

## Appendix C

### Management of Screened Neonates Who Qualify for Possible Cooling

1. **Identify patients to discuss with regional cooling center within 1 hour of birth.**
  - a. After initial resuscitation and stabilization, perform screening evaluation (*Appendix A*).
  - b. If screening criteria met, call neonatologist at regional cooling center.
  - c. Discuss if patient is appropriate to remain for observation vs. transport for cooling.
  - d. If determined to be a candidate for cooling by regional cooling center, begin passive cooling (see also *Appendix D*)
2. **Turn down/off external heat sources and avoid hyperthermia**
  - a. Document time and **do not actively cool patients**. (See *Appendix D*).
3. **Monitor core (rectal) temperature closely**
  - a. **Target rectal temp = 33-34°C** (91.4 – 93.2°F) or **Axillary temp = 32-33°C** (89.6 – 91.4).
  - b. Check temp continuously/frequently (q15 min). Complete flow sheet (*Appendix H*).
  - c. Core temp may still fall <33.5C with passive cooling. Be prepared to respond (*Appendix D*).
4. **Secure vascular access** - Before peripheral vasoconstriction occurs with cooling.
  - a. Umbilical venous and arterial access, if possible.
  - b. Peripheral IV at a minimum.
5. **Maintain adequate sedation** - Keep comfortable/minimize cold stress and avoid shivering during passive cooling.
  - a. **e.g., Morphine IV** – consider prn dosing or continuous infusions as indicated in discussion with cooling center.
6. **Treat only clinical seizures** – No prophylactic antiepileptic treatments.
  - a. **Lorazepam (Ativan):** 0.1mg/kg/dose IV, repeat once prn for suspected seizures.
  - b. **Phenobarbital:** 20mg/kg IV load, for obvious clinical seizures.
7. **Expect these physiologic states in cooled infants**
  - a. Expect low baseline heart rates (80-100bpm) as patient approaches target temp.
  - b. Manage blood pressure and oxygenation as usual. Maintain normal values (see #10).
  - c. Consider volume bolus (e.g., normal saline) if perfusion compromised.
8. **Monitor electrolytes closely** - maintain normal ranges.
  - a. Fluctuations often seen in **Ca, K, Mg** levels with cooling.

9. **Avoid hypoglycemia** - maintain within high normal ranges.
  - a. Maintain **Glucose** levels > 50mg/dl.
10. Avoid iatrogenic **hyperventilation** and **hyperoxygenation**.
  - a. Target **pCO<sub>2</sub>** = **40-50** (patients may have compensatory hyperventilation).
  - b. Target **PaO<sub>2</sub>** = **60-100mmHg** and keep **oxygen saturations** = **94-98%**
11. Send **Blood cultures** and consider **IV antibiotics as indicated**
12. Send **other baseline labs** if indicated, but don't delay transport for routine labs.
  - a. CBC, differential and platelets
  - b. Coagulation panel (INR, PT/PTT), LFT, BUN/Cr.