Physician Orders PEDIATRIC: LEB VAD Cardiovascular Surgery Post Op Plan

Initiate Orders Phase
Care Sets/Protocols/PowerPlans

☑ Initiate Powerplan Phase

Phase: LEB VAD Cardiovascular Surgery Post Op Phase, When to Initiate:____________________

LEB VAD Cardiovascular Surgery Post Op Plan
Admission/Transfer/Discharge

☐ Transfer Pt within current facility

Level of Care: Critical Care, To CVICU

Vital Signs

☐ Vital Signs w/Neuro Checks

Monitor and Record T,P,R,BP, q15min, x 2h or until stable, then q1h

Activity

☐ Bedrest

Food/Nutrition

☐ NPO

Start at: T

Patient Care

☐ Advance Diet As Tolerated

Advance diet as tolerated after extubation

☐ Isolation Precautions

☐ Intake and Output

Routine, q1h(std)

☐ Daily Weights

Routine, qEve

☐ NIRS Monitor

Monitor: Cerebral and Somatic

☐ Cardiopulmonary Monitor

Routine, Monitor Type: CP Monitor

☐ Discontinue CP Monitor

When ALL Criteria met: No NG-Tube, No PCA, No Chest Tube, No Sepsis Alert notified, PEWS of 0 and 24 hour post op.

☐ Elevate Head Of Bed

☐ Mouth Care

q4h(std), with Toothette oral swabs, use colostrum, if available.

☐ Suction Patient

pm, PRN, oro/nasopharyngeal once extubated.

☐ Replogle (NGT)

☐ NG Tube Type: Replogle, Suction Strength: To Gravity (DEF)*

☐ NG Tube Type: Replogle, Suction Strength: Low Intermittent

☐ Chest Tube Care
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☐ To Suction At: -20cm (DEF)*
☐ To Suction At: -30cm
☐ q1h(std), strip to maintain patency q1h and PRN

☐ Drain Care
   empty blake/JP drains q1h
☐ Drain Care
   PD drain to gravity.
☐ Indwelling Urinary Catheter Care
   indwelling urinary catheter to gravity.
☐ Whole Blood Glucose Nsg
   Routine, q1h(std)
☐ Whole Blood Glucose Nsg
   prn, PRN
☐ Antiseptic Patch Apply
   T;N, if child is greater than 1000 grams, apply Biopatch to central line dressing site immediately postoperatively.

☐ Dressing Care
   Routine, Action: Change, QWeek, CVL dressing (DEF)*
   Routine, Action: Change, prn, PRN, occlusive dry dressings to incision sites and drain sites, if soiled or becomes non-occlusive.

☐ VAD Dressing Care
   Action: Change, per VAD protocol
☐ Temporary Pacemaker Critical Care
   Special Instructions: Atrial wires in situ
☐ Temporary Pacemaker Critical Care
   Special Instructions: Ventricle wires in situ
☐ Initiate Post Op Pulmonary Hypertension Protocol
☐ VAD Communication
   T;N, Draw ACT PCT (RT Collect) from patient for baseline, then draw q1h and PRN (for changes in patient status) from ECMO circuit.
☐ VAD Communication
   T;N, Each shift verify that 1 unit PRBC’s is available in the blood bank
☐ VAD Communication
   T;N, VAD goal parameters: CVP: < ___ or > ___ , MAP: < ___ or > ___ , SBP: < ___ or > ___ , Fluid Balance: < ___ or > ___ , HR: < ___ or > ___ , O2 Sat: < ___ or > ___ , Temp: < ___ or > ___ , Hgb: < ___ or > ___ , pH: < ___ or > ___

Nursing Communication
☐ Nursing Communication
   T;N, Volume: Place order to administer FFP's, _____mL over 1 hour if mean arterial pressure less than _____ and central venous pressure less than _____ and HCT greater than ______.
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☐ Nursing Communication
  T;N, Volume: Place order to administer PRBC’s _____mL over 1 hour for mean arterial pressure less than_____ and central venous pressure less than____ and HCT less than ______.

☐ Nursing Communication
  T;N, Place order to administer PRBC’s _____mL over 1 hour for if HCT less than ______.

