Ecmo ☐ IABP	☐ IVAC ☐ TandemHeart ☐ Left ☐ Right ☐ Temporary surgical VAD (e.g. CentriMag) ☐ Left ☐ Right ☐ Implanted surgical assist device ☐ Pulsatile-Flow Devices ☐ Continuous-Flow Devices ☐ Other (Specify): _____
Vascular Complication requiring intervention:	☐ Yes	☐ No
Date/Time of vascular complication requiring intervention	____/____/____ ____:____ MM/DD/YYYY HH:MM	☐ Not Documented
Other complications of ECMO	☐ Pulmonary hemorrhage requiring intervention ☐ Refractory pulmonary edema ☐ Other (specify): _____	

IN-HOSPITAL CARE

Cardiovascular Procedures During this Hospitalization

☐ No Procedures ☐ Cardiac Cath/Coronary Angiography ☐ Cardiac Transplantation Date/Time of transplantation: ____/____/____ ____:____ ☐ Coronary Artery Bypass Graft (CABG) Date/Time of CABG: ____/____/____ ____:____ ☐ Electrophysiology (EP) procedure Date/Time of EP: ____/____/____ ____:____ ☐ Percutaneous Cardiac Intervention (PCI) Date/Time of PCI: ____/____/____ ____:____ ☐ Pulmonary embolectomy (surgical or transcatheter) ☐ Targeted temperature management ☐ Other Procedures/Advanced therapies (Specify): _____	☐ Mechanical Circulatory Support Device/VAD Date/Time of FIRST MCS: ____/____/____ ____:____ Percutaneous Assist Devices ☐ IABP ☐ Impella ☐ TandemHeart ☐ VA ECMO ☐ iVAC ☐ Other VAD Surgical Assist Devices ☐ Temporary external device (e.g. CentriMag) ☐ Implanted surgical assist device ☐ Continuous-Flow Devices ☐ Pulsatile-Flow Devices Date/Time of implantation: ____/____/____ ____:____
Was a right heart catheterization or pulmonary artery catheterization performed?	☐ Yes ☐ No ☐ Unknown/Not Documented
Date/time of <u>first</u> RHC/PAC	____/____/____ ____:____ MM/DD/YYYY ☐ Unknown HH:MM
Was the PA catheter used for a period of hemodynamic monitoring outside the Cath Lab/OR?	☐ Yes ☐ No ☐ Unknown/Not Documented
Was the patient managed with invasive mechanical ventilation at any time during the hospitalization?	☐ Yes ☐ No ☐ Unknown/Not Documented

Primary indication for advanced respiratory therapy	☐ Airway protection only (other than cardiac arrest) ☐ Cardiac arrest without respiratory failure ☐ Chronic dependence on mechanical ventilation ☐ Procedural sedation / anesthesia and recovery ☐ Respiratory insufficiency ☐ Other	
Date/Time of first intubation related to this hospitalization	__/__/____ __:____ MM/DD/ YYYY HH:MM	☐ Unknown
Extubation?	☐ Yes ☐ No	
Date/Time of extubation	__/__/____ __:____ MM/DD/ YYYY HH:MM	☐ Unknown
Was patient managed with renal replacement therapy at any time during the hospitalization?	☐ Yes ☐ No ☐ Unknown/Not Documented	
If Yes, Select type of renal replacement therapy used	☐ Accelerated venovenous hemofiltration (AVVH) ☐ Continuous venovenous hemofiltration (CVVH) ☐ Emergent or urgent hemodialysis ☐ Routine hemodialysis for patient with end-stage renal dialysis (ESRD) ☐ Unknown/Not Documented	
Primary Indications for advanced renal therapy (Select all that apply)	☐ Acidemia ☐ Hyperkalemia ☐ Severe uremia ☐ Volume overload causing hemodynamic or respiratory compromise ☐ Volume overload in the absence of any of the above ☐ Other (specify) _____ ☐ Unknown/Not Documented	
Data for Patient transferred to ICU from any other floor in the hospital		
Was the patient admitted to ICU at any point during this hospitalization?	☐ Yes	☐ No
ICU Admission Date/Time	__/__/____ __:____ MM/DD/ YYYY HH:MM	☐ Unknown
ICU discharge (transfer out) Date/Time	__/__/____ __:____ MM/DD/ YYYY HH:MM	☐ Unknown
Number of days patient was in ICU (<i>auto-calc.</i>)	_____	
Clinical Outcomes		
Record the Time/Date of the <u>FIRST</u> event of each type		
Severe/Moderate GUSTO bleeding event:	☐ Yes ☐ No	
Date/Time GUSTO detected:	__/__/____ __:____ MM/DD/ YYYY HH:MM	☐ Not Documented
Intracranial Hemorrhage	☐ Yes ☐ No	
Date/Time Intracranial Hemorrhage detected	__/__/____ __:____ MM/DD/ YYYY HH:MM	☐ Not Documented
Cardiac Arrest	☐ Yes ☐ No	
Date/Time Cardiac Arrest detected	__/__/____ __:____ MM/DD/ YYYY HH:MM	☐ Not Documented
Stroke	☐ Yes ☐ No	

