Transplant Institute

Beth Israel Deaconess Medical Center
A teaching hospital of Harvard Medical School

LIVER TRANSPLANT RECIPIENT INPATIENT CLINICAL PATHWAY
ICU Module

Patient Name:____________________
Patient MRN:____________________
Admit Date:_______ DC Date:_______

	Pre-Op Holding Area Date:	OR Date:	Day 0 SICU Date:
NOTES	● Hepatology consult ● Consents: Surgery, SICU and study (as indicated) ● Health Care Proxy by RN	● Time-out and group huddle to confirm patient identity and planned procedure ● Verify and sign ABO compatibility form b efore incision is made	● MD and nursing to review and reconcile all pre-transplant medication ● Pre-op meds restarted as appropriate
TESTS	● H&P including weight ● LABS: CBC, Chem 7, LFTs, alb, Ca, Phos, Mg, Coags UA, UC, CXR, EKG ● Rectal swab for VRE ● Type & cross for liver transplant per blood bank protocol ● Check: HBV DNA-- If HBsAg pos recipient HBsAb titer--If HBcAb pos donor ● Check CMV serology: If IgG positive, do nothing. If no results or IgG negative, recheck CMV IgG/IgM ● If liver/ kidney check with surgeon re: need for HLA typing and crossmatch to be sent to BWH ● Review all luminex anti-HLA antibody results	● Labs per Anesthesia ● Maintain Glucose 100-150mg/dl ○ TEE TBD by surgeon and anesthesia, consider if: ~ EF<50% ~ Known cardiac disease, includes CAD · Significant valve disease, ASD, PFO ~ Pulm hypertension with PA pressure >35mmHg	● VS per SICU protocol (see trigger criteria at right) ● Weight on admission and daily ● Strict I & O ● CBC, Chem 7, LFTs, alb, Ca, Phos, Mg Coags on admission and q8h ● Finger stick glucose (target <120) ● CXR, EKG ● ABG 1h after all vent changes or q8h ● Amylase on admission to SICU, if normal not thereafter
CARDIOVASCULAR	● Blood bank will set up blood products-no extra order needed beyond alerting BB of case ● Routine preop platelet transfusion is **NOT** indicated ● Give antiarrythmics and beta-blockers prescribed for cardiac disease ● Order Heparin 5,000 Units SC to be given in pre-op holding by RN unless HIT (heparin induced thrombocytopenia) antibody positive ● Cardiology assessment if new EKG changes	● BB will send 10 Units RBC and plasma to OR ● BB to stay 10 Units RBC ahead ● BB will have available on call: o 3 sets of platelets o 2 sets of cryo- BB to thaw *when requested* and call into room when ready ● Cell saver, unless patient has: Hepatoma or active abdominal infection ● Veno-venous bypass in patients who are NOT candidates for piggy-back transplant ● Compression boots placed prior to intubation	● Pressors- Patients requiring >30 cc/kg fluid bolus for low BP (target MAP >60) with adequate filling pressures (mean PA pressure>20-30) ● Neosynephrine 0 .1-1 mcg/kg/min (1st choice) OR ● Norepinephrine 0.05-.5 mcg/kg/min if no Neo effect **SEE TRANSFUSION TARGETS ON RIGHT SIDE OF SHEET** ● Heparin 5,000 Units SC q12h-hold if patient is actively bleeding and/or INR>3.0 ● Compression boots if not walking
RESPIRATORY			● Must have MD order to change vent settings ● Vent management settings per POE: ● Keep pO_2>80, keep O_2 sat >96%, keep pCO_2 35-45, tidal volume 6cc/kg, rate 10, assist control 12-14, FIO_2 50%, PEEP 5, increase to support O_2 ● CXR ● Consider wean to extubate (check with attending)
IV FLUIDS/RENAL	● Nephrology consult (if patient has ESRD) ● Void on call to OR	● Lasix- only if volume overloaded (80mg in kit) o Bolus after reperfusion PRN in patients with increased filling pressure o Need for Lasix infusion 1-5 mg/h TBD by surgeon and anesthesiologist for elevated PA pressure and/or low urine output ● For hypovolemia: Plasmalyte- **No** Lactated Ringers ● Foley placed after anesthesia induction ● CVVH or CVVHD run by SICU RN in patients who were on it pre op and/or had pre-transplant renal dysfunction and oliguria	● IVF maintenance D5 1/2 NS at 100 –150cc/h ● If diabetic or on insulin, use ½ NS at 100-150 cc/h AND start D5 W @10cc/h per SICU protocol ● Fluid boluses as needed with NS ● Salt poor albumin (25%) to keep albumin >2.0
