

**Conway Medical Center**  
**Conway, South Carolina**

Center Patient Admission  
Label Here

**PHYSICIAN'S ORDERS**

**Induced Hypothermia Post Cardiac Arrest – Adults**  
**( ED/CCU ONLY)**

<b>Admit:</b>	<input checked="" type="checkbox"/> Inpatient ICU service of _____	
<b>Diagnosis:</b>	<input checked="" type="checkbox"/> Cardiac Arrest <input type="checkbox"/> Other _____	
<b>Patient must meet all of this criteria:</b> <input type="checkbox"/> Post witnessed cardiac arrest with return of spontaneous circulation (ROSC) <input type="checkbox"/> Comatose within 6 hrs of cardiac arrest (not following commands or worse) <input type="checkbox"/> Age greater than 18 years old <input type="checkbox"/> Negative pregnancy test for women under age 50 <input type="checkbox"/> Blood pressure maintained $\geq$ 90 mmHg systolic (spontaneously or with fluids and/or vasopressors)		
<b>Exclusion Criteria: (do not implement if any of these present)</b> <input type="checkbox"/> Another reason to be comatose (status epilepticus, drug overdose, etc) <input type="checkbox"/> Known advanced terminal illness preceding the arrest/conflict with advanced directives or DNR status <input type="checkbox"/> Known coagulopathy, bleeding tendency, or active bleeding <input type="checkbox"/> QT prolongation greater than 450 msec <input type="checkbox"/> Cardiovascular instability (uncontrollable dysrhythmias) <input type="checkbox"/> Refractory hypotension despite interventions <input type="checkbox"/> Major intracranial, intrathoracic, or intraabdominal surgery within 14 days <input type="checkbox"/> Gravid pregnancy		
<b>Relative Contraindications:</b>	Active sepsis, Acute pancreatitis, Adrenal insufficiency	
<b>Consults:</b>	<input type="checkbox"/> Cardiology _____ <input type="checkbox"/> Pulmonology _____ <input type="checkbox"/> Neurology _____ <input type="checkbox"/> Other _____ <input type="checkbox"/> _____ for A-Line Placement <input type="checkbox"/> _____ for Central Line Placement	
<b>Cooling phase:</b> <b>Time Started:</b> _____ <b>Time goal temp met:</b> _____ <b>(rewarming phase begins 24 hours from time goal met)</b>	<input checked="" type="checkbox"/> Complete Neuro Assessment Worksheet and obtain baseline Train of Four (ToF). Sheet to be repeated 48 hours from start of protocol and again at discharge from ICU. <input checked="" type="checkbox"/> Cool body temperature to 32°-34°C ASAP (no later than 6 hrs post event) and maintain x 24 hours (initial the following when complete) _____ insert Foley with temp sensing probe (use rectal probe if patient aneuric) and connect to cooling machine _____ place vest and leg wraps and set cooling machine for rapid cool on auto to target of 33°C _____ bolus with refrigerated NS (approx. 4°C) until target temp met to a max of 2L over 2 hours (including bolus given in ED) _____ RT to turn off ventilator heater	
<b>Vital Signs</b>	<input checked="" type="checkbox"/> BP, MAP, pulse, resp, SaO <sub>2</sub> , EtCO <sub>2</sub> , and any additional hemodynamics q 15 min until target temp met then q 1 hour and prn *** Do not cool less than 32°C *** *** EtCO <sub>2</sub> goal 35-45 mmHg *** <input checked="" type="checkbox"/> Document VS during titrations according to the individual medications protocol	

