

## Physician Orders

Care Set: Hypothermia Post Cardiac Arrest Protocol Critical Care Orders

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Height: \_\_\_\_\_ cm Weight: \_\_\_\_\_ kg

<b>Allergies:</b>		<input type="checkbox"/> No known allergies
<input type="checkbox"/> Medication allergy(s): _____		
<input type="checkbox"/> Latex allergy <input type="checkbox"/> Other: _____		
<b>Inclusion criteria- must meet ALL of the following:</b>		
	1. Witnessed Primary cardiac arrest V-tach/V-fib with return of spontaneous circulation (ROSC) within 60 minutes of the arrest. Non-shockable pulseless rhythms may be considered if the etiology is presumed cardiac or if pulmonary embolism is suspected.	
	2. Intubated with mechanical ventilation	
	3. Treatment initiated within 6 hours of arrest	
	4. Systolic BP greater than 90mmHg with or without vasopressors	
	5. GCS less than or equal to 8	
<b>Absolute Exclusion Criteria- excluded with ANY ONE of the following:</b>		
	1. Intracranial hemorrhage	
	2. DNR	
	3. Coma due to cause other than cardiac arrest	
	4. Known bleeding or on going active bleeding	
	5. Temperature less than 30 degrees Celsius after cardiac arrest	
	6. Pregnancy	
<b>Relative Exclusion Criteria- Based on Physician discretion:</b>		
	1. Uncontrolled pulseless arrhythmias after initial ROSC	
	2. Major surgery within 14 days	
	3. Terminal illness	
	4. Poor baseline functional status	
	5. Systemic infection/sepsis	
<b>Vital Signs</b>		
[R]	Vital Signs	Monitor and Record Resp Rate, Monitor and Record Blood Pressure, Monitor and Record Pulse, q15 min
[R]	Vital Signs	Monitor and Record Temp, q 30 min, Comment: Esophageal Temp
[R]	CVP Monitoring	q1 hour
<b>Patient Care</b>		
<input type="checkbox"/> <b>VTE Medical Prophylaxis Orders</b>		
[R]	Sedation Goal Per Riker Scale	Goal: 2 (Very Sedated), Maintain sedation goal of 2 or less
[R]	Induced Hypothermia Inclusion/Exclusion Form	T;N
<b>Note: Elevation of head of bed is contraindicated with spinal surgery within 14 days or severe skin breakdown.</b>		
[ ]	Elevate Head of Bed	30 degrees Head of Bed
[ ]	Central Line Insertion at Bedside Setup	STAT
[ ]	Request Supply to Bedside	T;N, STAT, Arterial Line at Bedside Setup
[ ]	IV Insert/Site Care	STAT, q4day, large bore