DRAINS, LINES & WOUND CARE		Lines in place: ☐ Periph IV ☐ A-line New lines/drains/tubes placed: ☐ R IJ ☐ Foley ☐ Swan ☐ T-tube ☐ RIC line ☐ NG ☐ JP X 2 ☐ ICP	Lines/drains/tubes in place: ☐ Periph IV ☐ Swan ☐ T-tube ☐ Foley ☐ A-line ☐ RIC line ☐ Roux tube ☐ NG ☐ R IJ ☐ JP X 2 ☐ ICP **MANAGEMENT: adhere to BIDMC central access device guideline for insertion and care** ● JP drains X2 to bulb suction: assess & empty output q1-2h(to maintain continuous suction) strip & clean with CHG ● T tube or Roux tube: assess and empty on admit then assess & empty output q1h ● Foley to gravity & record output q1h ● NG to cont. low wall suction: record output q4h and flush q shift with 10cc NS
GI/ENDOCRINE/ NUTRITION	● Diabetic patients: Hold Metformin and manage insulin per protocol ● NPO, except for Mycophenolate Mofetil and Fluconazole	● NPO, no tube feeds or TPN	● NPO, no tube feeds or TPN ● Pantoprazole 40mg IV daily* ● Replace electrolytes per SICU protocol* ● Maintain glucose <120 per SICU protocol
NEURO/PAIN/ COMFORT	● Anesthesia consult ● Pain score as 6th Vital Sign discussed with patient and family by RN	● Gel pads to upper arms, position Thompson bar attachments to table, lower body warmer +/- upper body warmer, position head on foam pillow	Target Pain score 1-4 ● Morphine 1-4mg IV q1-2h PRN **If Morphine not tolerated or ineffective:** ● Hydromorphone 0.5-2mg IV q1-2h PRN ● Propofol if intubated titrated to comfort. Taper prior to extubation ● Ondansetron 4mg IV PRN nausea AND/OR ● Prochlorperazine 5-10mg IV q6-8h PRN* ● Bair hugger for hypothermia for first 2 hours
IMMUNOSUPPRESSION	● Mycophenolate Mofetil 1000mg PO on admission ● Order “ON CALL TO OR” Methylprednisolone 500mg IV	● Methylprednisolone 500 mg IV (after anesthesia induction)	● Mycophenolate Mofetil 1000mg NG BID ● Do not start Tacrolimus or Methlyprednisolone
ID	***** HAND HYGIENE***** ● Transplant Infectious Disease consult (if HIV+) ● Hibiclens wash ● When donor suitability confirmed, give: Fluconazole 400mg PO on admission ● Order “ON CALL TO OR”: Ampicillin-Sulbactam 3g IV	***** HAND HYGIENE***** ● Preop Antibiotic prophylaxis: ○ Ampicillin-Sulbactam 3g IV administered 30 minutes prior to incision and completed prior to incision OR ○ If life-threatening allergy to penicillin or cephalosporine or known MRSA colonization or infection: ~ Vancomycin 1g IV **AND** Levofloxacin 500mg IV administered 60 mins prior to incision and completed prior to incision **Intraoperative Redosing:** **Antibiotic** **Intraop Dose** Ampicillin-Sulbactam 3gm IV q4h Vancomycin 1gm IV q12h Levofloxacin No redosing needed *If blood loss>1500cc, redose at end of case*	***** HAND HYGIENE***** ● Post-operative dosing up to a max of 24h: Ampicillin-Sulbactam 3g IV q6h **OR** Vancomycin 1g IV q12h **AND** Levofloxacin redose not needed ● Valganciclovir 900mg NG/PO daily **adjusted for renal function (SEE RIGHT OF PAGE)** ● Fluconazole 400mg per NG q day ● Sulfameth/Trimethoprim Suspension 10ml NG/PO q day **OR** ● If sulfa allergy, wait until POD#7 and give Pentamidine 300mg via inhalation once monthly if sulfa allergy
PATIENT EDUCATION/ COPING/ MENTAL STATUS/ PSYCHOSOCIAL	● Nursing to review Learning Center handout “Liver Transplant: What To Expect” with patient and family ● Nursing to review patient version of the pathway with patient and family ● Transplant surgeon to visit with patient on Farr 10 or in holding area	● RN to update family q hour	● Surgeon to meet with family post op
ACTIVITY	● Ad lib		● Bed rest, turn q2h, HOB 300 ● Fall risk assessment per nursing
HBV/HCV/HCC	● If HBsAg+ recipient or HBcAb+ donor: ○ HBIg 10,000 units IV ordered and sent to OR by Pharmacy	● If HBsAg+ recipient or HBcAb+ donor: HBIg 10,000 Units IV during anhepatic phase	

