

APPENDIX 3

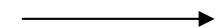
RECOMMENDATIONS OF THE SECRETARY'S ADVISORY COMMITTEE ON ORGAN TRANSPLANTATION (ACOT)

Critical Pathway for the Organ Donor



| Collaborative Practice | Phase I Referral | Phase II Declaration of Brain Death and Consent | Phase III Donor Evaluation | Phase IV Donor Management | Phase V Recovery Phase |
|--|--|--|---|--|--|
| <p>The following professionals may be involved to enhance the donation process. Check all that apply.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Physician <input type="checkbox"/> Critical care RN <input type="checkbox"/> Organ Procurement Organization (OPO) <input type="checkbox"/> OPO Coordinator (OPC) <input type="checkbox"/> Medical Examiner (ME)/Coroner <input type="checkbox"/> Respiratory <input type="checkbox"/> Laboratory <input type="checkbox"/> Radiology <input type="checkbox"/> Anesthesiology <input type="checkbox"/> OR/Surgery staff <input type="checkbox"/> Clergy <input type="checkbox"/> Social worker | <ul style="list-style-type: none"> <input type="checkbox"/> Notify physician regarding OPO referral <input type="checkbox"/> Contact OPO ref: Potential donor with severe brain insult <input type="checkbox"/> OPC on site and begins evaluation: Time ___ Date _____ <input type="checkbox"/> Ht ___ Wt ___ as documented <input type="checkbox"/> ABO as documented <input type="checkbox"/> Notify house supervisor/charge nurse of presence on unit | <ul style="list-style-type: none"> <input type="checkbox"/> Brain death documented Time _____ Date _____ <input type="checkbox"/> Pt accepted as potential donor <input type="checkbox"/> MD notifies family of death <input type="checkbox"/> Plan family approach with OPC <input type="checkbox"/> Offer support services to family (clergy, etc) <input type="checkbox"/> OPC/Hospital staff talks to family about donation <input type="checkbox"/> Family accepts donation <input type="checkbox"/> OPC obtains signed consent- & medical/social history Time _____ Date _____ <input type="checkbox"/> ME/Coroner notified <input type="checkbox"/> ME/Coroner releases body for donation <input type="checkbox"/> Family/ME/Coroner denies donation – stop pathway – initiate post-mortem protocol – support family. | <ul style="list-style-type: none"> <input type="checkbox"/> Obtain pre/post transfusion blood for serology testing (HIV, Hepatitis, VDRL, CMV) <input type="checkbox"/> Obtain lymph nodes and/or blood for tissue typing <input type="checkbox"/> Notify OR & anesthesiology of pending case <input type="checkbox"/> Notify house supervisor of pending donation <input type="checkbox"/> Chest & abdominal circumference <input type="checkbox"/> Lung measurements per CXR by OPC <input type="checkbox"/> Cardiology consult as requested by OPC <input type="checkbox"/> Organ recovery process discontinued – donor organs unsuitable for transplantation | <ul style="list-style-type: none"> <input type="checkbox"/> OPC writes new orders <input type="checkbox"/> Organ placement <input type="checkbox"/> OPC sets tentative OR time <input type="checkbox"/> Insert arterial line/ CVP/2 large-bore IVs | <ul style="list-style-type: none"> <input type="checkbox"/> Checklist for OR <input type="checkbox"/> Supplies given to OR <input type="checkbox"/> Prepare patient for transport to OR <ul style="list-style-type: none"> <input type="checkbox"/> IVs <input type="checkbox"/> Pumps <input type="checkbox"/> O₂ <input type="checkbox"/> Ambu <input type="checkbox"/> Peep valve <input type="checkbox"/> Transport to OR Date _____ Time _____ <input type="checkbox"/> OR nurse reviews consent & brain death documentation & checks patient's ID band |