☐ Nursing Communication
  T;N, Goal mean arterial pressure ___ to ___ mmHg

Respiratory Care

☐ LEB Critical Care Respiratory Plan(SUB)*

☐ Oxygen Delivery
  Special Instructions: Titrate to keep O2 sat at _____ to _____%  

☐ ISTAT POC (RT Collect)
  T;N Stat, Test Select ABG | Electrolytes | Lactate, Special Instructions: Collect upon arrival to unit

☐ ISTAT POC (RT Collect)
  T;N+60 Stat q1h For 2 occurrence, Test Select ABG | Electrolytes | Lactate

☐ ISTAT POC (RT Collect)
  T;N+240 Stat q2h For 2 occurrence, Test Select ABG | Electrolytes | Lactate

☐ ISTAT POC (RT Collect)
  T;N+600 Stat q4h, Test Select ABG | Electrolytes | Lactate

☐ ACT Point of Care (RT Collect)
  Stat

☐ Co-oximetry (RT Collect)
  Routine q12h(std)

☐ Nitric Oxide (RT)
  20 ppm, per iNO protocol

Continuous Infusion

☐ D5 1/4 NS
  500 mL, IV, Routine, mL/hr, Max rate 40mL/hr

☐ D5 1/2NS
  500 mL, IV, mL/hr, Max rate 40mL/hr

☐ D10 1/4 NS (Pediatric) (IVS)*
  Dextrose 10% in Water
  250 mL, IV, Routine, mL/hr, Max rate 40mL/hr
  sodium chloride 9.6 mEq

☐ D5W
  500 mL, IV, Routine, 1 mL/hr
  Comments: To be administered via one of the following: _____ CVP Line ______ LAP Line ______ PAP Line

☐ Sodium Chloride 0.9% Bolus
  mL, Injection, IV, once, STAT, (infuse over 15 min), (Bolus)
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- albumin, human 5% Bolus
  *mL, Injection, IV, once, STAT, (infuse over 30 min), (Bolus)*

**Vasoactive Medications**

- EPINEPHrine Drip (Pediatric) (IVS)*  
  Dextrose 5% in Water  
  95 mL, IV, Routine, Reference Range: 0.01 to 0.2 mcg/kg/min  
  Comments: Reference Range: 0.01 to 0.2 mcg/kg/min  
  EPINEPHrine (additive)  
  5 mg, 0.1 mcg/kg/min

- NORepinephrine Drip (Pediatric) (IVS)*  
  Dextrose 5% in Water  
  96 mL, IV, Routine, Reference Range: 0.01 to 0.2 mcg/kg/min  
  norepinephrine  
  4 mg, 0.1 mcg/kg/min

- DOBUTamine Drip (Pediatric) (IVS)*  
  Diluent volume  
  250 mL, IV, Routine, Reference Range: 2 to 20 mcg/kg/min  
  DOBUTamine  
  500 mg, 10 mcg/kg/min

- Milrinone Drip (Pediatric) (IVS)*  
  Diluent volume  
  100 mL, IV, Routine, 0.25 to 1 mcg/kg/min  
  milrinone (additive)  
  20 mg, 0.5 mcg/kg/min

- Nitroglycerin Drip (Pediatric) (IVS)*  
  Diluent volume  
  250 mL, IV, Routine, Reference Range: 1 to 4 mcg/kg/min  
  nitroglycerin (additive) pediatric  
  100 mg, 1 mcg/kg/min

- NitroPRUSSIDE Drip (Pediatric) (IVS)*  
  Dextrose 5% in Water  
  98 mL, IV, Routine, Reference Range: 0.25 to 4 mcg/kg/min  
  nitroprusside  
  50 mg, 1 mcg/kg/min

- NiCARdipine Drip (Pediatric) (IVS)*  
  Diluent volume  
  200 mL, IV, Routine  
  niCARdipine (additive)  
  40 mg, 1 mcg/kg/min

**Electrolytes**

- Calcium Chloride Drip (Pediatric) (IVS)*  
  Dextrose 5% in Water  
  30 mL, IV, Routine, Reference Range: 2 to 10 mg/kg/hr
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calcium chloride (additive)
2,000 mg, 5 mg/kg/hr

Diuretics
☐ Lasix Drip (Pediatric) (IVS)*
  Dextrose 5% in Water
  30 mL, IV, Routine, Reference Range: 2.5 to 10 mg/kg/day
  furosemide (additive) pediatric
  100 mg, 5 mg/kg/day

☐ Bumex Drip (Pediatric) (IVS)*
  Dextrose 5% in Water
  30 mL, IV, Routine, 2.5 to 10 mcg/kg/hr
  bumetanide (additive)
  2.5 mg, 4 mcg/kg/hr