	POD#1 SICU Date:	POD#2 SICU Date:	POD#_ SICU Date:
NOTES	● MD and nursing to review and reconcile all pre-transplant medication ● Pre-op meds restarted as appropriate	● MD and nursing to review and reconcile all pre-transplant medication ● Pre-op meds restarted as appropriate	● MD and nursing to review and reconcile all pre-transplant medication ● Pre-op meds restarted as appropriate
TESTS	● VS per SICU protocol (see trigger criteria at right) ● Weight daily ● Strict I & O ● Labs q8h, if stable @24h reduce to BID ● Finger stick glucose (target <120) ● CXR if still intubated ● ABG q1h after all vent changes or q8h until extubated, then q24h when stable ● **HBV-Quant HBsAb titer (if on HBIg)** ● **Hepatic Duplex by Radiology at bedside (all recipients)**	● VS per SICU protocol (see trigger criteria at right) ● Weight daily ● Strict I & O ● Labs q12h, if stable reduce to q day ● Finger stick glucose (target <120) ● CXR if still intubated ● ABG q1h after all vent changes or q8h until extubated, then q24h when stable ● HBV-Quant HBsAb titer (if on HBIg) ● **Tacrolimus level q 0730 (12 hour trough)** ● **Hepatic Duplex by Radiology at bedside (living donor recipients only)**	● VS per SICU protocol (see trigger criteria at right) ● Weight daily ● Strict I & O ● Labs q12h, if stable reduce to q day ● Finger stick glucose (target <120) ● CXR if still intubated ● ABG q1h after all vent changes or q8h until extubated, then q24h when stable ● HBV-Quant HBsAb titer (if on HBIg) ● **Tacrolimus level q 0730 (12 hour trough)** ● **Hepatic Duplex by Radiology at bedside (living donor recipients only)**
CARDIOVASCULAR	● Same as prior day	● Same as prior day	● Same as prior day
RESPIRATORY	● **Joint Transplant MD and ICU MD decision to approve weaning protocol** ● O_2 by mask/nasal cannula to maintain sat>92% ● Incentive spirometer X10 q1h when awake ● Cough pillow while awake	● Same as prior day	● Same as prior day
IV FLUIDS/RENAL	● Same as prior day ● **Assess volume status and consider ↓ IVF**	● Same as prior day ● Assess volume status and consider ↓ IVF	● Same as prior day ● Assess volume status and consider ↓ IVF
DRAINS, LINES & WOUND CARE	Lines/drains/tubes in place: ☐ Periph IV ☐ Swan ☐ Roux tube ☐NG ☐ A-line ☐ JP X 2 ☐ ICP ☐ R IJ ☐ T-tube ☐ Foley **MANAGEMENT of remaining drains, lines and wound care as previous day** ● **Dressing change AND replace DC:** ● **RIC line** ● **NG if no Roux tube AND output <1000ml/day with no abdominal distension and extubated (check with attending) *If Roux tube, leave in until POD#2**	Lines/drains/tubes in place: ☐ Periph IV ☐ Swan ☐ Roux tube ☐ A-line ☐ JP X 2 ☐ ICP ☐ R IJ ☐ T-tube ☐ Foley **MANAGEMENT of remaining drains, lines and wound care as previous day** ● **Dressing change AND replace DC:** ● **Lateral JP when <200cc serous fluid/day leave in if bloody or bilious** ● **Medial JP when <200cc serous fluid/day and t-tube clamped if present and cholangiogram shows no leak and output is not bloody or bilious** ● **NG same as previous day**	Lines/drains/tubes in place: ☐ Periph IV ☐ Swan ☐ Roux tube ☐ A-line ☐ JP X 2 ☐ ICP ☐ R IJ ☐ T-tube ☐ Foley **MANAGEMENT of remaining drains, lines and wound care as previous day** ● **Dressing change AND replace DC:** ● **Lateral JP when <200cc serous fluid/day-leave in if bloody or bilious** ● **Medial JP when <200cc serous fluid/day and t-tube clamped if present and cholangiogram shows no leak and output is not bloody or bilious** ● **NG same as previous day**
