

Allergies: _____

Inclusion Criteria Guidelines ^{1,2:}

- VF/VT pulseless, PEA, asystole
- GCS less than or equal to 8
- SBP greater than 90 mm Hg within 60 minutes of event
- Other causes of neurological and cardiac injury at physician discretion

Patient Weight

_____ Kg

LABS:

- Lab tests on arrival in ED: ABG/PRC, CBC, Full profile (FP), Magnesium (MG), PT/INR
- RP and Magnesium 4 hours after admit, then every 6 hours until normothermic

HYPOTHERMIA TREATMENT:

Initiation (ED or CCU)

- Prepare cooling unit as soon as notified of patient arrival
- Set cooling unit at 33°C in to achieve goal of 33° +/- 1°C in 120 minutes
- Apply limb and chest wraps or blankets. May supplement with ice bags to groin, axilla, and torso as needed to achieve goal temperature in 120 minutes
- Monitor core temperature by thermistor Foley
- Insert orogastric tube & attach to low continuous suction (preferred medication route)

Medications

Initiate <i>Critical Care Sedation Orders</i>	Sedation
Initiate <i>Critical Care Neuromuscular Blockade Protocol</i>	Paralytic
If serum potassium is less than or equal to 3.5, initiate <i>Potassium Replacement: Critical Care Orders</i> DC potassium replacement orders when rewarming initiated	Electrolyte Replacement
If magnesium level less than or equal to 1.7, give Magnesium Sulfate 2 g (16 mEq) IV	Electrolyte Replacement
Initiate <i>Weight-Based SubQ Sliding Scale Insulin Orders</i> If BG greater than or equal to 150 X 2, initiate <i>Critical Care Insulin Infusion Orders – Algorithm 1</i>	Blood Glucose (BG)
Midazolam 2 mg IV every 15 minutes PRN. Max dose 10 mg in 2 hours. Hold for SBP less than 90 mm Hg	Shivering/ agitation/ tachycardia/ hypertension

Maintenance and Reversal

- Continue hypothermia for 24 hours, unless patient awakens and follows commands
- Monitor for bradyarrhythmias during cooling ⁴
- Monitor SpO₂ with forehead sensor if finger probe unreliable
- Discontinue paralytic agent when goal temperature is reached and stable for 2 hours

Rewarming

- After 24 hours of hypothermia, passively re-warm at a maximum of 0.3°C degrees/hour with temperature management system (minimum 12 hours to rewarm to 37°C).
- Monitor for hypotension and electrolyte shifts during rewarming ³
- Discontinue electrolyte replacement
- Consult physician for discontinuation of *Critical Care Sedation Orders* for ventilator weaning once patient is warmed
- May reinitiate paralytic agent for discomfort ⁸. Discontinue when temp reaches 36°C

Physician Signature

Date

Time



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HYPOTHERMIA ORDERS

P0113D (Rev 0908) White - Chart Yellow - Pharmacy Pink - Nursing

Guidelines for Utilizing the Therapeutic Hypothermia Protocol:

1. Absolute exclusions:
 - Active bleeding/bleeding diathesis
 - Acute trauma
2. Relative exclusions:
 - Recent burn with skin that is not intact
 - Pre-hospital persistent vegetative state
 - Active infections
 - Recent surgery
 - Pregnancy
3. Closely monitor potassium levels during the cooling phase potassium will shift into the cells leaving a state of hypokalemia. During rewarming, potassium will shift into the serum causing a state of hyperkalemia
4. Do not treat bradycardia unless symptomatic
5. If hypotension occurs, consider IV fluids
6. The goal is to discontinue neuromuscular blocker when possible. Assess at each phase of protocol, cooling, maintenance, and rewarming
7. For bariatric patients, utilize wraps and topical blanket or extra torso wrap
8. Signs of discomfort include but are not limited to shivering or agitation, unexplained tachycardia, hypertension and/or hyperventilation