APPENDIX 3

RECOMMENDATIONS OF THE SECRETARY’S ADVISORY COMMITTEE ON ORGAN TRANSPLANTATION (ACOT)

Critical Pathway for the Organ Donor

<table>
<thead>
<tr>
<th>Collaborative Practice</th>
<th>Phase I Referral</th>
<th>Phase II Declaration of Brain Death and Consent</th>
<th>Phase III Donor Evaluation</th>
<th>Phase IV Donor Management</th>
<th>Phase V Recovery Phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>The following professionals may be involved to enhance the donation process. Check all that apply.</td>
<td>Notify physician regarding OPO referral</td>
<td>Brain death documented Time Date</td>
<td>OPC writes new orders</td>
<td>OPC writes new orders</td>
<td>OPC writes new orders</td>
</tr>
<tr>
<td>Physician</td>
<td>Contact OPO ref: Potential donor with severe brain insult</td>
<td>Pt accepted as potential donor</td>
<td>Organ placement</td>
<td>Organ placement</td>
<td>Organ placement</td>
</tr>
<tr>
<td>Critical care RN</td>
<td>OPC on site and begins evaluation: Time Date</td>
<td>Plan family approach with OPC</td>
<td>OPC sets tentative OR time</td>
<td>OPC sets tentative OR time</td>
<td>OPC sets tentative OR time</td>
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<tr>
<td>Organ Procurement Organization (OPO)</td>
<td>Ht Wt as documented</td>
<td>Offer support services to family (clergy, etc)</td>
<td>Notify OR &amp; anesthesiology of pending case</td>
<td>Notify OR &amp; anesthesiology of pending case</td>
<td>Notify OR &amp; anesthesiology of pending case</td>
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<tr>
<td>OPO Coordinator (OPC)</td>
<td>ABO as documented</td>
<td>OPC/Hospital staff talks to family about donation</td>
<td>Notify house supervisor of pending donation</td>
<td>Notify house supervisor of pending donation</td>
<td>Notify house supervisor of pending donation</td>
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<tr>
<td>Medical Examiner (ME)/Coroner</td>
<td>Notify house supervisor/charge nurse of presence on unit</td>
<td>Family accepts donation</td>
<td>Notify house supervisor of pending donation</td>
<td>Notify house supervisor of pending donation</td>
<td>Notify house supervisor of pending donation</td>
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<tr>
<td>Respiratory</td>
<td></td>
<td>OPC obtains signed consent- &amp; medical/social history</td>
<td>Chest &amp; abdominal circumference</td>
<td>Chest &amp; abdominal circumference</td>
<td>Chest &amp; abdominal circumference</td>
</tr>
<tr>
<td>Laboratory</td>
<td></td>
<td>Time Date</td>
<td>Lung measurements per CXR by OPC</td>
<td>Lung measurements per CXR by OPC</td>
<td>Lung measurements per CXR by OPC</td>
</tr>
<tr>
<td>Radiology</td>
<td></td>
<td></td>
<td>Cardiology consult as requested by OPC</td>
<td>Cardiology consult as requested by OPC</td>
<td>Cardiology consult as requested by OPC</td>
</tr>
<tr>
<td>Anesthesiology</td>
<td></td>
<td></td>
<td>Organ recovery process discontinued – donor organs unsuitable for transplantation</td>
<td>Organ recovery process discontinued – donor organs unsuitable for transplantation</td>
<td>Organ recovery process discontinued – donor organs unsuitable for transplantation</td>
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<td>OR/Surgery staff</td>
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<tr>
<td>Clergy</td>
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<tr>
<td>Social worker</td>
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</tr>
</tbody>
</table>
### Labs/ Diagnostics
- Review previous lab results
- Review previous hemodynamics
- Blood chemistry
- CBC + diff
- UA
- C & S
- PT, PTT
- ABO
- A Subtype
- Liver function tests
- Blood culture X 2 / 15 minutes to 1 hour apart
- Sputum Gram Stain & C & S
- Type & Cross Match
- # units PRBCs
- CXR
- ABGs
- EKG
- Echo
- Consider cardiac cath
- Consider bronchoscopy
- Determine need for additional lab testing
- CXR after line placement (if done)
- Serum electrolytes
- H & H after PRBC Rx
- PT, PTT
- BUN, serum creatinine after correcting fluid deficit
- Notify OPC for
  - PT >14
  - PTT < 28
  - Urine output is
    - < 1 mL/Kg/hr
    - > 3 mL/Kg/hr
  - Hct < 30 / Hgb < 10
  - Na > 150 mEq/L
- Labs drawn in OR as per surgeon or OPC request
- Communicate with pathology: Bx liver and/or kidneys as indicated