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<b>BP/Volume Management:</b>	<input type="checkbox"/> Infuse 0.9% NaCl with 20 mEq KCl at _____ ml/hr Goal: keep MAP 80-100 mmHg <b>*** stop all potassium infusions prior to starting rewarming phase***</b>  <input type="checkbox"/> IV bolus _____ ml 0.9% NaCl at _____ ml/hr. Goal keep MAP 80-100 mmHg <input type="checkbox"/> CVP goal 8-12 mmHg or other _____ <input type="checkbox"/> Norepinephrine IV 8mg in 500ml D <sub>5</sub> W. Start at 4 mcg/min and titrate by 2-4 mcg q 15 min to maintain MAP 80-100 mmHg <input type="checkbox"/> Other: _____
<b>Sedation:</b>	<input checked="" type="checkbox"/> Goal: Sedate to Ramsey Scale of 4-5 (and/or control of seizures) with : <input type="checkbox"/> Propofol IV infusion (form #343) <b>OR</b> <input type="checkbox"/> Fentanyl IV initiate at _____ mcg/hr and titrate q 15 min to goal <input type="checkbox"/> Midazolam IV 0.125 mg/kg/hr titrated by 1-2 mg/hr q 15 min to goal <b>*** Patient is to remain continuously sedated until rewarming is complete (and baseline ToF achieved if paralytic administered)</b>
<b>Shivering prevention:</b>	<input type="checkbox"/> Magnesium Sulfate 5 grams IV over 5 hours <b>** Stat at start of cooling phase**</b> <input type="checkbox"/> Rocuronium 0.6-1 mg/kg IV q 1 hour prn shivering <input type="checkbox"/> Rocuronium IV infusion (Form #3370) <b>** Placing gloves and socks may help decrease shivering**</b>
<b>VTE Prophylaxis:</b>	<input checked="" type="checkbox"/> Physician must complete Form # 395
<b>Stress ulcer prophylaxis:</b>	<input type="checkbox"/> Protonix 40 mg IV daily <input type="checkbox"/> Famotidine 20 mg IV BID <input type="checkbox"/> Other: _____
<b>Other Medications:</b>	<input checked="" type="checkbox"/> Initiate Glycemic Pathway form # 2233 <input type="checkbox"/> Fosphenytoin load _____ mg (20mg/kg) IV infused no faster than 50mg/min followed by phenytoin 100mg q 8 hours for seizure activity (and notify physician). Obtain phenytoin level in AM <input type="checkbox"/> Acetaminophen 650 mg PR q 6 hours prn temp greater than 36.5°C <input checked="" type="checkbox"/> Lacrilube to both eyes q 4 hours and prn if on vecuronium

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<b>Labs:</b>	<input type="checkbox"/> Stat if not done in ED: Serum HCG (for women $\leq 50$ ), BMP, Mg, Phos., Hepatic Panel, Troponin 1, ABG, Amylase, UA, CBC with Diff., PT, PTT, Cardiac Enzymes <input type="checkbox"/> BMP, Mg, Phos, CBC, PT, PTT q 6 hours x 8 <input type="checkbox"/> BC x 2, q 24 hours x 2 <input type="checkbox"/> ABG daily while on Vent (make sure temperature corrected) <input type="checkbox"/> Other: _____
<b>Diagnostics:</b>	<input type="checkbox"/> CXR daily while on Vent <input type="checkbox"/> EKG <input type="checkbox"/> Other: _____
<b>Vent Management:</b>	<input checked="" type="checkbox"/> Vent Settings: _____ <b>*** Do not attempt weaning until rewarming complete***</b>
<b>Nursing Other:</b>	<input type="checkbox"/> OG Tube to <input type="checkbox"/> LIS or <input type="checkbox"/> Gravity <input checked="" type="checkbox"/> Hourly I&O, notify physician for UO less than 0.5 ml/kg/hr <input checked="" type="checkbox"/> q 1 hour neuro checks for 48 hours (if paralyzed measure pupils only q 1 hour, ToF q 4 hours) <input checked="" type="checkbox"/> HOB elevated 30° and turn q 2 hours unless contraindicated <input checked="" type="checkbox"/> Place bed in rotation mode at least 18/24 hours <input checked="" type="checkbox"/> Examine skin under cooling pads q 4 hours for breakdown <input checked="" type="checkbox"/> q 4 hours oral care per VAP prevention guidelines <input checked="" type="checkbox"/> continuous subglottic suction per VAP prevention guidelines
<b>Rewarming phase:</b>	<b>*** Discontinue all Potassium infusions prior to rewarming***</b> <input checked="" type="checkbox"/> Set cooling blanket to slow with a target of 36.4° <b>*** Watch for rebound hyperthermia, use acetaminophen and the cooling device to keep patient at or under 36.4°</b> <b>*** Expect vasodilation so continue with hourly and prn vitals***</b> <input checked="" type="checkbox"/> Once target temp met, paralytic may be d/c'd <input checked="" type="checkbox"/> Once target temp met and baseline ToF achieved may initiate sedation vacation to evaluate neuro status/readiness to wean assessment
<div style="display: flex; justify-content: space-between;"> <div>_____ <b>Physician</b></div> <div>_____/_____/_____ <b>Date</b></div> <div>_____ <b>Time</b></div> </div>	

**Induced Hypothermia: Post Cardiac  
Arrest Neurologic Assessment  
Worksheet**

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	<b>Initial Assessment</b>	<b>Assessment after 48 hrs</b>	<b>Discharge Assessment</b>
	<b>Time/Date:_____</b>	<b>Time/Date:_____</b>	<b>Time/Date:_____</b>
<b>Glasgow Coma Scale</b>			
<b>Pupils (equal, unequal, reactive, etc.)</b>			
<b>Oculocephalic reflex (if done by physician)</b>			
<b>Eye movements (purposeful, roving, or no response)</b>			
<b>Signature</b>			