GI/ENDOCRINE/ NUTRITION	● *Same as prior day ● Maintain glucose <120 per SICU protocol ● Restart TF if on pre-transplant ● Start clears if no aspiration risk AND NG out ● If unable to do clears, start TPN if FT cannot be placed ● **Docusate Sodium 100mg PO BID*** ● **Nutrition consult**	● *Same as prior day ● Assess glucose control ● Maintain glucose <120 per SICU protocol ● Start clears if no aspiration risk **AND** NG out ● Advance diet to regular if tolerating clears ● TF or TPN if applicable	● *Same as prior day ● Assess glucose control ● Maintain glucose <120 per SICU protocol ● Start clears if no aspiration risk **AND** NG out ● Advance diet to regular if tolerating clears ● TF or TPN if applicable
NEURO/PAIN/ COMFORT	Target Pain Score 1-4 ● Same as prior day for pain and comfort ● **Propofol if intubated and needed. Titrate to effect.** ● **Daily wake-up if on sedation**	Target Pain Score 1-4 ● Same as prior day for pain and comfort ● **Propofol if intubated and needed. Reduce to facilitate extubation.** ● **Daily wake-up if on sedation**	Target Pain Score 1-4 ● Same as prior day for pain and comfort ● **Propofol if intubated and needed. Reduce to facilitate extubation.** ● **Daily wake-up if on sedation**
IMMUNOSUPPRESSION	● Mycophenolate Mofetil 1000mg NG/PO BID ● **Steroid per protocol (see right of sheet)** ● **Tacrolimus** to start in evening @1mg NG q 12h (renal adjust) to achieve target trough level 10-12 ng/ml	● Mycophenolate Mofetil 1000mg NG/PO BID ● Steroid per protocol ● Tacrolimus NG/PO q12h **(renal adjust)** to achieve target trough level 10-12ng/ml	● Mycophenolate Mofetil 1000mg NG/PO BID ● Steroid per protocol ● Tacrolimus NG/PO q12h **(renal adjust)** to achieve target trough level 10-12ng/ml
ID	***** HAND HYGIENE***** ● Valganciclovir 900mg NG/PO daily **adjusted for renal function** ● Fluconazole 400mg per NG q day ● Sulfameth/Trimethoprim Suspension 10ml NG/PO q day	***** HAND HYGIENE***** ● Same as prior day	***** HAND HYGIENE***** ● Same as prior day
PATIENT EDUCATION/ COPING/ MENTAL STATUS/ PSYCHOSOCIAL	● Teach cough/deep breathing ● Instruct in use of incentive spirometer 10X q1h while awake ● Case management consult	● Reinforce coughing/deep breathing ● Reinforce use of incentive spirometer	● Reinforce coughing/deep breathing ● Reinforce use of incentive spirometer
ACTIVITY	● OOB→chair TID if extubated and VS stable ● Fall risk assessment per nursing ● Exercise program per Pre-Admission Packet with assist from family and/or hospital staff	● Same as prior day ● OOB→chair TID	● Same as prior day ● OOB→chair TID
HBV/HCV/HCC	● Check HBsAb blood level (Days 1-5) ● HBIg 5,000 units IV adjust to keep HBsAb>450 units/L (Days 1-5) ● Restart nucleotide or nucleoside analogue as per Hepatologist	● Check HBsAb blood level (Days 1-5) ● HBIg 5,000 units IV adjust to keep HBsAb>450 units/L (Days 1-5) ● Restart nucleotide or nucleoside analogue as per Hepatologist	● Check HBsAb blood level (Days 1-5) ● HBIg 5,000 units IV adjust to keep HBsAb>450 units/L (Days 1-5) ● Restart nucleotide or nucleoside analogue as per Hepatologist