Date/Time Stroke detected	___/___/___ ___:___ MM/DD/YYYY HH:MM	☐ Not Documented
Complications from procedures during this admission:	☐ No complications from procedures ☐ Acute Limb ischemia ☐ Amputation ☐ Fasciotomy ☐ Arterial non-CNS thrombosis ☐ Bleeding – Vascular access site – MCS-Related	☐ Bleeding – Vascular access site – Other access site ☐ Bleeding – Other site ☐ Cardiac tamponade ☐ Vascular injury (any) ☐ Venous thromboembolism ☐ Other (Specify): _____
MECHANICAL CIRCULATORY SUPPORT FORM		
Section to be completed for each device implanted		
Implanted Device – VA ECMO	☐ ECMO (VA)	
Date/Time of Implant Procedure – VA ECMO	___/___/___ ___:___ (MM/DD/YYYY HH:MM)	☐ Unknown/ND
Died with implant in place – VA ECMO	☐ Yes ☐ No	
Device explant date/Time VA ECMO:	___/___/___ ___:___ (MM/DD/YYYY HH:MM)	
Arterial Implant Site – VA ECMO:	☐ Right ☐ Right – Axillary ☐ Right – Femoral ☐ Left ☐ Left – Axillary ☐ Left – Femoral ☐ Central	
Venous Implant Site – VA ECMO:	☐ Right ☐ Right – Axillary ☐ Right – Femoral ☐ Left ☐ Left – Axillary ☐ Left – Femoral ☐ Central	
Receiving CPR at time of Implant – VA ECMO	☐ Yes ☐ No ☐ Unknown/ND	
Reason for device implant – VA ECMO (Select all that apply)	☐ Critical Left Main/Severe CAD ☐ Incessant Arrhythmia ☐ Refractory Ischemia ☐ Shock ☐ Severe Heart Failure without Shock ☐ Severe Valvular Dysfunction ☐ Supported PCI ☐ Ventricular Septal Defect ☐ Left-ventricular venting during VA-ECMO ☐ Other reason for device implant (Specify): _____	
Vascular closure applied – VA ECMO:	☐ Collagen-based plug with MANTA ☐ Dry-based ☐ Manuel compression (Femostop) ☐ Planned open surgical repair ☐ Suture-based (Proglide, Prostar XL) ☐ Other (Specify): _____	