**Train of Four** baseline = \_\_\_\_/4      Time/Date:\_\_\_\_\_

Site used = \_\_\_\_\_

Myoclonus present:    ☐ Yes    ☐ No

Other findings:

**Glasgow Coma Scale Scoring:**

**Motor**

Obeys = 6  
Localizes = 5  
Withdraws = 4  
Abnormal Flexion = 3  
Extends = 2  
No response = 1

**Verbal**

Oriented = 5  
Confused conversation = 4  
Inappropriate words = 3  
Incomprehensible sounds = 2  
No response = 1

**Eye Opening**

Spontaneous = 4  
To Speech = 3  
To pain = 2  
No response = 1

<b>ED-3369-FRM</b> <b>REV 1 01.06.14</b>	<b>Conway Medical Center</b> <b>Conway, South Carolina</b> <b>Attention:</b>  <b>NOT A PART OF PATIENT MEDICAL RECORD</b> <u><b>RN Checklist for Hypothermia after Cardiac Arrest</b></u> (to be used along with Hypothermia guidelines, orders, and Neuro Assessment Worksheet)	Center Patient Admission Label Here																																								
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <b>Initiate Cooling</b>  <input type="checkbox"/> Place vest and bilateral leg wraps and set cooling machine  <input type="checkbox"/> Ice cold IV fluids given for rapid cool to 33° C         </div> <div style="width: 50%;">           Must also have distilled water to fill machine            (if machine unavailable, place ice packs to axillae and groin)         </div> </div>																																										
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <input type="checkbox"/> Place monitoring devices  <div style="display: flex; justify-content: space-around;"> <input type="checkbox"/> Rectal Probe    <input type="checkbox"/> Foley temp probe         </div> </div> <div style="width: 50%;"> <input type="checkbox"/> Arterial. Line    <input type="checkbox"/> Central Line  <input type="checkbox"/> EtCO<sub>2</sub> in room    <input type="checkbox"/> RT turned off vent heater         </div> </div>																																										
<input type="checkbox"/> Neuro Assessment Sheet Completed <input type="checkbox"/> IV drips initiated _____ <div style="display: flex; justify-content: space-around;"> <input type="checkbox"/> CXR completed    <input type="checkbox"/> EKG completed    <input type="checkbox"/> EEG (if evidence of seizure)         </div> <input type="checkbox"/> All initiation labs complete Serum HCG (if woman & less than 50) do not delay cooling pending results, BMP, mag, phos, Hepatic Panel, Troponin-I, ABG, Amylase, UA, CBC with Diff, PT/PTT, Cultures and <input type="checkbox"/> CK <input type="checkbox"/> CKMB (includes CK)																																										
<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;"><input type="checkbox"/> Follow up labs</td> <td style="width: 15%;">Chem 10</td> <td style="width: 10%;">Q6H x 8</td> <td style="width: 10%;">_____</td> <td style="width: 10%;">_____</td> <td style="width: 10%;">_____</td> <td style="width: 10%;">_____</td> <td style="width: 10%;">_____</td> </tr> <tr> <td></td> <td>CBC</td> <td>Q6H x 8</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td></td> <td>PT/PTT</td> <td>Q6H</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td></td> <td>CXR</td> <td>Q24H</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td></td> <td>Cultures</td> <td>Q24H x 2</td> <td>_____</td> <td>_____</td> <td colspan="3" style="text-align: right;">(or as indicated if other s/s or lab findings suggest infection)</td> </tr> </table>			<input type="checkbox"/> Follow up labs	Chem 10	Q6H x 8	_____	_____	_____	_____	_____		CBC	Q6H x 8	_____	_____	_____	_____	_____		PT/PTT	Q6H	_____	_____	_____	_____	_____		CXR	Q24H	_____	_____	_____	_____	_____		Cultures	Q24H x 2	_____	_____	(or as indicated if other s/s or lab findings suggest infection)		
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<input type="checkbox"/> Place antiembolism hose <input type="checkbox"/> Place IPC devices <input type="checkbox"/> Mittens/socks placed for shivering <input type="checkbox"/> Place OGT to decompress stomach at LIWS <input type="checkbox"/> HOB at 30° <input type="checkbox"/> Turn Q2H and check skin under cooling pads <input type="checkbox"/> Keep NPO during hypothermia and rewarming. Advance diet as tolerated when rewarming complete <input type="checkbox"/> Glycemic Pathway																																										
<b>Rewarming</b> <input type="checkbox"/> Rewarm slowly not more than 0.5-1 degrees per hour (otherwise arrhythmias may develop) (use rewarm over 24 hour setting on blanket) <input type="checkbox"/> Stop all infusions of potassium <input type="checkbox"/> Cooling blanket back on for temp greater than 36.4° C <input type="checkbox"/> Acetaminophen (Tylenol) given for temp greater than 36.4° C																																										