## Kidney Transplant Clinical Practice Guideline
### Phase II: Post-Op Management

Developed through the efforts of Children’s Healthcare of Atlanta and physicians on Children’s medical staff in the interest of advancing pediatric healthcare. This pathway is a general guideline and does not represent a professional care standard governing providers’ obligation to patients. Ultimately the patient’s physician must determine the most appropriate care. © 2021 Children’s Healthcare of Atlanta, Inc.

### Timeline
#### Day of Surgery
- **Unit**: PICU
- **Assessment & Monitoring**: Vital Signs Post Procedure ICU: BP, HR, RR, CVP, every 30 min x 6 hrs, then Q1H; Temp Q4H, Cardiac Monitor, Continuous Pulse Ox, Weigh QAM, Strict I&O Q30 min x 6H, then QH
- **Laboratory**: Draw Renal Function Panel, Heparin Assay and CBC with Diff at 1800, 0000, 0600
- **Radiology**: As medically indicated
- **Lines & Drains**: Foley Catheter: To closed drainage. May flush with 5-10 ml NS PRN. If unable to flush or bladder distention identified, notify MD.
- **IVF Therapy**: Art Line/CVL: NS with 2 units/ml heparin IV continuous at 2 ml/hr Insensible Loss Replacement: D5 1/2NS Urine Output Replacement: (NS or 1/2NS) Replace urine output mL/mL every 30 min x 6H, then Q1H
- **Nutrition/ GI**: NPO
- **Activity**: Fall Risk Assessment per Nursing
- **Consults**: Critical Care, Pharmacy
- **Discharge Planning**: Case Management (Once transferred to 6E)

#### Post-op Day 1
- **Unit**: PICU/6 East
- **Assessment & Monitoring**: PICU: BP, HR, RR, Q1H; Temp Q4H, Cardiac Monitor, Continuous Pulse Ox, Weigh QAM, Strict I&O QH 6E: Vital Signs Q4H, Strict I&O Q2H, Weigh QAM
- **Laboratory**: Draw Renal Function Panel, Heparin Assay and CBC with Diff at 0600, 1800
- **Radiology**: As medically indicated (Chest X-ray and US)
- **Lines & Drains**: Foley Catheter: To closed drainage. May flush with 5-10 ml NS PRN. If unable to flush or bladder distention identified, notify MD.
- **IVF Therapy**: Art Line/CVL: NS with 2 units/ml heparin IV continuous at 2 ml/hr Insensible Loss Replacement: D5 1/2NS Urine Output Replacement: (NS or 1/2NS) Replace urine output mL/mL Q1H for total 24 hours post-op
- **Nutrition/ GI**: Advance Diet per Surgery Recommendations
- **Activity**: Out of Bed at least 3 times daily and as tolerated
- **Consults**: Critical Care, Pharmacy
- **Discharge Planning**: Case Management (Once transferred to 6E)

#### Post-op Day 2
- **Unit**: PICU/6 East
- **Assessment & Monitoring**: PICU: BP, HR, RR, Q2H; Temp Q4H, Cardiac Monitor, Continuous Pulse Ox, Weigh QAM, Strict I&O QH 6E: Vital Signs Q4H, Strict I&O Q2H, Weigh QAM
- **Laboratory**: Renal Function Panel, Tacrolimus (trough level), CBC with Diff (Draw all labs at 0600)
- **Radiology**: As medically indicated (Chest X-ray and US)
- **Lines & Drains**: Foley Catheter: To closed drainage. May flush with 5-10 ml NS PRN. If unable to flush or bladder distention identified, notify MD.
- **IVF Therapy**: Art Line/CVL: NS with 2 units/ml heparin IV continuous at 2 ml/hr Insensible Loss Replacement: D5 1/2NS Urine Output Replacement: (NS or 1/2NS) Replace urine output mL/mL Q1H for total 24 hours post-op
- **Nutrition/ GI**: Advance Diet per Surgery Recommendations (Convert IV Meds to PO)
- **Activity**: Out of Bed at least 3 times daily and as tolerated
- **Consults**: Critical Care, Pharmacy
- **Discharge Planning**: Case Management (Once transferred to 6E), Pharmacy Education (If appropriate)

#### Post-op Day 3
- **Unit**: 6 East
- **Assessment & Monitoring**: Vital Signs Q4H, Strict I&O Q2H, Weigh QAM
- **Laboratory**: CMP (Don’t draw RFP on day CMP drawn), Tacrolimus (trough level), Phosphorous, Uric Acid, UA Reflex to Culture, CBC with Diff (Draw all labs at 0600)
- **Radiology**: As medically indicated (Chest X-ray and US)
- **Lines & Drains**: Foley Catheter: To closed drainage. May flush with 5-10 ml NS PRN. If unable to flush or bladder distention identified, notify MD.
- **IVF Therapy**: Art Line/CVL: NS with 2 units/ml heparin IV continuous at 2 ml/hr Insensible Loss Replacement: D5 1/2NS Urine Output Replacement: (NS or 1/2NS) Replace urine output mL/mL Q1H for total 24 hours post-op
- **Nutrition/ GI**: Regular Diet
- **Activity**: Out of Bed at least 3 times daily and as tolerated
- **Consults**: Critical Care, Pharmacy
- **Discharge Planning**: Case Management (Once transferred to 6E), Pharmacy Education (If appropriate)