Implanted Device – IABP	☐ IABP		
	☐ 25 cc	☐ 30 cc	☐ 34 cc ☐ 40 cc ☐ 50 cc
Date/Time of Implant Procedure – IABP	__/__/____ __:__ (MM/DD/YYYY HH:MM)		☐ Unknown
Died with implant in place – IABP	☐ Yes ☐ No		
Device explant date/Time IABP:	__/__/____ __:__ (MM/DD/YYYY HH:MM)		
Arterial Implant Site – IABP:	☐ Right ☐ Right – Axillary ☐ Right – Femoral ☐ Left ☐ Left – Axillary ☐ Left – Femoral ☐ Central		
Receiving CPR at time of Implant – IABP	☐ Yes	☐ No	☐ Unknown/ND
Reason for device implant – IABP (Select all that apply)	☐ Critical Left Main/Severe CAD ☐ Incessant Arrhythmia ☐ Refractory Ischemia ☐ Shock ☐ Severe Heart Failure without Shock ☐ Severe Valvular Dysfunction ☐ Supported PCI ☐ Ventricular Septal Defect ☐ Left-ventricular venting during VA-ECMO ☐ Other reason for device implant (Specify): _____		
Vascular closure applied – IABP:	☐ Collagen-based plug with MANTA ☐ Dry-based ☐ Manuel compression (Femostop) ☐ Planned open surgical repair ☐ Suture-based (Proglide, Prostar XL) ☐ Other (Specify):_____		
Implanted Device – Impella	☐ Impella		
	☐ Impella 2.5 ☐ Impella CP ☐ Impella ECP	☐ Impella 5.0 ☐ Impella 5.5 ☐ Impella RP	
Date/Time of Implant Procedure – Impella	__/__/____ __:__ (MM/DD/YYYY HH:MM)		☐ Unknown
Died with implant in place – Impella	☐ Yes ☐ No		
Device explant date/Time Impella:	__/__/____ __:__ (MM/DD/YYYY HH:MM)		
Arterial Implant Site – Impella:	☐ Right ☐ Right – Axillary ☐ Right – Femoral ☐ Left ☐ Left – Axillary ☐ Left – Femoral ☐ Central		
Receiving CPR at time of Implant – Impella	☐ Yes	☐ No	☐ Unknown/ND
Reason for device implant – Impella (Select all that apply)	☐ Critical Left Main/Severe CAD ☐ Incessant Arrhythmia ☐ Refractory Ischemia		

	☐ Shock ☐ Severe Heart Failure without Shock ☐ Severe Valvular Dysfunction ☐ Supported PCI ☐ Ventricular Septal Defect ☐ Left-ventricular venting during VA-ECMO ☐ Other reason for device implant (Specify): _____
Vascular closure applied – Impella:	☐ Collagen-based plug with MANTA ☐ Dry-based ☐ Manuel compression (Femostop) ☐ Planned open surgical repair ☐ Suture-based (Proglide, Prostar XL) ☐ Other (Specify):_____
Implanted Device – iVAC	☐ iVAC
Date/Time of Implant Procedure – iVAC	__/__/____ __:__ (MM/DD/YYYY HH:MM) ☐ Unknown
Died with implant in place – iVAC	☐ Yes ☐ No
Device explant date/Time iVAC:	__/__/____ __:__ (MM/DD/YYYY HH:MM)
Arterial Implant Site – iVAC:	☐ Right ☐ Right – Axillary ☐ Right – Femoral ☐ Left ☐ Left – Axillary ☐ Left – Femoral ☐ Central
Venous Implant Site – iVAC:	☐ Right ☐ Right – Axillary ☐ Right – Femoral ☐ Left ☐ Left – Axillary ☐ Left – Femoral ☐ Central
Receiving CPR at time of Implant – iVAC	☐ Yes ☐ No ☐ Unknown/ND
Reason for device implant – iVAC (Select all that apply)	☐ Critical Left Main/Severe CAD ☐ Incessant Arrhythmia ☐ Refractory Ischemia ☐ Shock ☐ Severe Heart Failure without Shock ☐ Severe Valvular Dysfunction ☐ Supported PCI ☐ Ventricular Septal Defect ☐ Left-ventricular venting during VA-ECMO ☐ Other reason for device implant (Specify): _____
Vascular closure applied – iVAC:	☐ Collagen-based plug with MANTA ☐ Dry-based ☐ Manuel compression (Femostop) ☐ Planned open surgical repair ☐ Suture-based (Proglide, Prostar XL) ☐ Other (Specify):_____
Implanted Device – TandemHeart	☐ TandemHeart

