



## Physician Orders ADULT: Liver and Kidney Transplant Post Op Plan

### Initiate Orders Phase

#### Care Sets/Protocols/PowerPlans

- ☒ Initiate Powerplan Phase  
Phase: Liver and Kidney Transp Postop Phase, When to Initiate:\_\_\_\_\_
- ☐ Initiate Powerplan Phase  
Phase: Mechanically Ventilated Patients (Vent Bundle) Phase, When to Initiate:\_\_\_\_\_

### Liver and Kidney Transp Post Op Phase

#### Non Categorized

- ☐ Add To Problem List  
Problem: S/P kidney transplant
- ☐ Add To Problem List  
Problem: S/P liver transplant
- ☐ Add To Problem List

#### Vital Signs

- ☒ Vital Signs  
q15minutes x 4, q30minutes x 2, 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)
- ☒ Turn Cough Deep Breathe  
Routine, q1h-Awake
- ☒ Incentive Spirometry NSG  
Routine, q1h-Awake
- ☒ O2 Sat Monitoring NSG  
Routine
- ☒ Nasogastric Tube  
Suction Strength: Low Intermittent, Clamp for medications as tolerated
- ☒ Dressing Care  
Routine, Action: Change, Location: 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 and Time below:(NOTE)\*

- ☒
- Transplant Organ Perfusion Date and Time

☐ Nursing Communication

*Notify Transplant Research Coordinator of patient arrival to ICU*

☒ ISTAT Blood Gases (RT Collect)

*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

once. **Special Instructions:** Once patient is extubated, discontinue ABG order

☐ D5 1/2NS

1,000 mL, IV, 30 mL/hr

1/2 NS replacement fluid order below is active for 24 hours. If a longer duration is necessary, modify the duration details.(NOTE)\*

- 1/2NS

1,000 mL, IV, (for 24 hr ), replacement fluid, Replace UOP q1h, see comments for rates

Comments: Urine output per hour IV fluid per hour 1-300 mL

replace 100% of urine output 301-500 mL

replace 80% of urine

output greater than 500 mL replace 60% of urine output

- ☐ Nursing Communication

Contact physician within 24 hours after initiation of 1/2 NS replacement fluid order to determine if order is necessary beyond 24 hours.

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

**+1 Hours** mycophenolate mofetil

1 g, Oral Susp, NG, bid, Routine, To be given at 0600 and 1800

Comments: Once extubated and tolerating PO change route to PO

☐ **+1 Hours** ampicillin-sulbactam

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

Comments: Coordinate first dose with antibiotics given in surgery.

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

- ☐ +1 Hours clindamycin

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

*Comments: Coordinate first dose with antibiotics given in surgery.*

- ☐ **+1 Hours** aztreonam

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

Comments: Coordinate first dose with antibiotics given in surgery.

- +1 Days** valganciclovir

450 mg, Oral Susp, NG, QODay, Routine

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





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80 mg, Tab, PO, q48h, Routine

Comments: Please give at bedtime. PCP prophylaxis

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, Routine  
Comments: Reduce frequency to q24h for CrCl less than 50 mL/min.
- ☐ **+1 Hours** pantoprazole  
40 mg, Injection, IV Push, QDay, Routine
- ☐ 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, Routine, PRN SBP greater than 180 mmHg or DBP greater than 90 mmHg
- ☐ **+1 Hours** LORazepam  
0.5 mg, Injection, IV Push, once, PRN Agitation, Routine  
Comments: discontinue once patient is extubated
- Place only one order below :(NOTE)\*
- ☐ **+1 Hours** morphine
- ☐ 2 mg, Injection, IV Push, q4h, PRN Pain, Severe (8-10), Routine (DEF)\*  
Comments: discontinue once patient is extubated
- ☐ 1 mg, Injection, IV Push, q4h, PRN Pain, Moderate (4-7), Routine  
Comments: discontinue once patient is extubated
- If patient is allergic to morPHINE place one order below :(NOTE)\*
- ☐ **+1 Hours** HYDROmorphine
- ☐ 1 mg, Injection, IV Push, q4h, PRN Pain, Severe (8-10), Routine (DEF)\*  
Comments: discontinue once patient is extubated
- ☐ 0.5 mg, Injection, IV Push, q4h, PRN Pain, Moderate (4-7), Routine  
Comments: discontinue once patient is extubated
- If Hepatitis B Prophylaxis needed for core antibody positive donor, consider placing order below:(NOTE)\*
- ☐ **+1 Hours** entecavir  
0.5 mg, Tab, NG, QDay, Routine  
Comments: Once extubated and tolerating PO, change route to PO.