#### Post-op Days 4-7
- **Unit**: 6 East
- **Assessment & Monitoring**: Vital Signs Q4H, Strict I&O, Weigh QAM
- **Laboratory**: Renal Function Panel, Tacrolimus (trough level), CBC with Diff (Draw all labs at 0600)
- **Radiology**: As medically indicated (Chest X-ray and US)
- **Lines & Drains**: Foley Catheter: To closed drainage. May flush with 5-10 ml NS PRN. If unable to flush or bladder distention identified, notify MD.
- **IVF Therapy**: Art Line/CVL: NS with 2 units/ml heparin IV continuous at 2 ml/hr Insensible Loss Replacement: D5 1/2NS Urine Output Replacement: (NS or 1/2NS) Replace urine output mL/mL Q1H for total 24 hours post-op
- **Nutrition/ GI**: Regular Diet
- **Activity**: Out of Bed at least 3 times daily and as tolerated
- **Consults**: Critical Care, Pharmacy
- **Discharge Planning**: Pharmacy Education (If appropriate)

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See Medication Table and Discharge Box On Back
# Medication Table

<table>
<thead>
<tr>
<th>Medication</th>
<th>Dosage</th>
<th>Max Dose</th>
<th>Comments</th>
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<tbody>
<tr>
<td>**Pediatric Dose: &lt;35 kg</td>
<td>Adult Dose: &gt;35 kg**</td>
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</tbody>
</table>
| trimethoprim-sulfamethoxazole     | **Peds Dose:** 5 mg/kg PO suspension - Start POD 4  
**Adult Dose:** 5 mg/kg PO tablet - Start POD 4 | 160 mg/dose | Give every Monday, Wednesday, Friday                                    |
| morphine                         | 0.05-0.1 mg/kg IV Q2H PRN pain                                       | 10 mg/dose | Discontinue if patient on PCA                                            |
| hydrocodone -APAP (norco tablets) | 0.05-0.2 mg/kg PO Q4H prn pain                                      | 100 mg hydrocodone-  
325 mg APAP per dose  
(based on hydrocodone component) | Not to exceed 75 mg/kg/day of APAP from all sources |
| oxycodone                        | 0.1-0.2 mg/kg PO Q4H prn pain                                        | 10 mg/dose |                                                                          |
| famotidine (Pepcid)               | 0.25 mg/kg IV Q12h                                                   | 20 mg/dose | Convert to PO when no longer NPO                                        |
| methylprednisolone (Solu-Medrol)  | 10 mg/kg IV x1 - Give POD 1                                         | 500 mg/dose |                                                                          |
| prednisolone sodium phosphate    | **Peds Dose:** POD 2-3: 20 mg/m2 PO BID  
POD 4-6: 25 mg/m2 PO QAM  
POD 7-13: 15 mg/m2 PO QAM  
POD 14-20: 10 mg/m2 PO QAM  
POD 21-30: 5 mg/m2 PO QAM  
**Adult Dose:** POD 2-3: 30 mg PO BID  
POD 4-6: 40 mg PO QAM  
POD 7-13: 20 mg PO QAM  
POD 14-20: 10 mg PO QAM  
POD 21-30: 5 mg PO QAM | 60 mg/day | Daily Tacrolimus blood level should be drawn before AM dose is given and 12 hours after PM dose. Pediatric nephrologist will adjust dose. |
| prednisone (Deltasone)           | **Peds Dose:** 10 mg IV x1 - Give POD 4  
**Adult Dose:** 20 mg IV x1 - Give POD 4 |          | Pediatric nephrologist will adjust dose.                                |
| tacrolimus (Prograf)             | 0.1 mg/kg PO Q12H - Start POD 1                                      | 5 mg/dose |                                                                          |
| basiliximab (Simulect)           | **Peds Dose:** 10 mg IV x1 - Give POD 4  
**Adult Dose:** 20 mg IV x1 - Give POD 4 |          | Pediatric nephrologist will adjust dose.                                |
| mycophenolate mofetil (Cellcept) | 400 mg/m2 IV BID                                                    | 1000 mg/dose |                                                                          |
| valganciclovir (Valcyte)         | **Peds Dose:** 15 mg/kg PO suspension QD - Start POD 4  
**Adult Dose:** 300 mg PO tablets QD - Start POD 4 | 300 mg/dose | Do not give to patients where both donor and recipient are CMV negative |
| heparin drip                     | 5 units/kg/hr IV continuous                                          | 500 units/hr | Do not titrate unless directed by nephrology and transplant surgery     |