Date/Time of Implant Procedure – TandemHeart	__/__/____ __:__ (MM/DD/YYYY HH:MM) ☐ Unknown
Died with implant in place – TandemHeart	☐ Yes ☐ No
Device explant date/Time TandemHeart:	__/__/____ __:__ (MM/DD/YYYY HH:MM)
Arterial Implant Site – TandemHeart:	☐ Right ☐ Right – Axillary ☐ Right – Femoral ☐ Left ☐ Left – Axillary ☐ Left – Femoral ☐ Central
Venous Implant Site – TandemHeart:	☐ Right ☐ Right – Axillary ☐ Right – Femoral ☐ Right – Jugular ☐ Left ☐ Left – Axillary ☐ Left – Femoral ☐ Left – Jugular ☐ Central
Receiving CPR at time of Implant – TandemHeart	☐ Yes ☐ No ☐ Unknown/ND
Reason for device implant – Tandemheart (Select all that apply)	☐ Critical Left Main/Severe CAD ☐ Incessant Arrhythmia ☐ Refractory Ischemia ☐ Shock ☐ Severe Heart Failure without Shock ☐ Severe Valvular Dysfunction ☐ Supported PCI ☐ Ventricular Septal Defect ☐ Left-ventricular venting during VA-ECMO ☐ Other reason for device implant (Specify): _____
Vascular closure applied – TandemHeart:	☐ Collagen-based plug with MANTA ☐ Dry-based ☐ Manuel compression (Femostop) ☐ Planned open surgical repair ☐ Suture-based (Proglide, Prostar XL) ☐ Other (Specify): _____
Implanted Device – Temporary surgical VAD (e.g. CentriMag)	☐ Temporary surgical VAD ☐ Temporary surgical VAD – Left ☐ Temporary surgical VAD – Right
Date/Time of Implant Procedure – Temporary surgical VAD (e.g. CentriMag)	__/__/____ __:__ (MM/DD/YYYY HH:MM) ☐ Unknown
Died with implant in place – Temporary surgical VAD (e.g. CentriMag)	☐ Yes ☐ No
Device explant date/Time – Temporary surgical VAD (e.g. CentriMag):	__/__/____ __:__ (MM/DD/YYYY HH:MM)

Arterial Implant Site - Temporary surgical VAD (e.g. CentriMag):	☐ Right ☐ Right - Axillary ☐ Right - Femoral ☐ Left ☐ Left - Axillary ☐ Left - Femoral ☐ Central		
Receiving CPR at time of Implant - Temporary surgical VAD (e.g. CentriMag)	☐ Yes	☐ No	☐ Unknown/ND
Reason for device implant - Temporary surgical VAD (e.g. CentriMag) (Select all that apply)	☐ Critical Left Main/Severe CAD ☐ Incessant Arrhythmia ☐ Refractory Ischemia ☐ Shock ☐ Severe Heart Failure without Shock ☐ Severe Valvular Dysfunction ☐ Supported PCI ☐ Ventricular Septal Defect ☐ Left-ventricular venting during VA-ECMO ☐ Other reason for device implant (Specify): _____		
Vascular closure applied - Temporary surgical VAD (e.g. CentriMag):	☐ Collagen-based plug with MANTA ☐ Dry-based ☐ Manuel compression (Femostop) ☐ Planned open surgical repair ☐ Suture-based (Proglide, Prostar XL) ☐ Other (Specify):_____		
Implanted Device - Other	☐ Other Device		
Specify other device:	_____		
Date/Time of Implant Procedure - Other	__/__/____ __:__ (MM/DD/YYYY HH:MM)		☐ Unknown
Died with implant in place - Other	☐ Yes ☐ No		
Device explant date/Time Other:	__/__/____ __:__ (MM/DD/YYYY HH:MM)		
Arterial Implant Site - Other:	☐ Right ☐ Right - Axillary ☐ Right - Femoral ☐ Left ☐ Left - Axillary ☐ Left - Femoral ☐ Central		
Venous Implant Site - Other:	☐ Right ☐ Right - Axillary ☐ Right - Femoral ☐ Left ☐ Left - Axillary ☐ Left - Femoral ☐ Central		
Receiving CPR at time of Implant - Other	☐ Yes	☐ No	☐ Unknown/ND
Reason for device implant - Other (Select all that apply)	☐ Critical Left Main/Severe CAD ☐ Incessant Arrhythmia ☐ Refractory Ischemia ☐ Shock		