	POD#_ SICU Date:	POD#_ SICU Date:	POD#_ SICU Date:	POD#_ SICU Date:	Transition Criteria To Transfer to Farr10 (CHECK BOXES IF MET)
NOTES	● MD and nursing to review and reconcile all pre-transplant medication ● Pre-op meds restarted as appropriate	● MD and nursing to review and reconcile all pre-transplant medication ● Pre-op meds restarted as appropriate	● MD and nursing to review and reconcile all pre-transplant medication ● Pre-op meds restarted as appropriate	● MD and nursing to review and reconcile all pre-transplant medication ● Pre-op meds restarted as appropriate	☐ All pre-op and post-op medications reviewed and reconciled by MD and nursing
TESTS	● VS per SICU protocol (see trigger criteria at right) ● Weight daily ● Strict I & O ● Labs q12h, if stable reduce to q day ● Finger stick glucose (target <120) ● CXR if still intubated ● ABG q1h after all vent changes or q8h until extubated, then q24h when stable ● HBV-Quant HBsAb titer (if on HBIg) ● **Tacrolimus level q 0730 (12 hour trough)** ● **Hepatic Duplex by Radiology at bedside (living donor recipients only)**	● VS per SICU protocol (see trigger criteria at right) ● Weight daily ● Strict I & O ● Labs q12h, if stable reduce to q day ● Finger stick glucose (target <120) ● CXR if still intubated ● ABG q1h after all vent changes or q8h until extubated, then q24h when stable ● HBV-Quant HBsAb titer (if on HBIg) ● **Tacrolimus level q 0730 (12 hour trough)** ● **Hepatic Duplex by Radiology at bedside (living donor recipients only)**	● VS per SICU protocol (see trigger criteria at right) ● Weight daily ● Strict I & O ● Labs q12h, if stable reduce to q day ● Finger stick glucose (target <120) ● CXR if still intubated ● ABG q1h after all vent changes or q8huntil extubated, then q24h when stable ● HBV-Quant HBsAb titer (if on HBIg) ● **Tacrolimus level q 0730 (12 hour trough)** ● **Hepatic Duplex by Radiology at bedside (living donor recipients only)**	● VS per SICU protocol (see trigger criteria at right) ● Weight daily ● Strict I & O ● Labs q12h, if stable reduce to q day ● Finger stick glucose (target <120) ● CXR if still intubated ● ABG q1h after all vent changes or q8h until extubated, then q24h when stable ● HBV-Quant HBsAb titer (if on HBIg) ● **Tacrolimus level q 0730 (12 hour trough)** ● **Hepatic Duplex by Radiology at bedside (living donor recipients only)**	
CARDIOVASCULAR	● Same as prior day	● Same as prior day	● Same as prior day	● Same as prior day	☐ Stable hemodynamics and cardiac rhythm ☐ No active bleeding and stable Hct INR, plt count ☐ No ongoing transfusion requirements
RESPIRATORY	● Same as prior day	● Same as prior day	● Same as prior day	● Same as prior day	☐ Extubated ☐ **O_2 sats >92% on <2 L nasal cannula** ☐ **Most recent CXR: No evidence of new process or fluid overload** ☐ **Able to clear own secretions**
IV FLUIDS/RENAL	● Same as prior day ● Assess volume status and consider ↓ IVF	● Same as prior day ● Assess volume status and consider ↓ IVF	● Same as prior day ● Assess volume status and consider ↓ IVF	● Same as prior day ● Assess volume status and consider ↓ IVF	☐ Weight trending down towards baseline dry weight
DRAINS, LINES & WOUND CARE	Lines/drains/tubes in place: ☐ Periph IV ☐ Swan ☐ Roux tube ☐ A-line ☐ JP X 2 ☐ ICP ☐ R IJ ☐ T-tube ☐ Foley **MANAGEMENT of remaining drains, lines and wound care as previous day** ● **Dressing change AND replace DC:** ● **Lateral JP when <200cc serous fluid/day-leave in if bloody or bilious** ● **Medial JP when <200cc serous fluid/day and t-tube clamped if present and cholangiogram shows no leak and output is not bloody or bilious** ● **NG same as previous day**	Lines/drains/tubes in place: ☐ Periph IV ☐ Swan ☐ Roux tube ☐ A-line ☐ JP X 2 ☐ ICP ☐ R IJ ☐ T-tube ☐ Foley **MANAGEMENT of remaining drains, lines and wound care as previous day** ● **Dressing change AND replace DC:** ● **Lateral JP when <200cc serous fluid/day-leave in if bloody or bilious** ● **Medial JP when <200cc serous fluid/day and t-tube clamped if present and cholangiogram shows no leak and output is not bloody or bilious** ● **NG same as previous day**	Lines/drains/tubes in place: ☐ Periph IV ☐ Swan ☐ Roux tube ☐ A-line ☐ JP X 2 ☐ ICP ☐ R IJ ☐ T-tube ☐ Foley **MANAGEMENT of remaining drains, lines and wound care as previous day** ● **Dressing change AND replace DC:** ● **Lateral JP when <200cc serous fluid/day-leave in if bloody or bilious** ● **Medial JP when <200cc serous fluid/day and t-tube