Anticoagulants
☐ Heparin Drip (Pediatric) (IVS)*
  Diluent volume
  heparin (additive)
  25,000 units

Sedatives
☐ FentaNYL Drip (Pediatric) (IVS)*
  Dextrose 5% in Water
  15 mL, IV, Routine
  fentanyl (additive)
  500 mcg, 1 mcg/kg/hr

☐ MorPHINE Drip (Pediatric) (IVS)*
  Dextrose 5% in Water
  49.5 mL, IV, Routine
  morPHINE (additive)
  5 mg, 0.05 mg/kg/hr

☐ Midazolam Drip (Pediatric) (IVS)*
  Dextrose 5% in Water
  15 mL, IV, Routine
  midazolam (additive)
  50 mg, 0.1 mg/kg/hr

Paralytics
☐ Vecuronium Drip (Pediatric) (IVS)*
  Diluent volume
  30 mL, IV, Routine
  vecuronium (additive)
  30 mg, 0.1 mg/kg/hr

☐ Cisatracurium Drip (Pediatric) (IVS)*
  Diluent volume
  20 mL, IV, Routine
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cisatracurium (additive)
    40 mg, 3 mcg/kg/min

Medications

☐ +1 Hours ceFAZolin
    25 mg/kg, Ped Injectable, IV Piggyback, q6h, Routine, (for 8 dose ), For Pump Cases, Max dose = 1 gram

☐ +1 Hours ceFAZolin
    25 mg/kg, Ped Injectable, IV Piggyback, q6h, Routine, (for 4 dose ), For Non-Pump Cases, Max dose = 1 gram
    Vancomycin may be given if patient has allergy to cephalosporins(NOTE)*

☐ +1 Hours vancomycin
    10 mg/kg, Ped Injectable, IV, q8h, Routine, (for 6 dose ), Max dose = 1 gram

☐ +1 Hours ondansetron
    0.1 mg/kg, Injection, IV Piggyback, q6h, PRN Nausea/Vomiting, Routine, Max dose = 4mg

☐ +1 Hours pantoprazole
    1 mg/kg, Injection, IV Piggyback, q24h, Routine, Max dose = 40mg

☐ +1 Hours famotidine
    0.25 mg/kg, Injection, IV, q12h, Routine, Max Daily Dose = 40 mg/day

☐ +1 Hours diphenhydrAMINE
    1 mg/kg, Ped Injectable, IV, q6h, PRN Nausea, Max dose = 50 mg

Anti-Hypertensives

☐ +1 Hours hydrALAZINE
    0.2 mg/kg, Ped Injectable, IV, q4h, PRN Hypertension, (Maximum dose = 20 mg)
    Comments: Administer one dose and MD to evaluate if dose change needed.

☐ +1 Hours phentolamine
    0.1 mg/kg, Ped Injectable, IV, q1h, PRN Other, specify in Comment
    Comments: SBP > ____, Mean BP > ____ Comment: Max dose=5mg

Analgesics

☐ +1 Hours morphine
    0.1 mg/kg, Injection, IV, q1h, PRN Pain, STAT, Max dose = 5 mg

Anti-pyretics

☐ +1 Hours acetaminophen
    10 mg/kg, Liq, PO, q4h, PRN Pain or Fever, Max Dose = 75 mg/kg/day up to 4g/day
    Comments: For temperature greater than 38

☐ +1 Hours acetaminophen
    10 mg/kg, Supp, PR, q4h, PRN Pain or Fever, Max Dose = 75 mg/kg/day up to 4g/day
    Comments: For temperature greater than 38

Bowel Care

☐ +1 Hours glycerin suppository (pediatric)
    1 supp, Supp, PR, q24h, PRN Other, specify in Comment, Routine
    Comments: For no stool for 24 hours

☐ +1 Days polyethylene glycol 3350
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8.5 g, Powder, PO, QDay, PRN Constipation, Routine
Comments: to be started morning after procedure

- **+1 Days** polyethylene glycol 3350
  17 g, Powder, PO, QDay, PRN Constipation, Routine
  Comments: to be started morning after procedure

- **+1 Days** docusate
  2.5 mg/kg, Oral Susp, PO, bid, Routine, (1 mL = 10 mg)
  Comments: to be started morning after procedure

- **+1 Days** docusate
  50 mg, Cap, PO, bid, Routine
  Comments: to be started morning after procedure

- **+1 Days** docusate
  100 mg, Cap, PO, bid, Routine
  Comments: to be started morning after procedure