	☐ Severe Heart Failure without Shock ☐ Severe Valvular Dysfunction ☐ Supported PCI ☐ Ventricular Septal Defect ☐ Left-ventricular venting during VA-ECMO ☐ Other reason for device implant (Specify): _____			
Vascular closure applied – Other:	☐ Collagen-based plug with MANTA ☐ Dry-based ☐ Manuel compression (Femostop) ☐ Planned open surgical repair ☐ Suture-based (Proglide, Prostar XL) ☐ Other (Specify):_____			
ECMO TAB				
Pre-ECMO Events				
Select any current device(s) supporting patient pre-ECMO <i>[Device(s) already selected from the MCS tab will be auto-populated here]</i>	☐ None ☐ Intra-Aortic Balloon Pump (IABP) ☐ Impella (any) ☐ Tandem Heart ☐ Left ☐ Right ☐ Temporary surgical VAD (e.g. CentriMag) ☐ Left ☐ Right ☐ Other (Specify): _____			
Circumstances of ECMO Cannulation (select all that apply):	☐ Planned for patient deterioration (Prophylactic) ☐ Emergent (ECPR or Salvage) ☐ Failure to Wean from CPB ☐ Progression of Illness Despite Established VAD/ Temporary Mechanical Circulatory Support / IABP			
GCS Score (if assessed immediately pre-ECMO)	_____ ☐ GCS not assessed			
Is there an ELSO record for this patient?	☐ Yes ☐ No ☐ Unknown/Not Documented			
If yes, enter ELSO Patient Record Number (optional)	_____			
Vascular Access & Initiation of ECMO				
Date/Time ECMO started	____/____/____:____ ☐ Unknown			
Cannulation anatomical site (check all that apply) <i>[repeat for each cannula placed]</i>	Cannulation anatomical Site	Cannula size (Fr)	Cannula manufacturer	Cannula Model
	☐ Right internal jugular vein			
	☐ Right Femoral Artery			
	☐ Left Femoral Artery			
	☐ Right Femoral Vein			
	☐ Left Femoral Vein			
	☐ Other (Specify):_____			
	☐ Aorta (Central)			
	☐ Right Atrium (Central)			
	☐ Left Atrium (Central)			
☐ Pulmonary Artery (Central)				

	☐ Unknown/Not Documented		
Type of cannulation	☐ Central	☐ Peripheral	☐ Unknown/Not Documented
Purpose	☐ Central	☐ Peripheral	☐ Unknown/Not Documented
Date/Time of insertion	__/__/______:__ MM DD YYYY HH : MM		☐ Unknown
Was this cannula removed for a reason other than death?	☐ Yes	☐ No	☐ Not Documented
Date/Time of removal	__/__/______:__ MM DD YYYY HH : MM		☐ Unknown
LV Decompression			
LV Decompression Procedures (select all that apply) and date/time of procedure, if known:	☐ None/Not Performed		
	☐ Atrial Septostomy	Date/Time: __/__/______:__	
	☐ LA Vent	Date/Time: __/__/______:__	
	☐ LV Vent	Date/Time: __/__/______:__	
	☐ PA Vent	Date/Time: __/__/______:__	
	☐ Intra-Aortic Balloon Pump	Date/Time: __/__/______:__	
	☐ Transaortic Valve Impella	Date/Time: __/__/______:__	
	☐ L-VAD	Date/Time: __/__/______:__	
	☐ R-VAD	Date/Time: __/__/______:__	
	☐ Other (Specify): _____	Date/Time: __/__/______:__	
Rationale for Decompression on ECLS (select one):	☐ Decreased pulse pressure on Arterial Waveform ☐ Evidence of Ischemia ☐ Institutional routine ☐ Lack of native ejection ☐ Progressive Pulmonary Edema on CXR ☐ Other (Specify): _____		
ECMO Cannulation Location (area)			
ECMO Cannulation Location:	☐ Another hospital (pre-transfer) ☐ Ambulatory/Outpatient Area ☐ Adult cardiac ICU (CICU) ☐ Adult general ICU ☐ Cardiac Catheterization Lab ☐ Delivery Suite ☐ Diagnostic/Intervention. Area (excluding Cath Lab) ☐ Emergency Department (ED) ☐ Operating Room (OR) ☐ Post-Anesthesia Recovery Unit (PACU) ☐ Same-day Surgical Area ☐ Telemetry unit or Step-down unit ☐ Other (Specify) _____ ☐ Unknown/Not Documented		
Team Member(s) Performing ECMO Cannulation:	☐ Anesthesiologist ☐ ER Physician ☐ Intensive care physician ☐ Interventional Cardiologist ☐ Perfusionist ☐ Registered Nurse (RN) ☐ Surgeon (cardiac/cardiothoracic) ☐ Other (Specify) _____ ☐ Unknown/Not Documented		
ECMO Circuit and Components			
Pump	Manufacturer: _____		
	Pump Name: _____		

