**PHYSICIAN’S ORDER FORM**

**Hypothermia Protocol**

**Post Cardiac Arrest Comatose Patients**

<table>
<thead>
<tr>
<th>Exclusion criteria:</th>
<th>Inclusion criteria (all must be checked):</th>
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<tbody>
<tr>
<td>• Pregnancy</td>
<td>□ At least 18 years old with cardiac arrest, initial rhythm of ventricular tachycardia or fibrillation, or asystole; patients with PEA arrest may be candidates at discretion of physician</td>
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<tr>
<td>• Temperature less than 30°C after arrest</td>
<td>□ Presents within 6 hours of initial arrest</td>
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<td>• Major surgery within 14 days</td>
<td>□ Return of spontaneous circulation for at least 30 min</td>
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<tr>
<td>• Known or ongoing bleeding diathesis</td>
<td>□ Comatose (GCS less than 8) after return of spontaneous circulation</td>
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<td>• Terminal illness with DNR/DNI status</td>
<td>□ Endotracheal intubation with mechanical ventilation</td>
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<td>• Major head trauma</td>
<td>□ No other obvious reasons for coma</td>
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<td>• Ongoing life threatening arrhythmias</td>
<td>□ Hemodynamically stable, with or without pressors</td>
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<td>• Platelet count less than 50,000</td>
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<td>• Severe coagulopathy</td>
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<tr>
<td>• Refractory cardiogenic shock</td>
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<td>• Severe sepsis or septic shock</td>
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**Following orders MUST be initiated prior to start of cooling device:**

- **Sedation and Analgesia orders**
  - MUST be initiated prior to cooling
  - suggested RASS of -4 to -5
- **See Ventilator order set**
  - MUST insert OGT or NGT
- **DO NOT** initiate electrolyte replacement protocols

**Additional preparatory orders:**

- Insert esophageal temperature probe and temperature foley to monitor continuous core temperature; target cooling based on esophageal probe (primary)
- CXR to confirm esophageal probe placement
- Initiate insertion of central line and A-line

**Medications:**

- Lacrilube ophthalmic ointment every 4 hours and as needed
- Insulin drip protocol for patients with blood glucose greater than 140 mg/dL or known history of Diabetes Mellitus

**Labs and tests (ED or ICU):**

- □ Check on admission and every 8 hours until rewarming complete: CBC with diff, BMP, Mg++, Phos, ionized Calcium
- □ Check on admission: PT/PTT, fibrinogen, FSP, liver function test, albumin, ABG, lactate, urine toxicology screen
- □ Blood cultures 12 and 24 hours after initiation of hypothermia protocol
- □ 12-lead ECG on admission and every 8 hours until rewarming completed
- □ If ABG drawn and sent to lab, inform lab regarding patient’s temperature
- □ Check CK, MB, troponin I on admission and every 8 hours X 3
- □ Check K+ and Mg ++ every 8 hours until rewarming complete
- □ CT of head without contrast on admission

**Paralytic agent:**

- □ Vecuronium 100 mcg/kg IV bolus X1, then 10 mcg/kg IV every 15 minutes prn shivering; if unresponsive to narcotics
- □ Rocuronium 500 mcg/kg IV bolus X1, then 150 mcg/kg IV every 15 minutes prn shivering; if unresponsive to narcotics

**Initiate cooling device:**

- □ Activate Automatic Mode and set target temperature goal to 33°C
- □ Monitor temperature every 15 minutes during induction of hypothermia, then hourly once goal achieved
- □ Set ventilator humidifier to 31°C, resume usual protocol once hypothermia discontinued
- □ Attach Sedline sedation monitor to patient

**Rewarming:**

- □ Begin rewarming after 24 hours at 33°C or less
- □ Rewarm at: 0 17°C per hour (Gradual Mode) to target of 37°C
- □ Discontinue paralytics once rewarming starts
- □ Maintain core temperature at 36°C to 37°C post warming, times 72 hours
- □ Initiate sedation vacation once core body temperature equal to or greater than 36°C

**Consults:**

- □ Cardiology: Dr.
- □ Neurology: Dr.
- □ Critical Care: Dr.

**Date:**

**Time:**