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Patient Care continued		
[ ]	Indwelling Urinary Catheter Insert - Follow Removal Protocol	T;N, Foley catheter with temp probe Reason: [ ] Continuous irrigation/Med instillation [ ] Spinal/pelvic issue requires immobility [ ] Urethral problems [ ] Acute retention or neurogenic bladder [ ] s/p GYN or genitourinary tract surgery [ ] s/p urologic or colorectal surgery [ ] s/p organ transplant [ ] Vent & paralyzed, condom cath not option [ ] Chronic indwelling or suprapubic cath [ ] Sacral wound (Stage III or IV) w/incont [ ] Post-op surgery less than 24 hours ago [ ] 24hr urine collection and incontinence [ ] Hospice or terminal care
[ ]	Nasogastric Tube	T;N, Suction Strength: Low Intermittent
[ ]	Oral Gastric Tube Insert	T;N, Special Instructions: Low Intermittent
[ ]	Cold Apply	T;N, Apply to: axillae, sides of neck and groin with washcloth between ice packs and skin. Apply until cooling blankets started.
Nursing Communication		
[R]	Nursing Communication	T;N, Hypothermia Post Cardiac Arrest Protocol Critical Care: Monitor and document skin q2 hours
[R]	Nursing Communication	T;N, Hypothermia Post Cardiac Arrest Protocol Critical Care: Measure cooling water temp q 30 min
[R]	Nursing Communication	T;N, Hypothermia Post Cardiac Arrest Protocol Critical Care: Sedation and Analgesia orders must be initiated prior to application of cooling wraps and/or administration of neuromuscular blockade agents
[R]	Nursing Communication	T;N, Hypothermia Post Cardiac Arrest Protocol Critical Care: Upon reaching goal temperature, place order for ISTAT Blood Gases to start in 6 hours and continue q 6h for 5 occurrences
[R]	Nursing Communication	T;N, Hypothermia Post Cardiac Arrest Protocol Critical Care: Upon reaching goal temperature, place order for Glucose Level and Troponin-I, Time Study to start in 6 hours and continue q6h for 5 occurrences
[R]	Nursing Communication	Hypothermia Post Cardiac Arrest Protocol Critical Care: Upon reaching goal temperature, place order for Potassium Level, Time Study, to start in 6 hours and continue q6h for 3 occurrences
[R]	Nursing Communication	Hypothermia Post Cardiac Arrest Protocol Critical Care: Upon reaching goal temperature, place order for CBC, BMP, PT/INR, and PTT to start in 24 hours and continue q6h for 2 occurrences
[R]	Nursing Communication	T;N, Hypothermia Post Cardiac Arrest Protocol Critical Care: Decrease room temperature to 60 degrees Fahrenheit.



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Nursing Communication continued		
[R]	Nursing Communication	T;N, Once patient re-warmed to 37.0 degrees Celsius set cooling equipment at 37.0 (range 36.4-37.3 per ACNN Critical Care guidelines) for 48 hours to maintain normothermia.
[R]	Nursing Communication	T;N, During normothermia phase replace esophageal temperature probe with rectal probe if patient is to be extubated.
[R]	Nursing Communication	T;N, Hypothermia Post Cardiac Arrest Protocol Critical Care: Stop administration of electrolytes 8 hours PRIOR to rewarming.
Respiratory Care		
[R]	Respiratory Gencode (RT Communication)	T;N, Do not use heated ventilator circuit until rewarming process initiated
[ ]	ISTAT Blood Gases (ABG-RT Collect)	T;N, STAT, once
Bolus Medications		
[ ]	Sodium Chloride 0.9% Bolus	1000mL, IV Piggyback, q30min, STAT, T;N, (for 2 dose), 1000mL/hr Comment: Refrigerated Normal Saline infuse via peripheral or femoral line.
[ ]	Sodium Chloride 0.9% Bolus	500mL, IV Piggyback, N/A, PRN Other Specify in Comment, Routine, T;N, 1000mL/hr, Comment: for CVP less than 8 or PAOP less than 12. Notify MD if goal not achieved after second bolus.
Continuous Infusion		
[ ]	Sodium Chloride 0.9%	1000mL, IV, Routine, T;N, 75 mL/hr
<b>To maintain MAP greater than 65, choose order below:</b>		
[ ]	norepinephrine (norepinephrine 16 mg/250 mL- NaCl 0.9% injectable solution)	16 mg / 250 mL, IV, Routine, T;N, titrate, Comment: begin at 2 mcg/min, titrate in increments of 2 mcg/min as often as every 5 min. to maintain a mean arterial pressure (MAP) greater than 65 mmHg. Max dose = 90mcg/min
Medications		
[R]	<b>Hypothermia Shivering Protocol Orders (see separate sheet)</b>	
[R]	<b>Hypothermia Insulin Protocol Orders (see separate sheet)</b>	
[R]	ocular lubricant (Lacri-Lube S.O.P)	1 application, Ophthalmic Oint, Both Eyes, q2h, Routine, T;N, Comment: apply to eyes while receiving paralytics
Stress Ulcer Prophylaxis Medications		
[ ]	pantoprazole	40mg, injection, IV Push, qDay, Routine, T;N
[ ]	famotidine	20mg, injection, IV Push, bid, Routine, T;N
<b>If CrCl less than 50mL/min, place order below:</b>		
[ ]	famotidine	20mg, injection, IV Push, qDay, Routine, T;N
Sedation Medications		
<b>Must order one of the following sedation medications below:</b>		
[ ]	LORazepam	2 mg, Injection, IV Push, q 30 minutes, PRN Other Specify in Comment, Routine, T;N, Comment: PRN to maintain SAS goal (Maximum of 12 mg in a 3 hr period). May give 1-2 mg, start with 1 mg.
[ ]	midazolam (midazolam 1mg/mL/NS 50mL PreMix)	50mg/50mL, IV, Routine, titrate, Comment: Initial Rate: 1mg/hr; Titration Parameters: 0.5 mg/hr as often as every 30 min to SAS goal per MD orders; Max Rate: 7 mg/hr; Conc: 1 mg/mL

