


Date/ Time	PHYSICIAN ORDERS
	<p style="text-align: center;">Emergency Department--Post-Cardiac Arrest Hypothermia Protocol (For use only in the Adult populations)</p> <p>1. Inclusion Criteria (must have ALL of the following)</p> <ul style="list-style-type: none"> <input type="checkbox"/> Primary cardiac arrest V-tach/V-fib with return of spontaneous circulation (ROSC) <input type="checkbox"/> Intubated with mechanical ventilation <input type="checkbox"/> Treatment initiated within 6 hours of arrest <input type="checkbox"/> Systolic BP greater than 90mmHg with or without vasopressors <input type="checkbox"/> GCS less than 6 <p>2. Exclusion Criteria (ANY of the following)</p> <div style="display: flex; justify-content: space-between;"> <ul style="list-style-type: none"> <input type="checkbox"/> Intracranial hemorrhage <input type="checkbox"/> Major surgery within 14 days <input type="checkbox"/> Systemic infection/sepsis <input type="checkbox"/> DNR <input type="checkbox"/> Coma due to cause other than cardiac arrest <ul style="list-style-type: none"> <input type="checkbox"/> Known bleeding or ongoing active bleeding <input type="checkbox"/> Temperature less than 30 degrees after cardiac arrest <input type="checkbox"/> Pregnancy <input type="checkbox"/> BMI greater than 40 BMI = _____ </div> <p>3. Consult Methodist University Chest Pain Center for transfer 516-2287. They will coordinate bed assignment, nurse report, and physician report.</p> <p>4. Initiate transport to Methodist University Hospital by calling Centracom at 516-8910. Preferred method of transport is Hospital Wing.</p> <p>5. Stat lab work</p> <ul style="list-style-type: none"> • CBC with diff • CMP • Magnesium • Troponin • PT/APTT/INR • Phosphorus • CKMB • ABG • 12 Lead EKG • Portable chest x-ray (s/p intubation) • Lactate level • Whole blood glucose <p>6. Nursing</p> <ul style="list-style-type: none"> • Elevate head of bed 30 degrees at all times. (This is contraindicated for patients with recent spinal surgery or severe skin breakdown) • Place 2 large bore Peripheral IV lines or CVC (One dedicated for cooling bolus) • Infuse refrigerated Normal Saline (4° C) 30ml/kg IV over 30 minutes in a peripheral or femoral line. May repeat x1 if goal temperature not achieved. • Foley catheter with temp probe if available. If not, In & Out catheter acceptable. • VS q 15 minutes • NG/OG to LIS • Call MD for K+ less than 2.8 (Do Not Replace K+ until less than 2.8) <p>7. Paralytics (REQUIRES NURSE DOUBLE-CHECK: order, drug, dose, adequate sedation)</p> <ul style="list-style-type: none"> • Sedation and analgesia must be administered prior to and continuously during paralysis <p>CHOOSE ONE</p> <p>[] Atracurium Intermittent bolus doses PRN shivering: 400 mcg/kg IV bolus (Max 50 mg) over 3-5 min ONCE for shivering or inability to maintain target temperature of 33 °C</p> <p>[] Vecuronium Intermittent bolus doses PRN shivering: 100 mcg/kg IV bolus (Max 10 mg = 10,000 mcg) over 3-5 min ONCE for shivering or inability to maintain target temperature of 33 °C</p>
<div style="display: flex; justify-content: space-between;"> <div>Physician Signature: _____</div> <div>Physician Number: _____</div> <div>Date/Time _____</div> </div>	
<div style="display: flex; justify-content: space-between;"> <div>RN Signature _____</div> <div>Date/Time _____</div> </div>	
<div style="display: flex; justify-content: space-between; align-items: center;"> <div>ED Post Cardiac Arrest Hypothermia 20561 QM0810 091010</div> <div>Page 1 of 2</div> <div style="text-align: right;">  </div> </div>	