Common device used (e.g., Cardiohelp)	☐ Yes ☐ No ☐ Unknown / Not Documented		
Console/Drive unit Manufacturer / Name:			
Oxygenator Manufacturer / Name			
Safety features incorporated in the ECMO circuit for this event	☐ Bridge ☐ Transonic flow meter ☐ Bubble detectors ☐ Venous bladder and pump ☐ O2 saturation monitor controller ☐ Pressure alarms ☐ Other (Specify): _____		
Was any component exchanged or replaced?	☐ Yes ☐ No ☐ Unknown/ Not Documented		
Component Exchanged	☐ Console ☐ Oxygenator ☐ Heat Exchanger ☐ Other (Specify): _____		
Reason(s) for exchange			
Date/time of exchange	____/____/____ : ____ MM DD YYYY HH : MM		
Additional exchange(s)	If applicable, multiple instances of Component Exchanged/Replaced repeat group can be added to the form		
Component Exchanged #2	☐ Console ☐ Oxygenator ☐ Heat Exchanger ☐ Other (Specify): _____		
Exchange #2 reason			
Date/Time of exchange #2	____/____/____ : ____ MM DD YYYY HH : MM		
Neurologic injury or events detected during ECMO or after ECMO (Less than 6 weeks after separation from ECMO or by Hospital Discharge, which ever one comes first). (check all that apply):			
☐ No Neurological injury or events detected during ECMO or after ECMO			
Anoxic Brain Injury	☐ Yes ☐ No	Date/Time detected: ____/____/____ : ____	
Brain death	☐ Yes ☐ No	Date/Time detected: ____/____/____ : ____	
Cerebral Microbleeds	☐ Yes ☐ No	Date/Time detected: ____/____/____ : ____	
New clinical seizure(s)	☐ Yes ☐ No	Date/Time detected: ____/____/____ : ____	
Spinal cord ischemia	☐ Yes ☐ No	Date/Time detected: ____/____/____ : ____	
Other Complications/Events <i>[Relevant options already captured will be auto-populated]</i>			
Device-Related Events	☐ None ☐ Oxygenator failure ☐ Tubing rupture ☐ Air embolism ☐ Pump failure ☐ Other (Specify): _____ ☐ Circuit clots		
Other ECMO complications/events	☐ None ☐ Left ventricular ☐ Pulmonary edema ☐ Differential distention ☐ Other (Specify): _____ ☐ hypoxia (Harlequin ☐ Pulmonary syndrome) hemorrhage		
Outcomes /End of Event			
Date/Time ECMO ended	____/____/____ : ____ ☐ Unknown/Not Documented MM DD YYYY HH : MM		
SAVE (Survival After Veno- Arterial ECMO) Score	_____ ☐ Not Documented		

Reason(s) ECMO ended	☐ Converted to other support ☐ ECMO complication ☐ Limited resources ☐ Patient (or family) refused treatment ☐ Patient recovered/improved	☐ Significant deterioration ☐ Transition to surgical LVAD ☐ Transplant (Heart/Lung) ☐ Patient died ☐ Other (specify): _____ ☐ Unknown
SERIAL SHOCK ASSESSMENT		
Select if serial assessments were NOT performed	☐	
Date/Time of Assessment – Serial Assessment	___/___/___ :___ (MM/DD/YYYY HH:MM)	☐ Unknown
Hours since Shock Onset – Serial Assessment	_____	
SCAI Stage:	☐ Shock has resolved ☐ Stage B ☐ Stage C	☐ Stage D ☐ Stage E ☐ ND/Unable to Determine
Presence of a Pulmonary Artery Catheter (PAC)	☐ Yes ☐ No	
Presence of Mechanical Ventilation	☐ Yes ☐ No	
Presence of renal replacement therapy	☐ Yes ☐ No	
For the measurement elements below, enter accurate parameters closest to assessment time		
BP: (Systolic/Diastolic)	___ / ___ mmHg	☐ Not Documented
Heart Rate	_____ bpm	☐ Not Documented
CVP/RA	_____ mmHg	☐ Not Documented
Pa Pressure (Systolic/Diastolic)	___ / ___ mm/Hg	☐ Not Documented
PCWP	_____ mmHg	☐ Not Documented
Cardiac Output	_____ L/min	☐ Not Documented
MAP (Auto-calculated)	_____ mmHg	☐ Not Documented
PAPi (Auto-calculated)	_____ w	☐ Not Documented
CPO (Auto-calculated)	_____	☐ Not Documented
Peak Lactate since the last assessment	_____ mmol/L	☐ Not Documented
Lowest pH since last assessment	_____	☐ Not Documented
Peak ALT since last assessment	_____ IU/L	☐ Not Documented
Vasoactive Medications at time of assessment	☐ None ☐ Dobutamine ☐ Dopamine ☐ Epinephrine ☐ Levosimendan ☐ Milrinone ☐ Nitroprusside ☐ Norepinephrine ☐ Phenylephrine ☐ Vasopressin ☐ Not Documented ☐ Other Vasoactive Medication (Specify): _____	

