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| **Supplementary Table S1: List of Postoperative Complications** |
| **Sentinel Serious Adverse Events*** Acute shunt failure requiring intervention
* Cardiac arrest requiring CPR and medications
* Cardiopulmonary insufficiency requiring ECMO
* Cardiovascular reoperation (unplanned)
* Necrotizing enterocolitis requiring laparotomy

**Cardiac** *Arrhythmia* (requiring medication or treatment)* + - Atrial fibrillation
		- Atrial flutter
		- Supraventricular tachycardia
		- Junctional ectopic tachycardia
		- Sinus node dysfunction (requiring pacing)
		- Atrioventicular block (second or third degree)
		- Ventricular tachycardia
		- Ventricular fibrillation

*Mediastinum** + - Hemopericardium (requiring intervention, includes postoperative mediastinal hemorrhage)
		- Pericardial effusion (requiring drainage)
		- Postpericardiotomy syndrome (requiring treatment)

*Cardiac Performance** + - Hypotension (<40 mm Hg for neonates;<50 mm Hg after stage II surgery)
		- Hypertension (requiring long-term therapy, i.e., >30 days after discharge, therapy should be at therapeutic doses and specifically prescribed for the treatment of hypertension)
		- RV dysfunction (requiring escalation or initiation of therapy, not to include immediate postoperative dysfunction routinely associated with cardiopulmonary bypass)
		- Semilunar valve insufficiency or stenosis (requiring treatment initiation or escalation)
		- Atrioventricular valve insufficiency or stenosis (requiring treatment initiation or escalation)
		- Prosthetic valve dysfunction

*Great Vessels** + - Superior vena cava stenosis (anatomic, symptomatic, “superior vena cava syndrome”)
		- Superior vena cava occlusion
		- Inferior vena cava occlusion
		- Other cardiovascular

**Vascular*** Thrombus/thromboembolism
* Vascular, other

**Respiratory*** Chronic respiratory failure (intubated for > 2 weeks after surgery
* Chylothorax (postoperative accumulation of chylous fluid in the pleural space requiring intervention whether by evacuation, dietary change, and/or medical treatment)
* Hemothorax (requiring drainage)
* Phrenic nerve injury/diaphragmatic paralysis (newly elevated diaphragm on chest x-ray film
* Pleural effusion (requiring drainage > 7 days after surgery, other)
* Pneumothorax (requiring tube insertion)
* Tracheal injury
* Vocal cord injury (direct visualization)
* Airway obstruction (requiring a significant intervention)
* Hypoxia (requiring readmission or escalation of care)
* Other respiratory
 | **Neurologic*** Choreoathetosis/posturing (moderate involuntary movements interfering with function)
* Coma
* Intracranial bleeding (confirmed by imaging)
* Seizure(s) (confirmed by electroencephalogram or obvious motor signs)
* Stroke (confirmed by imaging study)
* Hydrocephalus (report if CTCAE grade > 2)
* Neurologic deficit persisting at discharge not attributed to any of the above diagnoses
* Other neurologic

**Gastrointestinal*** Direct bilirubin > 4 µmol/L
* Liver failure (AST, ALT, or GGT > 500 U/L)
* Necrotizing enterocolitis, confirmed (pneumatosis or free air)
* Necrotizing enterocolitis, suspected (NPO, antibiotics started)
* Other esophageal or bowel perforations not associated with necrotizing enterocolitis
* Upper gastrointestinal bleed, requiring treatment
* Stricture/stenosis (CTCAE > grade 2)
* Other gastrointestinal

**Infectious*** Empyema
* Endocarditis
* Gastroenteritis or enteritis
* Line infection, bacterial (positive blood cultures)
* Line infection, fungal (positive blood cultures with initiation of therapy)
* Pneumonia, respiratory infection, viral (requiring the initiation of therapy)
* Mediastinitis/wound infection, deep (requiring incision and drainage; sternal instability)
* Wound infection, superficial (erythema, possible tissue separation and drainage)
* Sepsis, confirmed (positive blood cultures, not line infection)
* Sepsis, clinical with negative cultures
* Urinary tract infection
* Other infection

**Renal*** Acute renal failure (creatinine > 1.5 mg/dL (133 µmol/L) or tripling of baseline value for < 7 days; temporary dialysis)
* Chronic renal failure (creatinine > 1.5 mg/dL (133 µmol/L) or tripling of baseline value for > 7 days; long-term dialysis)
* Other renal

**Hematologic*** Anemia (hemoglobin < 10 gm/L)
* Thrombocytopenia (platelets < 50 × 109/L)
* Hematoma (CTCAE grade > 2)
* Hemorrhage, gastrointestinal (CTCAE grade > 2; hemepositive stools)
* Hemorrhage, genitourinary (CTCAE grade > 2)
* Hemorrhage, pulmonary/upper respiratory (CTCAE grade > 2)
* Other hematologic

**Other Complications*** Other

*CPR - cardiopulmonary resuscitation, ECMO – extracorporeal membrane oxygenation RV - Right ventricular, CTCAE - Common Terminology Criteria for Adverse Events, AST - aspartate aminotransferase, ALT - alanine aminotransferase, GGT - gammaglutamyl transferase, NPO - nothing by mouth.* |