clamped if present and cholangiogram shows no leak and output is not bloody or bilious** ● **NG same as previous day**	Lines/drains/tubes in place: ☐ Periph IV ☐ Swan ☐ Roux tube ☐ A-line ☐ JP X 2 ☐ ICP ☐ R IJ ☐ T-tube ☐ Foley **MANAGEMENT of remaining drains, lines and wound care as previous day** ● **Dressing change AND replace DC:** ● **Lateral JP when <200cc serous fluid/day-leave in if bloody or bilious** ● **Medial JP when <200cc serous fluid/day and t-tube clamped if present and cholangiogram shows no leak and output is not bloody or bilious** ● **NG same as previous day**	☐ Arterial line removed ☐ Swan Ganz removed ☐ ICP monitor removed (if present) ☐ R IJ trauma line replaced with triple lumen ☐ Assess if central lines can be removed
GI/ENDOCRINE/ NUTRITION	● *Same as prior day ● Assess glucose control ● Maintain glucose <120 per SICU protocol ● Start clears if no aspiration risk **AND** NG out ● Advance diet to regular if tolerating clears ● TF or TPN if applicable	● *Same as prior day ● Assess glucose control ● Maintain glucose <120 per SICU protocol ● Start clears if no aspiration risk **AND** NG out ● Advance diet to regular if tolerating clears ● TF or TPN if applicable	● *Same as prior day ● Assess glucose control ● Maintain glucose <120 per SICU protocol ● Start clears if no aspiration risk **AND** NG out ● Advance diet to regular if tolerating clears ● TF or TPN if applicable	● *Same as prior day ● Assess glucose control ● Maintain glucose <120 per SICU protocol ● Start clears if no aspiration risk **AND** NG out ● Advance diet to regular if tolerating clears ● TF or TPN if applicable	
NEURO/PAIN/ COMFORT	Target Pain Score 1-4 ● Same as prior day for pain and comfort ● **Propofol if intubated and needed. Reduce to facilitate extubation.** ● **Daily wake-up if on sedation**	Target Pain Score 1-4 ● Same as prior day for pain and comfort ● **Propofol if intubated and needed. Reduce to facilitate extubation.** ● **Daily wake-up if on sedation**	Target Pain Score 1-4 ● Same as prior day for pain and comfort ● **Propofol if intubated and needed. Reduce to facilitate extubation.** ● **Daily wake-up if on sedation**	Target Pain Score 1-4 ● Same as prior day for pain and comfort ● **Propofol if intubated and needed. Reduce to facilitate extubation.** ● **Daily wake-up if on sedation**	☐ Adequate pain control 1-4
IMMUNOSUPPRESSION	● Mycophenolate Mofetil 1000mg NG/PO BID ● Steroid per protocol ● Tacrolimus NG/PO q12h **(renal adjust)** to achieve target trough level 10-12ng/ml	● Mycophenolate Mofetil 1000mg NG/PO BID ● Steroid per protocol ● Tacrolimus NG/PO q12h **(renal adjust)** to achieve target trough level 10-12ng/ml	● Mycophenolate Mofetil 1000mg NG/PO BID ● Steroid per protocol ● Tacrolimus NG/PO q12h **(renal adjust)** to achieve target trough level 10-12ng/ml	● Mycophenolate Mofetil 1000mg NG/PO BID ● Steroid per protocol ● Tacrolimus NG/PO q12h **(renal adjust)** to achieve target trough level 10-12ng/ml	
ID	***** HAND HYGIENE***** ● Same as prior day	***** HAND HYGIENE***** ● Same as prior day	***** HAND HYGIENE***** ● Same as prior day	***** HAND HYGIENE***** ● Same as prior day	
PATIENT EDUCATION/ COPING/ MENTAL STATUS/ PSYCHOSOCIAL	● Reinforce coughing/deep breathing ● Reinforce use of incentive spirometer	● Reinforce coughing/deep breathing ● Reinforce use of incentive spirometer	● Reinforce coughing/deep breathing ● Reinforce use of incentive spirometer	● Reinforce coughing/deep breathing ● Reinforce use of incentive spirometer	☐ Alert ☐ Awake ☐ Non-combative, cooperative and safely monitored without restraint
ACTIVITY	● Same as prior day ● OOB→chair TID	● Same as prior day ● OOB→chair TID	● Same as prior day ● OOB→chair TID	● Same as prior day ● OOB→chair TID	☐ OOB→chair with stable VS
HBV/HCV/HCC	● Check HBsAb blood level (Days 1-5) ● HBIg 5,000 units IV adjust to keep HBsAb>450 units/L (Days 1-5) ● Restart nucleotide or nucleoside analogue as per Hepatologist	● Check HBsAb blood level (Days 1-5) ● HBIg 5,000 units IV adjust to keep HBsAb>450 units/L (Days 1-5) ● Restart nucleotide or nucleoside analogue as per Hepatologist	● Check HBsAb blood level (Days 1-5) ● HBIg 5,000 units IV adjust to keep HBsAb>450 units/L (Days 1-5) ● Restart nucleotide or nucleoside analogue as per Hepatologist	● Check HBsAb blood level (Days 1-5) ● HBIg 5,000 units IV adjust to keep HBsAb>450 units/L (Days 1-5) ● Restart nucleotide or nucleoside analogue as per Hepatologist	