Presence of MCS Device(s) at assessment	☐ None ☐ Impella ○ Impella 2.5 ○ Impella CP ○ Impella ECP ○ Impella 5.0 ○ Impella 5.5 ○ Impella RP ☐ VA ECMO ☐ IABP ☐ TandemHeart ○ TandemHeart – Left ○ TandemHeart – Right	☐ Temporary Surgical VAD (e.g. CentriMag) ○ Temporary surgical VAD – Left ○ Temporary surgical VAD – Right ☐ Implanted surgical assist device ○ Pulsatile-Flow Devices ○ Continuous- Flow Devices ☐ Other MCS
Was there a device upgrade/escalation since the prior assessment?	☐ Yes	☐ No
Select reason(s) for device upgrade or escalation since the prior assessment	☐ None/Not Documented ☐ Device- related complication of failure ☐ Inadequate response to vasoactive medications	☐ Need for escalation to greater hemodynamic support from MCS ☐ Switch to alternative MCS access site (e.g. fem to axillary)
Was there a device de-escalation since the prior assessment?	☐ Yes	☐ No
Select reason(s) for device upgrade or escalation since the prior assessment	☐ Change in goals of care ☐ Durable LVAD or heart transplant	☐ MCS no longer needed ☐ Transition to central cannulated device
Vascular complication requiring intervention?	☐ Yes	☐ No
Date/Time of vascular intervention:	____/____/____ ____:____ ☐ (MM/DD/YYYY HH:MM)	☐ Unknown
Other complications of ECMO	☐ Pulmonary hemorrhage requiring intervention ☐ Refractory pulmonary edema	☐ Other (Specify):
DISCHARGE INFORMATION		
Discharge disposition	☐ Home ☐ Hospice – Home ☐ Hospice – Health Care Facility ☐ Acute Care Facility ☐ Other Health Care Facility	☐ Expired ☐ Left Against Medical Advise (AMA) ☐ Not documented or Unable to Determine (UTD)
Date/Time of Discharge from hospital:	____/____/____ ____:____ (MM/DD/YYYY HH:MM)	☐ Unknown
Most favorable neurological status at discharge	☐ Conscious without severe disability ☐ Conscious with severe disability ☐ Comatose ☐ Unable to assess due to sedation ☐ Unknown/Not Documented	

If patient died, Date/Time of death	____/____/____ ____:____ (MM/DD/YYYY HH:MM)		☐ Not Documented
Primary cause of death	☐ Cardiovascular ☐ Non-Cardiovascular ☐ Unknown		
If Cardiovascular:	☐ Acute Coronary Syndrome ☐ Cardiogenic Shock/HF ☐ Stroke	☐ Sudden Cardiac Death ☐ Other Cardiovascular ☐ Unknown Cardiovascular	
If Non-Cardiovascular	☐ Anoxic brain injury	☐ Other non-cardiovascular	
If Other Health Care Facility:	☐ Skilled Nursing Facility (SNF) ☐ Inpatient Rehabilitation Facility (IRF)	☐ Long Term Care Hospital (LTCH) ☐ Intermediate Care Facility (ICF) ☐ Other	
Transferred to:			
Reason for Transfer	☐ Administrative ☐ De-escalation of care ☐ Escalation of care	☐ Need for transplant services ☐ Patient / Family Request ☐ Other	
Social Determinants of Health			
During this admission, was a standardized health related social needs form or assessment completed?	☐ Yes ☐ No/Not Documented		
If yes, identify the areas of unmet social need. (select all that apply):	☐ None of the areas of unmet social need listed ☐ Education ☐ Employment ☐ Financial Strain ☐ Food ☐ Living Situation/Housing ☐ Mental Health ☐ Personal Safety ☐ Substance Abuse ☐ Transportation Barriers ☐ Utilities		
END OF FORM			