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| Labs/ Diagnostics | | <input type="checkbox"/> Review previous lab results <input type="checkbox"/> Review previous hemodynamics | <input type="checkbox"/> Blood chemistry <input type="checkbox"/> CBC + diff <input type="checkbox"/> UA <input type="checkbox"/> C & S <input type="checkbox"/> PT, PTT <input type="checkbox"/> ABO <input type="checkbox"/> A Subtype <input type="checkbox"/> Liver function tests <input type="checkbox"/> Blood culture X 2 / 15 minutes to 1 hour apart <input type="checkbox"/> Sputum Gram Stain & C & S <input type="checkbox"/> Type & Cross Match # units PRBCs <input type="checkbox"/> CXR <input type="checkbox"/> ABGs <input type="checkbox"/> EKG <input type="checkbox"/> Echo <input type="checkbox"/> Consider cardiac cath <input type="checkbox"/> Consider bronchoscopy | <input type="checkbox"/> Determine need for additional lab testing <input type="checkbox"/> CXR after line placement (if done) <input type="checkbox"/> Serum electrolytes <input type="checkbox"/> H & H after PRBC Rx <input type="checkbox"/> PT, PTT <input type="checkbox"/> BUN, serum creatinine after correcting fluid deficit <input type="checkbox"/> 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 | <input type="checkbox"/> Labs drawn in OR as per surgeon or OPC request <input type="checkbox"/> Communicate with pathology: Bx liver and/or kidneys as indicated |
| Respiratory | <input type="checkbox"/> Pt on ventilator <input type="checkbox"/> Suction q 2 hr <input type="checkbox"/> Reposition q 2 hr | Prep for apnea testing: set FiO ₂ @ 100% and anticipate need to decrease rate if PCO ₂ < 45 mm Hg | <input type="checkbox"/> Maximize ventilator settings to achieve SaO ₂ 98 – 99% <input type="checkbox"/> PEEP = 5cm O ₂ challenge for lung placement FiO ₂ @ 100%, PEEP @ 5 X 10 min <input type="checkbox"/> ABGs as ordered <input type="checkbox"/> VS q 1° | <input type="checkbox"/> Notify OPC for ___ BP < 90 systolic ___ HR < 70 or > 120 ___ CVP < 4 or > 11 ___ PaO ₂ < 90 or ___ SaO ₂ < 95% | <input type="checkbox"/> Portable O ₂ @ 100% FiO ₂ for transport to OR <input type="checkbox"/> Ambu bag and PEEP valve <input type="checkbox"/> Move to OR |
| Treatments/ Ongoing Care | | <input type="checkbox"/> Use warming/cooling blanket to maintain temperature at 36.5° C – 37.5 °C <input type="checkbox"/> NG to low intermittent suction | <input type="checkbox"/> Check NG placement & output <input type="checkbox"/> Obtain actual Ht _____ & Wt _____ if not previously obtained | | Set OR temp as directed by OPC Post mortem care at conclusion of case |
| Medications | | | <input type="checkbox"/> Medication as requested by OPC | <input type="checkbox"/> Fluid resuscitation – consider crystalloids, | <input type="checkbox"/> DC antidiuretics <input type="checkbox"/> Diuretics as needed |



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| | | | | colloids, blood <input type="checkbox"/> DC meds except pressors & antibiotics <input type="checkbox"/> Broad-spectrum antibiotic if not previously ordered <input type="checkbox"/> Vasopressor support to maintain BP > 90 mm Hg systolic <input type="checkbox"/> Electrolyte imbalance: consider K, Ca, PO ₄ , Mg replacement <input type="checkbox"/> Hyperglycemia: consider Insulin drip <input type="checkbox"/> Oliguria: consider diuretics <input type="checkbox"/> Diabetes insipidus: consider antidiuretics <input type="checkbox"/> Paralytic as indicated for spinal reflexes | <input type="checkbox"/> 350 U heparin/kg or as directed by surgeon |
| 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

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

The Critical Pathway was developed under contract with the U.S. Department of Health and Human Services,
Health Resources and Services Administration, Division of Transplantation.