Physician Orders ADULT: Liver Transplant Post Op Plan

Initiate Orders Phase
Care Sets/Protocols/PowterPlans
☑ Initiate Powerplan Phase
  Phase: Liver Transplant Postop Phase, When to Initiate:____________________
☐ Initiate Powerplan Phase
  Phase: Mechanically Ventilated Patients (Vent Bundle) Phase, When to Initiate:____________________

Liver Transplant Postop Phase
Non Categorized
☐ Add To Problem List
  Problem: S/P liver transplant
☐ Add To Problem List

Vital Signs
☑ Vital Signs
  q15 minutes x 4, q30 minutes x2, then q1h.
☑ Pulmonary Capillary Wedge Pressure Monitoring
  q4h(std)

Activity
☑ Bedrest
  Routine

Food/Nutrition
☑ NPO
  Instructions: NPO except for medications

Patient Care
☑ VTE Other SURGICAL Prophylaxis Plan(SUB)*
☑ Daily Weights
  qam
☑ Intake and Output
  Routine, q1h(std)
☑ Cough and Deep Breathe
  Routine, q1h-Awake
☑ Incentive Spirometry NSG
  Routine, q1h-Awake
☑ O2 Sat Continuous Monitoring NSG
  Routine
☑ Nasogastric Tube
  Suction Strength: Low Intermittent, Clamp for medications as tolerated
☑ Dressing Care
  Routine, Action: Change, Central Line, Wednesday, and PRN for soiled, loosened and moist dressings.
☑ Indwelling Urinary Catheter Care
  q-shift, PRN
☑ Continue Foley Per Protocol
  Reason: s/p Organ Transplant
☑ SCD Apply
  Apply To Lower Extremities
☑ Whole Blood Glucose Nsg
  q4h(std)
  Ordering Physician MUST complete order details of Date & Time below:(NOTE)*
☑ Transplant Organ Perfusion Date and Time

Respiratory Care
☑ ISTAT Blood Gases (RT Collect)
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T: N Stat once

NOTE: If a mechanical ventilator is needed please order the Mechanically Ventilated Patient Phase (Vent Bundle Phase) in this Plan. (NOTE)*

☐ RT Communication

prn PRN, Special Instructions: Once patient is extubated, discontinue ABG order.

Continuous Infusion

☐ +1 Hours D5 1/2NS

1,000 mL, IV, 100 mL/hr

Medications

NOTE: If enrolled in research study, please check for research protocol and orders. (NOTE)*

**Immunosuppression Medications**

☑ +1 Hours mycophenolate mofetil

1,000 mg, Oral Susp, NG, bid, To be given at 0600 and 1800

Comments: Once extubated and tolerating PO change route to PO

Anti-infectives

☐ +1 Hours ampicillin-sulbactam

1.5 g, IV Piggyback, IV Piggyback, q6h, (for 2 dose )

Comments: Coordinate first dose with antibiotics given in surgery.

NOTE: If allergic to Penicillin/Cephalosporins place both orders below: (NOTE)*

☑ +1 Hours clindamycin

600 mg, IV Piggyback, IV Piggyback, q8h, (for 2 dose )

Comments: Coordinate first dose with antibiotics given in surgery.

☐ +1 Hours aztreonam

1 g, IV Piggyback, IV Piggyback, q8h, (for 2 dose )

Comments: Coordinate first dose with antibiotics given in surgery.

☑ +1 Days valganciclovir

450 mg, Oral Susp, NG, QODay

Comments: CMV prophylaxis

☑ +1 Hours nystatin 100,000 units/mL oral suspension

5 mL, Oral Susp, PO, tid

Comments: Swish and Swallow. For fungal prophylaxis

☐ +3 Days sulfamethoxazole-trimethoprim SS

80 mg, Tab, PO, q48h

Comments: Please give at bedtime. PCP prophylaxis.

NOTE: If allergic to Sulfa place order below: (NOTE)*

☐ +3 Days dapsone

25 mg, Tab, PO, QDay

Other Medications

☑ Transplant Insulin Sliding Scale Protocol Plan (SUB)*

☑ +1 Hours famotidine

20 mg, Injection, IV Push, q12h

Comments: Reduce frequency to q24h for CrCl less than 50 mL/min.

☐ +1 Hours pantoprazole

40 mg, Injection, IV Push, QDay

☐ +1 Hours phytonadione

10 mg, IV Piggyback, IV Piggyback, q8h, Routine, (for 3 dose )

Comments: Begin first dose immediately post-op arrival to TICU.

