

Donor Management Goals and Dosing Guidelines

Donor Management Goals

Hemodynamic parameters

- Maintain MAP > 70 mm Hg (adults)
Maintain systolic blood pressure appropriate for age (pediatrics)
 - CVP 5-10 mm Hg
 - Dopamine < 10 mcg/kg/min or Single inotropic agent to maintain MAP
 - PCWP < 12 mm Hg *
 - SVR 800-1200 dynes/sec/cm5 *
 - Cardiac index > 2.5 l/min/m2 *
- * If measured*

Oxygenation and ventilation

- Maintain PaO₂ > 100 mmHg
- Normalize PaCO₂ 35 - 45 mmHg
- FiO₂ 0.40
- Tidal volumes 8-10 cc/kg
- PEEP 5 cm H₂O
- Arterial pH 7.32-7.48

Fluid and electrolytes

- Serum Na⁺ 130 – 160 meq/L
- Serum K⁺ 3 – 5.0 meq/L
- Serum glucose <150 mg/dL

Thermal regulation

- Core body temperature
36 – 37.5° C or 96.8 – 99.6° F

- Donor management will be dictated by regional standards of care and the physicians caring for the patient.
- Consultation with an intensiviste care specialist and transplant coordinators is essential to ensure the best possible outcome for organ recovery.
- Become familiar with the intensivists, recovery protocols, and transplant surgery guidelines in the institutions that you serve.

Suggested adult dosing guidelines for hormonal replacement therapy used by CDS

Drug	Dose
Levothyroxine (Synthroid®)	200 mcg IVP
Methylprednisolone (Solumedrol®)	2 grams IV
Insulin/Glucose	1 ampule of D 50 (hold if Glucose >250) 20 units of regular insulin IV
Vasopressin (Pitressin®)	25 units of Vasopressin in 250 ml normal saline 2 units bolused over 15 minutes IV 0.5 - 3 units/hour continuous IV infusion titrated to maintain urine output 100-300 ml/kg/hour OR 0.04 units/hour to maintain systolic blood pressure 100 mmHg (IV = intravenous)

THE ANESTHESIOLOGIST'S ROLE IN ORGAN RECOVERY

PATIENT OPERATING ROOM GOALS/STANDARDS (Adult and Pediatric)

- Carolina Donor Services (CDS) Coordinator will be present in the operating room and will be an active partner in the care of the donor.
- Confirm 4 units of packed red cells have been ordered (typed and cross-matched) before transport. Have 2 units in the operating room at the time of organ recovery.

For pediatric patients:

- *Confirm sufficient packed red cells have been ordered (typed and cross-matched) based upon weight. (10-15 cc/kg/transfusion). Ensure that blood for 2 transfusions is available. Have 1 transfusion volume available (10-15 cc/kg/transfusion) in the operating room at the time of organ recovery.*
- Maintain donor management goals as listed on previous page.
- Be prepared to draw labs and administer medications for changes in the above parameters as specified in the procurement protocol order set.
- Be prepared for the CDS Coordinator's request for up to 100 cc of blood draw to be used for tissue typing; sample tubes will be provided by the CDS Coordinator .

Pediatric donors will require less blood volume for sampling

- Be prepared to administer the following medications, according to established protocols, at the request of the Coordinator:
 - Lasix (up to 300 mg)
 - Mannitol (up to 100 g)
 - Heparin (up to 30,000 Units)
 - Insulin
 - Dopamine (up 20 mcg/kg/min)

Pediatric dosing will vary based upon patient weight. Medication administration should be discussed with a pediatric intensivist or anesthesiologist.

- Communicate with the Coordinator and the transplant surgeons prior to administration of additional medications. At the time of aortic cross-clamp, mechanical ventilation and cardiac monitoring may be discontinued, except in cases of lung recovery; in lung recovery cases the surgeon will provide you with specific ventilation orders.

Compiled by:

Kevin Shute, M.D. and
Thomas A. Nakagawa, M.D. FAAP, FCCM
Department of Anesthesiology
Wake Forest University School of Medicine
Winston-Salem, NC

