9. American Society of ExtraCorporeal Technology. Standards and Guidelines for Mechanical Circulatory Support. Standard 2: Qualifications, Competency, Education and Proficiency MCS Devices are implantable, paracorporeal, and percutaneous univentricular and biventricular devices used as acute or chronic support for assisting or replacing the failing heart. Examples include intra-aortic balloon pumps, ventricular assist devices (VADs), and total artificial hearts (TAH). Do not include documentation for heart-lung machines including cardiopulmonary bypass (CPB).
Appendix A

Patient information

- Medical Record Number
- Patient Surname, first name
- Demographics
  - Age (DOB)
  - Gender
  - Height
  - Weight
  - Body surface Area (BSA)
- Blood Type
- Laboratory Data
  - Hemoglobin/Hematocrit
  - Predicted Hematocrit on Bypass
  - White Blood Cell Count
  - Platelet Count
  - aPTT
  - Na
  - K+
  - BUN/CR
  - Glucose
  - Patient Allergies
  - Planned Procedure

Information sufficient to accurately describe the procedure, personnel, and equipment

- Date of Procedure
- Type of Procedure
- Perfusionist(s) Name
  - Detail to clearly demonstrate the Perfusionist in charge of the case at all times.
- Surgeon(s) Name
- Anesthesiologist(s) Name
- Nurse(s) name
- Operating Room Number
- Equipment, as applicable (must be uniquely identified)
  - Heart Lung Machine
  - Cell Salvage (autotransfusion) Device
  - Heater/Cooler
- Disposables, as applicable (Manufacturer, model, serial and/or lot numbers should be documented)
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- Oxygenator
- Cardiotomy reservoir
- Tubing pack/Arterial line filter
- Centrifugal pump head
- Cardioplegia Delivery System
- Cell Salvage (autotransfusion)
- Ultrafiltration Device
- Arterial Cannula
- Venous Cannula
- Cardioplegia Cannula
- Sump/vent(s)

Patient physiological and Perfusionist practice parameters

- Blood Flow Rates (RPM)
- Arterial Blood Pressure
- Arterial Line Pressure
- Central Venous/Pulmonary Artery Pressure
- Vacuum Assist Venous Return (VAVR)
  - VAVR pressure
  - Venous Inlet Pressure (VIP)
- Arterial/Venous Blood Gases
- Venous Oxygen Saturation
- Patient Temperatures, including:
  - Patient core (at least one)
  - Nasopharyngeal
  - Bladder
  - Esophageal
  - Rectal
  - Tympanic
- CPB temperatures:
  - Venous return blood
  - Arterial blood inflow
- Oxygenator gases including gas flow rate and concentration(s)
- Input fluid volumes including:
  - Prime
  - Blood Products
  - Asanguineous Fluids
  - Cardioplegic Solution
  - Autologous Components
- Cardioplegia
  - Solution (ratio)
  - Route
  - Flow
  - Pressure
  - Temperature
  - Volume
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- Output Fluid Volumes, including:
  - Urine output
  - Ultrafiltrate
  - Medications and/or inhalational anesthetic agents administered via extracorporeal circuit.

Blood gas, electrolyte and anticoagulation monitoring results
- Blood gases
  - pO2
  - pCO2
  - pH
  - Base excess
  - Bicarbonate concentration
  - Saturation
  - Potassium concentration
  - Ionized calcium concentration
  - Sodium concentration
  - Lactate
  - Glucose
  - Hemoglobin/hematocrit

- Activated Clotting Times (ACT) and/or Heparin/Protamine Assay Results and/or Thromboelastography Results
AmSECT Pillar Award Renewal Application

- Output Fluid Volumes, including:
  - Urine output
  - Ultrafiltrate
- Medications and/or inhalational anesthetic agents administered via extracorporeal circuit.

Blood gas, electrolyte and anticoagulation monitoring results

- Blood gases
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