☑ +1 Hours clonDine

0.1 mg, Tab, NG, q4h, PRN Hypertension, PRN SBP greater than 180 mmHg or DBP greater than 90 mmHg

☐ +1 Hours LORazepam

0.5 mg, Injection, IV Push, once, PRN Agitation
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Comments: discontinue once patient is extubated

NOTE: Place only one order below :

- **1 Hours** morphine
  - 1 mg, Injection, IV Push, q4h, PRN Pain, Moderate (4-7) (DEF)*
  - Comments: discontinue once patient is extubated
  - 2 mg, Injection, IV Push, q4h, PRN Pain, Severe (8-10)
  - Comments: discontinue once patient is extubated

NOTE: If patient is allergic to **morphine** place one order below :

- **1 Hours** HYDROmorphine
  - 0.5 mg, Injection, IV Push, q4h, PRN Pain, Moderate (4-7), discontinue once patient is extubated (DEF)*
  - 1 mg, Injection, IV Push, q4h, PRN Pain, Severe (8-10), discontinue once patient is extubated

NOTE: If Hepatitis B Prophylaxis needed for core antibody positive donor, consider placing order below:

- **1 Hours** entecavir
  - 0.5 mg, Tab, NG, QDay
  - Comments: Once extubated and tolerating PO, change route to PO.

Laboratory

- SV O2 Measured
  - STAT, T;N, once, Type: Blood, Nurse Collect
- CBC
  - STAT, T;N, once, Type: Blood, Nurse Collect
- CMP
  - STAT, T;N, once, Type: Blood, Nurse Collect
- Calcium Ionized
  - STAT, T;N, once, Type: Blood, Nurse Collect
- PT/INR
  - STAT, T;N, once, Type: Blood, Nurse Collect
- PTT
  - STAT, T;N, once, Type: Blood, Nurse Collect
- CBC
  - Time Study, T+N+480, q8h x 3 occurrence, Type: Blood, Nurse Collect
- AST
  - Time Study, T+N+480, q8h x 3 occurrence, Type: Blood, Nurse Collect
- Potassium Level
  - Time Study, T+N+480, q8h x 3 occurrence, Type: Blood, Nurse Collect
- Glucose Level
  - Time Study, T+N+480, q8h x 3 occurrence, Type: Blood, Nurse Collect
- PT/INR
  - Time Study, T+N+480, q8h x 3 occurrence, Type: Blood, Nurse Collect

NOTE: AM Labs

- SV O2 Measured
  - Routine, T+1;N, qam x 2 day, Type: Blood, Nurse Collect
- CBC
  - Routine, T+1;N, qam, Type: Blood, Nurse Collect
- CMP
  - Routine, T+1;N, qam, Type: Blood, Nurse Collect
- PT/INR
  - Routine, T+1;N, qam, Type: Blood, Nurse Collect
- PTT
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 Routine, T+1;N, qam, Type: Blood, Nurse Collect

NOTE: If patient transplanted for Hepatitis B Virus, place order below:(NOTE)*

☐ Hepatitis B Antibody
  Routine, T+7;N, once, Type: Blood, Nurse Collect

Diagnostic Tests

☐ Chest 1 VW
  T;N, Reason for Exam: Other, Enter in Comments, Stat, Portable
  Comments: post transplant

☐ US Abd Comp W/Delay Diet Plan(SUB)*

☐ US Abd/Retroper Dup Art In/Vein Out Comp
  T;N, Routine, Bedside

Consults/Notifications/Referrals

☐ Notify Physician For Vital Signs Of
  Notify: Surgical Transplant Resident or Fellow, BP Systolic > 180, BP Diastolic > 90, BP Systolic < 100, BP Diastolic < 60, Celsius Temp > 38.3, Heart Rate > 120, Heart Rate < 60, Oxygen Sat < 94, Urine Output < 20mL/hr, Blood Glucose < 60, Blood Glucose

☐ Notify Resident-Continuing
  Notify: Surgical Transplant Resident, Notify For: Platelets less than 25,000 per microliter and/or Phosphorus Level less than 3 mg/dL

☐ Dietitian Consult/Nutrition Therapy
  Type of Consult: Other, please specify, Special Instructions: Nutrition Assessment and recommendations

☐ Nursing Communication
  Notify Transplant Research Coordinator of patient arrival to ICU

☐ Medical Social Work Consult
  Reason: Other, specify, Psychosocial Assessment

☐ Physical Therapy Initial Eval and Tx
  Routine

Mechanically Ventilated Patients Phase

Non Categorized

R Mechanically Ventilated Pt (Vent Bundle) Care Track
  T;N

Patient Care

☐ Elevate Head Of Bed
  30 degrees or greater if systolic blood pressure is greater than 95 mmHg

☐ Reposition ETT (Nsg)
  T;N, QDay, Rotate tube from one side to the other to reduce the risk of skin breakdown.

☐ ETT Subglottic Suction
  ☐ Low Continuous, 20mmHg, Applies to ETT with the Hi-Lo suction capability. (DEF)*
  ☐ Low Intermittent, 40mmHg, Applies to ETT with the Hi-Lo suction capability.
  ☐ Low Intermittent, 60mmHg, Applies to ETT with the Hi-Lo suction capability.
  ☐ Low Intermittent, 80mmHg, Applies to ETT with the Hi-Lo suction capability.
  ☐ Low Intermittent, 100mmHg, Applies to ETT with the Hi-Lo suction capability.
  ☐ Low Intermittent, 120mmHg, Applies to ETT with the Hi-Lo suction capability.

