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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.* |