



Physician Orders ADULT: Liver Transplant Post Op Plan

Initiate Orders Phase

Care Sets/Protocols/PowerPlans

- 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 cloNIDine
 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 :(NOTE)*

- +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 :(NOTE)*

- +1 Hours** HYDRomorphone
 - 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:(NOTE)*

- +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(NOTE)*
- 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 msec 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)*
Choose 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 if 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, Titrate
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 haldoperidol. *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-titrate 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-titrate 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
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***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