**Electrolytes**

- **+1 Hours** potassium chloride
  0.5 mEq/Kg, Ped Injectable, IV, q4h, PRN Other, specify in Comment, Routine
  Comments: Potassium less than or equal to 3.5, Max dose = 40 mEq

- **+1 Hours** potassium chloride
  1 mEq/Kg, Ped Injectable, IV, q4h, PRN Other, specify in Comment, Routine
  Comments: Potassium less than or equal to 3, Max dose = 40 mEq

- **+1 Hours** calcium chloride
  10 mg/kg, Injection, IV, q4h, PRN, Routine
  Comments: Calcium less than 1.3, Max dose = 1 gram

- **+1 Hours** magnesium sulfate
  15 mg/kg, Injection, IV, q4h, PRN Other, specify in Comment, Routine
  Comments: Magnesium less than 2.0, Max dose = 2 grams

**Diuretics**

- **+1 Hours** furosemide
  1 mg/kg, Ped Injectable, IV Push, q6h, Routine, Max dose = 40 mg

- **+1 Hours** furosemide
  1 mg/kg, Ped Injectable, IV Push, q8h, Routine, Max dose = 40 mg

- **+1 Hours** furosemide
  1 mg/kg, Ped Injectable, IV Push, q12h, Routine, Max dose = 40 mg

- **+8 Hours** bumetanide
  0.025 mg/kg, Ped Injectable, IV, q24h, Routine
  Comments: Check with MD prior to administration of first dose

- **+8 Hours** Diuril pediatric
  3 mg/kg, Ped Injectable, IV, q12h, Routine
  Comments: Check with MD prior to administration of first dose

**Respiratory Medications**

- **+1 Hours** albuterol (MDI)
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2 puff, MDI, INH, q4h, Routine, (for 6 dose), 1 puff = 90 mcg

Laboratory

- BNP
  - STAT, T;N, once, Type: Blood, Nurse Collect
  - Comments: Collect upon arrival to unit.

- Troponin-I
  - STAT, T;N, once, Type: Blood, Nurse Collect

- Antithrombin III Level
  - STAT, T;N, once, Type: Blood, Nurse Collect
  - Comments: Collect upon arrival to unit.

- Amylase Level
  - STAT, T;N, once, Type: Blood, Nurse Collect
  - Comments: Collect upon arrival to unit.

- Lipase Level
  - STAT, T;N, once, Type: Blood, Nurse Collect
  - Comments: Collect upon arrival to unit.

- CBC
  - STAT, T;N, once, Type: Blood, Nurse Collect
  - Comments: Collect upon arrival to unit.

- CMP
  - STAT, T;N, once, Type: Blood, Nurse Collect
  - Comments: Collect upon arrival to unit.

- PT/INR
  - STAT, T;N, once, Type: Blood, Nurse Collect
  - Comments: Collect upon arrival to unit.

- PTT
  - STAT, T;N, once, Type: Blood, Nurse Collect
  - Comments: Collect upon arrival to unit.

- Fibrinogen Level
  - STAT, T;N, once, Type: Blood, Nurse Collect
  - Comments: Collect upon arrival to unit.

- Magnesium Level
  - STAT, T;N, once, Type: Blood, Nurse Collect
  - Comments: Collect upon arrival to unit.

- CBC
  - Routine, T;N+720, once, Type: Blood, Nurse Collect

- CMP
  - Routine, T+1;0400, once, Type: Blood, Nurse Collect

- PT/INR
  - Routine, T+1;0400, q24h, Type: Blood, Nurse Collect

- PTT
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Add patient label here

