

## **Therapeutic Hypothermia**

### **Rationale:**

Increased brain temperature following successful resuscitation from cardiac arrest has been shown to contribute to worsening ischemic brain damage. Studies have shown that lowering brain temperature decreases the ischemic damage.

### **Indications/inclusions for therapy include:**

1. Cardiopulmonary arrest with return of spontaneous circulation (ROSC)
2. Known time of cardiac arrest. Downtime of less than 1 hour is desirable. No time limit on duration of resuscitative effort.
3. Persistent coma defined as not following commands, no spontaneous eye opening, no purposeful movements to noxious stimuli; brainstem reflexes and pathological/posturing movements are permissible.
4. Blood pressure can be maintained at MAP >80 mmHg spontaneously or with low to moderate dose pressors.
5. Endotracheal intubation and mechanical ventilation required.
6. Age > 18 years.

### **Exclusion Criteria for therapy:**

1. Significant cardiac arrhythmia or hemodynamic instability (BP < 60mmHg).
2. Evidence of sepsis.
3. Known hypersensitivity to hypothermia (Sickle cell disease).
4. Alternative reason for comatose state (head trauma, drug intoxication).
5. Pregnancy with evidence of a gravida uterus.
6. Trauma patients.

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