BIDMC “Trigger” Criteria

- Heart Rate <40 or >130
- Systolic Blood Pressure < 90
- Respiratory Rate < 8 or > 30
- SaO2 <90% with Oxygen Therapy
- Urine Output <50cc in 4 hours
- Acute Change in Conscious State
- Marked Nursing Concern

SERVICE	NAME	PAGER	PHONE
Liver Transplant Coordinators	Kim Sullivan	31309	2-9831
	Erin Cavanaugh	36917	2-9832
	*On-Call Pager	39756	2-9700

TRANSFUSION TARGET GUIDE
(after POD#2 transfuse for symptoms)

NON-BLEEDING			BLEEDING OR w/ICP		
	Day 0	POD#1		Day 0	POD#1
Hct	>30	>28	Hct	>30	>30
Plt	>50k	>50k	Plt	>100k	>100k
INR	<2.0	<2.0	INR	<1.5	<1.5
Fibr	>100	>100	Fibr	>150	>150

STEROID TAPERING PROTOCOL

Methylprednisolone	☐ POD#1: 200mg IV
	☐ POD#2: 150mg IV
	☐ POD#3: 100mg IV
	☐ POD#4: 70mg IV
Prednisone	☐ POD#5: 35mg PO
	POD#6-20: 20mg PO q day then decrease by 2.5mg every 10 days unless prior rejection

VALGANCICLOVIR
Maintenance/Prophylaxis Renal Dose Adjust

CrCl	Dose	Interval
>60ml/min	900mg	Daily
40-59ml/min	450mg	Daily
25-39ml/min	450mg	q 48h
10-24ml/min	450mg	2X/week
<10ml/min	Use Ganciclovir	

CREATININE CLEARANCE EQUATIONS

MALE

IBW=50kg+(2.3kgxea.in>60 in)______Kg
EST. CrCl=(140-age) (IBW)/(72) (SrCr)=______mL/min

FEMALE

IBW=45Kg+(2.3kgxea.in>60in)_______Kg
EST. CrCl=(140-age) (IBW)x(0.85)/(72) (SrCr)=______ mL/min

Contact BIDMC Transplant Institute at www.bidmc.org/transplantcare for further information
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