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	<p style="text-align: center;">Hypothermia (For use only in the Adult population).</p> <p>8. Sedation and Analgesia</p> <ul style="list-style-type: none"> GOAL of 2 per Riker Scale <p style="text-align: center;"><u>Riker Sedation Agitation Scale(SAS)</u></p> <p><input type="checkbox"/> 7: Dangerous Agitation: Pulling ETT, trying to remove catheters, climbing over bed rails, thrashing side to side</p> <p><input type="checkbox"/> 6: Very Agitated: Does not calm despite frequent verbal reminding of limits, biting ET tube</p> <p><input type="checkbox"/> 5: Agitated: Anxious or mildly agitated, attempting to sit up, calms down to verbal stimuli</p> <p><input type="checkbox"/> 4: Calm & Cooperative: Calm, awakens easily, follows commands</p> <p><input type="checkbox"/> 3: Sedated: Difficult to arouse, awakens to verbal stimuli or gentle shaking, drifts off again, follows simple commands</p> <p><input checked="" type="checkbox"/> 2: Very Sedated: Arouses to physical stimuli but does not communicate or follow commands, may move spontaneously</p> <p><input type="checkbox"/> 1: Unarousable: Minimal or no response to noxious stimuli, does not communicate or follow commands</p> <p><u>Medications</u></p> <p>Sedation (CHOOSE ONE)</p> <p><input type="checkbox"/> Propofol: Start IV infusion (prior to neuromuscular blockade) at 10 mcg/kg/min (Do not Bolus); maintain a MINIMUM propofol infusion of 10 mcg/kg/min throughout the induced hypothermia. If sedation not achieved then increase the infusion by 5 -10 mcg/kg/min every 5 min to reach a Riker SAS score of 2.</p> <p><input type="checkbox"/> Lorazepam intermittent dosing:</p> <ul style="list-style-type: none"> Give 1 - 2 mg IV Q 30 min PRN agitation (Maximum of 12 mg in a 3-hr period—Call MD if this amount is reached) If patient is oversedated, hold the dose until appropriate SAS achieved. <p><input type="checkbox"/> Midazolam infusion IV:</p> <ul style="list-style-type: none"> Infuse 1 mg per hour and titrate by 0.5 mg/hr as often as every 15 minutes to SAS goal (Maximum of 7 mg/hr—Call MD if higher doses required) <p>Analgesia (CHOOSE ONE)</p> <p><input type="checkbox"/> morPHINE 2 mg IVPush every 1 hour PRN pain</p> <p><input type="checkbox"/> HYDROmorphine 0.5 mg IVPush every 1 hour PRN pain</p> <p>9. Supportive Therapy</p> <ul style="list-style-type: none"> Begin refrigerated Normal Saline IV infusion at 75 ml/hr Maintain MAP greater than 70 (CHOOSE ONE) <ul style="list-style-type: none"> <input type="checkbox"/> DOPamine 400mg/250ml: Initiate IV drip at 2.5 mcg/kg/min and titrate by 2.5 mcg/kg/min every 10 minutes to maintain mean arterial pressure (MAP) greater than 70mmHg. (Maximum dose = 20 mcg/kg/min) <input type="checkbox"/> Norepinephrine 4mg/250ml: Initiate IV drip at 2 mcg/min and titrate by 2 mcg/min every 5-10 minutes to maintain a mean arterial pressure (MAP) greater than 70mmHg. (Maximum dose = 90 mcg/min) <p>10. Cooling Procedure</p> <ul style="list-style-type: none"> Place ice packs on patient's axilla, sides of neck, and groin. Place washcloth between skin and ice pack. Skin assessment. In order for patients to achieve and maintain target hypothermia of 33 °C, complete sedation AND/OR paralysis must be maintained.
	<div style="display: flex; justify-content: space-between;"> Physician Signature: Physician Number: Date/Time </div>
	<div style="display: flex; justify-content: space-between;"> RN Signature Date/Time </div>