### Respiratory
- Pt on ventilator
- Suction q 2 hr
- Reposition q 2 hr
- Prep for apnea testing: set FiO₂ @ 100% and anticipate need to decrease rate if PCO₂ < 45 mm Hg
- Maximize ventilator settings to achieve SaO₂ 98 – 99%
- PEEP = 5cm O₂ challenge for lung placement FiO₂ @ 100%, PEEP @ 5 X 10 min
- ABGs as ordered
- Notify OPC for
  - BP < 90 systolic
  - HR < 70 or > 120
  - CVP < 4 or > 11
  - PaO₂ < 90 or
  - SaO₂ < 95%
- Portable O₂ @ 100% FiO₂ for transport to OR
- Ambu bag and PEEP valve
- Move to OR

### Treatments/ Ongoing Care
- Use warming/cooling blanket to maintain temperature at 36.5°C – 37.5°C
- NG to low intermittent suction
- Check NG placement & output
- Obtain actual Ht _____ & Wt _____ if not previously obtained
- Medication as requested by OPC
- Fluid resuscitation – consider crystalloids
- DC antidiuretics
- Diuretics as needed

### Medications
- Medication as requested by OPC
- DC antidiuretics
- Diuretics as needed

2 Set OR temp as directed by OPC
2 Post mortem care at conclusion of case
| Optimal Outcomes | The potential donor is identified & a referral is made to the OPO. | The family is offered the option of donation & their decision is supported. | The donor is evaluated & found to be a suitable candidate for donation. | Optimal organ function is maintained. | All potentially suitable, consented organs are recovered for transplant. |

Shaded areas indicate Organ Procurement Coordinator (OPC) Activities

- colloid, blood
- DC meds except pressors & antibiotics
- Broad-spectrum antibiotic if not previously ordered
- Vasopressor support to maintain BP > 90 mm Hg systolic
- Electrolyte imbalance: consider K, Ca, PO₄, Mg replacement
- Hyperglycemia: consider Insulin drip
- Oliguria: consider diuretics
- Diabetes insipidus: consider antidiuretics
- Paralytic as indicated for spinal reflexes

- 350 U heparin/kg or as directed by surgeon
# Cardio-Thoracic Donor Management

1. **Early echocardiogram for all donors** - Insert pulmonary artery catheter (PAC) to monitor patient management (placement of the PAC is particularly relevant in patients with an EF < 45% or on high dose inotropes.)
   - use aggressive donor resuscitation as outlined below

2. **Electrolytes**
   - Maintain Na < 150 meq/dl
   - Maintain K+ > 4.0
   - Correct acidosis with Na Bicarbonate and mild to moderate hyperventilation (pCO₂ 30-35 mm Hg)

3. **Ventilation**
   - Maintain tidal volume 10-15 ml/kg
   - Keep peak airway pressures < 30 mm Hg
   - Maintain a mild respiratory alkalosis (pCO₂ 30-35 mm Hg).

4. **Recommend use of hormonal resuscitation as part of a comprehensive donor management protocol — Key elements**
   - Tri-iodothyronine (T3): 4 mcg bolus; 3 mcg/hr continuous infusion
   - Arginine Vasopressin: 1 unit bolus; 0.5 – 4.0 unit/hour drip (titrate SVR 800-1200 using a PA catheter)
   - Methylprednisolone: 15 mg/kg bolus (Repeat q 24° PRN)
   - Insulin: drip at a minimum rate of 1 unit/hour (titrate blood glucose to 120-180 mg/dl)
   - Ventilator: (See above)
   - Volume Resuscitation: Use of colloid and avoidance of anemia are important in preventing pulmonary edema
     - albumin if PT and PTT are normal
     - fresh frozen plasma if PT and PTT abnormal (value ≥ 1.5 X control)
     - packed red blood cells to maintain a PCWP of 8-12 mm Hg and Hct > 10.0 mg/dl

5. **When patient is stabilized/optimized** repeat echocardiogram. (An unstable donor has not met 2 or more of the following criteria.)
   - Mean Arterial Pressure ≥ 60
   - CVP ≤ 12 mm Hg
   - PCWP ≤ 12 mm Hg
   - SVR 800-1200 dyne/sec/cm⁵
   - Cardiac Index ≥ 2.5 l/min/M²
   - Left Ventricular Stroke Work Index > 15
   - dopamine dosage < 10 mcg/kg/min

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