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Sedation Medications continued		
<input type="checkbox"/>	propofol	1.000mg/100mL, IV, Routine, Comment: 10mcg/kg/min, maintain a rate of 10mcg/kg/min throughout induced hypothermia. DO NOT BOLUS. Discontinue and follow new orders if propofol initiated per Hypothermia Shivering Protocol.
Analgesia Medications		
Choose one order below:		
<input type="checkbox"/>	morPHINE	2 mg, Injection, IV Push, q1hr, PRN Other Specify in Comment, Routine,T;N, Comment: to maintain SAS goal
<input type="checkbox"/>	HYDROmorphone	0.5 mg, Injection, IV Push, q1hr, PRN Other Specify in Comment, Routine,T;N, Comment: to maintain SAS goal
Laboratory		
If not previously done in ED place orders below:		
<input type="checkbox"/>	CBC	STAT, T;N, once, blood, Nurse Collect
<input type="checkbox"/>	CMP	STAT, T;N, once, blood, Nurse Collect
<input type="checkbox"/>	Magnesium Level	STAT, T;N, once, blood, Nurse Collect
<input type="checkbox"/>	Troponin-I	STAT, T;N, once, blood, Nurse Collect
<input type="checkbox"/>	PT/INR	STAT, T;N, once, blood, Nurse Collect
<input type="checkbox"/>	PTT	STAT, T;N, once, blood, Nurse Collect
<input type="checkbox"/>	Phosphorus Level	STAT, T;N, once, blood, Nurse Collect
<input type="checkbox"/>	CK Isoenzymes	STAT, T;N, once, blood, Nurse Collect
<input type="checkbox"/>	Lactate Level	STAT, T;N, once, blood, Nurse Collect
Diagnostics		
If not previously done in ED place orders below:		
<input type="checkbox"/>	CT Brain/Head WO Cont	T;N, STAT, Reason for Exam: Other- cardiac arrest of unknown origin, stretcher
<input type="checkbox"/>	Chest 1VW Frontal	T;N, STAT, Reason for Exam: Other- s/p Intubation, Portable
<input type="checkbox"/>	Electrocardiogram( EKG)	Start at T;N, STAT, Reason for Exam: Other- Post cardiac arrest
Consults/Notifications		
<input type="checkbox"/>	Notify Physician -Once	T;N, Who: _____, For: If CVP and PAOP goal not achieved after second normal saline bolus.
<input type="checkbox"/>	Notify Physician -Continuing	T;N, Who: _____, For: K+ less than 2.8mmol/L (Do not replace K+ until less than 2.8mmol/L)
<input type="checkbox"/>	Physician Group Consult	T;N, Group: UT Neuro ICU, Reason for Consult: Hypothermia Protocol
<input type="checkbox"/>	Notify Physician -Once	T;N, Who: Physician, If not done in ED, notify patient cardiologist. If no cardiologist known then notify on-call cardiology
<input type="checkbox"/>	Physician Group Consult	T;N, Reason for Consult: Hypothermia Protocol admission to ICU, Who: UT Pulmonary,

Date	Time	Physician's Signature	MD Number
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