- Hepzyme
  
  *Routine, T+1;0400, q24h, Type: Blood, Nurse Collect*

- Fibrinogen Level
  
  *Routine, T+1;0400, q24h, Type: Blood, Nurse Collect*

- D-Dimer Quantitative
  
  *Routine, T+1;0400, q24h, Type: Blood, Nurse Collect*

- Antithrombin III Level
  
  *Routine, T+1;0400, q24h, Type: Blood, Nurse Collect*

- HIT/Heparin Platelet Antibody
  
  *Routine, T+1, q24h, Type: Blood, Nurse Collect*

- TEG-LeBonheur
  
  *Time Study, T+1;0800, q24h, Type: Blood, Nurse Collect*

- CBC
  
  *Routine, T+1;0400, q24h, Type: Blood, Nurse Collect*

- CRP
  
  *Routine, T+1;0400, q24h, Type: Blood, Nurse Collect*

- BNP
  
  *Routine, T+1;0400, qam x 3 day, Type: Blood, Nurse Collect*

- BNP Pro
  
  *Routine, T+1;0400, qam x 3 day, Type: Blood, Nurse Collect*

- Troponin-I
  
  *Routine, T+1;0400, qam x 3 day, Type: Blood, Nurse Collect*

- Amylase Level
  
  *Routine, T+1;0400, qam x 3 day, Type: Blood, Nurse Collect*

- Lipase Level
  
  *Routine, T+1;0400, qam x 3 day, Type: Blood, Nurse Collect*

- LDH
  
  *Routine, T+1;0400, qam x 3 day, Type: Blood, Nurse Collect*

- Plasma Hemoglobin
  
  *Routine, T+1, q24h, Type: Blood, Nurse Collect*

- CMP
  
  *Routine, T+2;0400, qam x 3 day, Type: Blood, Nurse Collect*

- Magnesium Level
  
  *Routine, T+2;0400, qam x 3 day, Type: Blood, Nurse Collect*

- Methemoglobin
  
  *Time Study, T;N, q12h, Type: Blood, Nurse Collect*

- Prealbumin
  
  *Routine, T+1, once, Type: Blood, Nurse Collect*

Comments: If patient on inhaled nitric oxide.
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- Phosphorus Level
  - Routine, T+1, once, Type: Blood, Nurse Collect

- Triglyceride
  - Routine, T+1, once, Type: Blood, Nurse Collect

- Prealbumin
  - Routine, T+1;0400, Monday, Type: Blood, Nurse Collect

- Phosphorus Level
  - Routine, T+1;0400, Monday, Type: Blood, Nurse Collect

- Triglyceride
  - Routine, T+1;0400, Monday, Type: Blood, Nurse Collect

- Platelet Mapping
  - Routine, T+1, qam x 7 day, Type: Blood, Nurse Collect

- Platelet Mapping
  - Routine, T+7, MonThu x 7 day, Type: Blood, Nurse Collect

- Platelet Mapping
  - Routine, T+14, Monday, Type: Blood, Nurse Collect

Diagnostic Tests

- Electrocardiogram
  - Start at: T;N, Priority: Stat, Reason: Other, specify, Post-op cardiovascular surgery, Transport: Portable, Perform upon arrival to unit
  - Comments: Perform upon arrival to unit

- Chest 1VW Frontal
  - T;N, Reason for Exam: Other, Enter in Comments, Stat, Portable
  - Comments: Reason for exam: Post-op cardiovascular surgery. Perform upon arrival to unit

- Chest 1VW Frontal
  - T+1, 0600, Reason for Exam: Other, Enter in Comments, Routine, Portable

- Chest 1VW Frontal
  - T+2, 0600, Reason for Exam: Other, Enter in Comments, Routine

- Echocardiogram Pediatric (0-18 yrs)
  - Start at: T+1, 0600, Priority: Routine, Reason: Other, specify, Other reason: Assess LVEF, LVSF, LVEDD, Intraventricular septal position, right ventricular function:
  - Comments: Assess LVEF, LVSF, LVEDD, Intraventricular septal position, right ventricular function: qualitative, tricuspid

Consults/Notifications/Referrals

- Notify Physician-Continuing
  - Notify For: Notify if chest tube output is 10mL/kg/hr or greater, leakage, dislodgement, or for other significant changes in chest tube output.

- Notify Physician-Continuing
  - Notify For: Notify if urinary output is < 1mL/kg/hr.
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☐ Notify Physician-Continuing
   Notify For: Notify if patient experiences nausea/vomiting.

☐ Nutritional Support Team Consult
   Routine, Reason: Parenteral Nutrition Support

☐ Dietitian Consult/Nutrition Therapy

☐ Medical Social Work Consult
   Reason: Assistance at Discharge

☐ Consult Pastoral Care
   Reason for Consult: Family Support

☐ Child Life Consult
   T+2;N Routine

☐ Physical Therapy Ped Eval & Tx
   T+2;N, Routine

☐ Occupational Therapy Ped Eval & Tx
   T+2;N, Routine

__________________   _________________   ______________________________________  __________
Date                      Time                                   Physician’s Signature                MD Number

*Report Legend:
DEF - This order sentence is the default for the selected order
GOAL - This component is a goal
IND - This component is an indicator
INT - This component is an intervention
IVS - This component is an IV Set
NOTE - This component is a note
Rx - This component is a prescription
SUB - This component is a sub phase, see separate sheet
R - Required order