#### Laboratory

NOTE: Labs for first 24 hours(NOTE)\*

- ☒ O2 Saturation Meas Oximetry  
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





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- ☒ PTT  
*STAT, T;N, once, Type: Blood, Nurse Collect*
- ☒ CBC  
*Time Study, T;N+480, q8h x 5 occurrence, Type: Blood, Nurse Collect*
- ☒ AST  
*Time Study, T;N+480, q8h x 5 occurrence, Type: Blood, Nurse Collect*
- ☒ Potassium Level  
*Time Study, T;N+480, q8h x 5 occurrence, Type: Blood, Nurse Collect*
- ☒ Glucose Level  
*Time Study, T;N+480, q8h x 5 occurrence, Type: Blood, Nurse Collect*
- ☒ PT/INR  
*Time Study, T;N+480, q8h x 5 occurrence, Type: Blood, Nurse Collect*
- NOTE: AM Labs(NOTE)\*
- ☒ SV O2 Measured  
*Routine, T+1;N, qam, Type: Blood, Nurse Collect*
- ☒ CBC  
*Routine, T+1;N, qam x 5 day, Type: Blood, Nurse Collect*
- ☒ CMP  
*Routine, T+1;N, qam x 5 day, Type: Blood, Nurse Collect*
- ☒ PT/INR  
*Routine, T+1;N, qam x 3 day, Type: Blood, Nurse Collect*
- ☒ PTT  
*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: Reason: Post Transplant*

#### 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 < 20, Blood Glucose < 60, Blood Glucose > 200*
- ☒ Notify Physician-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: Nutrition Management*
- ☒ Transplant Coordinator Consult  
*Reason for Consult: Transplant patient arrival to ICU*
- ☒ Medical Social Work Consult  
*Routine, 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





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T;N

### Patient Care

- ☒ Elevate Head Of Bed  
30 degrees or greater if systolic blood pressure is greater than 95 mmHg
- ☒ Reposition ETT (Nsg)  
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  
If SAS goal not met in 6 hours, 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)  
QDay, Rotate tube from one side to the other to reduce the risk of skin breakdown.

### Medications

- ☐ +1 Hours docusate  
100 mg, Liq, NG, bid, Routine  
Comments: HOLD for diarrhea
- ☐ +1 Hours famotidine  
20 mg, Tab, NG, 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





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- ☒ **+1 Hours** Chlorhexidine For Mouthcare 0.12% Liq  
15 mL, Liq, Mucous Membrane, bid, Routine  
Comments: For mouthcare at 0800 and 2000.
- ☐ 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) (DEF)\*
  - ☐ Goal: 4 (Calm/Cooperative)
- ☐ 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 SAS goal achieved. Call MD if patient requires more than 20 mg/day.
- ☐ **+1 Hours** midazolam  
1 mg, Injection, IV Push, q1h, PRN Other, specify in Comment, Routine  
Comments: To maintain SAS goal. If patient is over-sedated, hold dose until SAS goal 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
- ☐ **+1 Hours** dexmedetomidine infusion (ICU Sedation) (IVS)\*  
Sodium Chloride 0.9%  
100 mL, IV, (for 72 hr ), Titrate  
Comments: Concentration: 4 mcg/mL Initiate infusion at 0.2 mcg/kg/hr. Titrate by 0.1 mcg/kg/hr every 30 minutes to reach goal sedation of Riker 3-4. DO NOT BOLUS dose at any time. DO NOT TITRATE MORE FREQUENTLY THAN EVERY 30 MIN.  
dexmedetomidine (additive)  
400 mcg

#### 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)\*

- ☐ **+1 Hours** morphine  
2 mg, Injection, IV Push, q1h, PRN Pain, Moderate (4-7), Routine
- ☐ **+1 Hours** HYDROmorphine  
0.5 mg, Injection, IV Push, q1h, PRN Pain, Moderate (4-7), Routine
- ☐ **+1 Hours** morphine  
4 mg, Injection, IV Push, q1h, PRN Pain, Severe (8-10), Routine
- ☐ **+1 Hours** HYDROmorphine  
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







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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:  
 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

#### 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