☐ Mouth Care
  Routine, q2h(std)

☐ Nursing Communication
  Call MD if higher than any of the following maximum doses of medications is required. LORazepam 6 mg in 3 hours, Fentanyl 500 mcg/hr, propofol 100 mcg/kg/min, midazolam 7mg/hr

☐ Nursing Communication
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If SAS goal not met in 6 hours on haloperidol, call MD for further orders

☐ Nursing Communication
  If receiving haloperidol, patient must be on cardiac monitor - call MD for QTc prolongation greater than or equal to 500 msecs and HOLD haloperidol

☐ Nursing Communication
  Once SAS goal is met initially, reassess and document SAS score q2hrs

☐ Nursing Communication
  If the patient is on sedation medication other than propofol, begin turning off the sedation medications at 8am for the sedation vacation process

☐ Nursing Communication
  Notify Respiratory for Weaning Assessment at 8am if a Vacation Sedation is initiated.

Respiratory Care

☐ Mechanical Ventilation
☐ Reposition ETT (Nsg)
  T;N, QDay, Rotate tube from one side to the other to reduce the risk of skin breakdown.

Medications

☐ +1 Hours docusate
  100 mg, Liq, Tube, bid, Routine
  Comments: HOLD for diarrhea

☐ +1 Hours famotidine
  20 mg, Oral Susp, Tube, bid, Routine
  Comments: reduce to 20 mg daily if creatinine clearance is less than 50 mL/min

☐ +1 Hours famotidine
  20 mg, Injection, IV Push, bid, Routine
  Comments: reduce to 20 mg daily if creatinine clearance is less than 50 mL/min

☐ +1 Hours pantoprazole
  40 mg, Granule, NG, QDay, Routine

☐ +1 Hours pantoprazole
  40 mg, Injection, IV Push, QDay, Routine

☐ VTE MEDICAL Prophylaxis Plan(SUB)*
☐ VTE SURGICAL Prophylaxis Plan(SUB)*

☐ Sequential Compression Device Apply
  T;N, Apply to Lower Extremities

Sedation

Refer to Patient Care Section/Nursing communication orders for medication monitoring parameters.(NOTE)*

☐ Sedation Goal per Riker Sedation Agitation Scale (SAS) Goal of 3-4 recommended(NOTE)*

☐ Sedation Goal per Riker Scale
  Goal: 3 (Sedated), T;N

☐ Propofol Orders Plan(SUB)*

☐ +1 Hours LORazepam
  1 mg, Injection, IV Push, q30min, PRN Other, specify in Comment, Routine
  Comments: to maintain SAS goal (Maximum of 6 mg in a 3 hr period). If patient is over sedated, hold dose until appropriate SAS achieved. Call MD is patient requires more than 20 mg/day.

☐ +1 Hours midazolam 1mg/mL/NS 50 mL PreMix
  50 mg / 50 mL, IV, Routine, titrate
  Comments: Initiate at 1 mg/hr. Titrate by 0.5mg/hr every 15 minutes until SAS goal achieved. Maximum dose 7 mg/hr

Pain Management

Choose one of the orders below. morPHINE is not recommended if creatinine clearance is less than 50 mL/min, in liver failure or SBP less than 90mmhg or MAP less than 65 mmhg.(NOTE)*
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☐ +1 Hours morphine
   4 mg, Injection, IV Push, q1h, PRN Pain, Moderate (4-7), Routine

☐ +1 Hours HYDROMorphone
   1 mg, Injection, IV Push, q1h, PRN Pain, Severe (8-10)

☐ +1 Hours fentaNYL 10 mcg/mL in NS infusion
   2,500 mcg / 250 mL, IV, Routine, Titrated
   Comments: Concentration 10 mcg/mL
   Initial Rate: 50 mcg/hr; Titration Parameters: 50 mcg/hr every 10 min to SAS goal per MD orders. Max Rate: 500 mcg/hr

Refractory Agitation
   Place order below for agitation that persists despite adequate sedation & analgesia. Refer to Patient Care Section/Nursing communication orders for medication monitoring parameters.(NOTE)*

☐ +1 Hours haloperidol
   2 mg, Injection, IV Push, q1h, PRN Agitation, Routine
   Comments: Cardiac monitor required. *If Qtc greater than 500 msec, hold haloperidol. *If SAS not met in 6 hrs, call MD. Call MD is patient requires more than 20 mg/day.

Sedation Vacation Daily
✓ Sedation Vacation
   qam, see Order Comment: T;N
   Comments: For patients receiving continuous infusions, lighten/discontinue sedation and pain medications at 0800 daily (or more often as indicated by MD/required by nsg unit) until the patient is awake, can follow commands, or until they become uncomfortable or agitated. Resume sedation infusion at 1/2 the previous rate and re-titrated to SAS goal. If SAS goal still achieved without active therapy, do not restart sedation. If patient becomes agitated, resume sedation infusion at 1/2 the previous rate & re-titrated to SAS goal (document on the nursing flow sheet)

✓ Ventilator Weaning Trial Medical by RT
   T;N

Consults/Notifications/Referrals
✓ Notify Physician-Continuing
   Notify: MD, Notify For: QTc prolongation on cardiac monitor greater than or equal to 500msecs and HOLD haloperidol

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