



PHYSICIAN ORDERS
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MEDICAL RECORD# _____
DOB _____
NAME _____
VISIT# _____

Chief Complaint (CC): 1. _____
Reason for test or 2. _____
service. ICD-9 codable) 3. _____

ALLERGIES: (DRUG, FOOD, ENVIRONMENTAL) _____

NO KNOWN DRUG ALLERGIES NO KNOWN FOOD ALLERGIES NO KNOWN ENVIRONMENTAL ALLERGIES

Attending Physician: _____ Wt: _____

HYPOTHERMIA POST CARDIAC ARREST (ICE PACKS AND COOLING BLANKETS)

PATIENT INCLUSION CRITERIA:

- Resuscitated cardiac arrest > 18 years of age
- Comatose (GCS <8) after return of spontaneous circulation
- Endotracheal intubation with mechanical ventilation
- Mean Arterial Pressure > 60mm Hg with or without vasopressors and volume

Note: Adequate sedation and analgesia is required, but paralytics are optional

ORDERS

1. Insert Foley urinary catheter with temperature probe
2. Vital Signs - Record heart rate, blood pressure, cardiac rhythm and Foley and secondary(tympanic esophageal rectal) temperature at 15 minute intervals during active cooling, 30 minutes intervals during the first 2 hours of hypothermia maintenance and one hour intervals during maintenance, record temperatures at 30 minutes intervals during active rewarming
3. Maintain target temperature at 33.5 degrees C for 24 hours
4. Check skin integrity every 8 hours
5. Continuous EEG monitoring for patients who have paralytics administered; STAT neurology consult to arrange EEG monitoring.
6. Cooling method: Ice Packs and Cooling Blankets
 - a. USE ICE PACKS AND COOLING BLANKETS:
 - I. Ice packs to patient's neck, axilla and inguinal regions. Change ice packs every 30 - 60 minutes as needed during hypothermia induction
 - II. Use cooling blankets
Place cooling blankets below the patient and place a single layer blanket, sheet over the cooling blanket (sheet side to patient). Place a second cooling blanket over the patient with a sheet in between the patient and the sheet/blanket.
 - III. On the water blanket controller, select the "Manual" mode and set the set point to 4 or 5 degrees C (the lowest temp setting on the cooling system) to cool patient to 33.5° C
 - IV. Once patient temp. below 34° C is achieved remove ice packs. Select "Auto" mode on the waterblanket controller and set the target temp. to 33.5° C
 - V. Remove cooling blanket(s) if patient temp. drops below 32° C until temp returns to 33° C
 - VI. Notify physician if patient target temp. of 34°C had not been achieved within 4 hours
 - VII. Record date and time that target temp. below 34°C (33.9°C) has been achieved.
 - b. REWARM PROTOCOL :
 - I. Rewarm the patient to 36°C by setting the controller to "Manual" mode and re-set unit by increasing the target temperature by 1 degree C every 2 to 4 hours. If experiencing difficulty rewarm, use heated ventilator air to provide core re-warming. After reaching a target temperature of 36°C, stop the controller and remove the water blankets

Provider Signature _____ ID# _____ Pager# _____ Date: _____ Time: _____
(Military)



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Patient Weight kg

7. MEDICATIONS

a. Analgesia (Note: consider smaller doses in patients who are small or over 70 years of age)

Fentanyl infusion (concentration 1.25mg/250ml NS = 5mcg/mL)

- I. Loading dose: mcg IV bolus (suggested 1-2 mcg/kg)
II. Continuous dose: mcg/hr (suggested 1-4 mcg/kg/hour)
III. Bolus dose: mcg IV bolus prior to each rate increase rate (suggested 1-2 mcg/kg)
IV. Titration: Increase infusion by 25 mcg/hr after bolus dose every 5-15 minutes if indicated

b. Sedation-Titrate to achieve goal RASS (Richmond Agitation Sedation Scale)

Goal RASS= (Note: Goal RASS of -5 required for patients requiring paralytics)

(Note: consider smaller doses in patients who are small or over 70 years of age)

- Midazolam infusion (standard concentration 100mg in 100 mL NS)
I. Loading dose: mg IV bolus (suggested 2-5 mg)
II. Continuous dose: mg/hr (suggested 0.5 mg/hour)
III. Bolus dose: mg IV bolus prior to each rate increase rate (suggested 1-2 mg IV)
IV. Titration: Increase infusion by 1-2 mg/hr after bolus dose every 10-30 minutes if indicated. Contact Physician for doses > 10 mg/hr: patients should be evaluated for cause of agitation
Propofol infusion (standard concentration 10mg/ml)
I. Loading dose: none
II. Continuous dose: mcg/kg/min (suggested 5mcg/kg/min)= mcg/min
III. Titration: Increase infusion by 5-10mcg/kg/min every 5 minutes until at goal RASS

c. Shivering Control

- I. Buspirone (Buspar) 60mg via NG tube once plus meperidine (Demerol) 50-75mg IV once upon start of cooling followed by meperidine (Demerol) 25mg IV once in 15 min
II. If shivering is not controlled by buspirone or unable to use meperidine (Demerol), then paralyze patient with cisatracurium (see below)

d. Paralytic -Patients must have adequate analgesia and sedation prior to starting (goal RASS score -5)

Cisatracurium (standard concentration 200mg in 500 mL D5W)

- I. Loading dose: 0.1mg/kg administered over one min= mg of cisatracurium
II. Continuous dose: start at 1 mcg/kg/min
III. Titration: Increase infusion by 0.5-1mcg/kg/min to achieve 1-2 twitches out of four with train-of-four nerve stimulator monitoring

8. Diagnostic Testing - All patients

- a. EKG at baseline, 24 and 48 hours
b. Chest radiograph at baseline, 24 and 48 hours
c. ABG, whole blood Na, K, Ionized Calcium, CBC, Renal Profile, lactate, Ca, Mg, PT/PTT, Platelets and lactate at baseline, 4hrs, 8hrs, 12hrs, 16hrs, 20hrs, and 24hrs. Lipase and LDH at baseline, 12, 24, and 48 hours

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