

ADVANCED EMERGENCY MEDICAL TECHNICIAN (PARAMEDIC) PROTOCOLS

500-A

SMOKE INHALATION

This protocol should be utilized ONLY for the management of symptomatic patients after exposure to smoke in an enclosed space and cyanide exposure is suspected.

1. Begin Basic Life Support Procedures
2. If necessary, perform Advanced Airway Management *.
3. Begin Cardiac & Pulse Oximetry monitoring.
4. Begin SpCO monitoring, if available
5. Begin two IV infusions of Normal Saline (0.9% NS). Refer also to Protocol #528 for all patients with burns.
6. Patients with the following symptoms, after exposure to smoke in an enclosed space, should be administered the medications listed in Table 1, if available.
 - Hypotension not attributable to other obvious causes
 - Altered mental status
 - Coma
 - Seizures
 - Respiratory arrest
 - Cardiac arrest

NOTE: Prior to administration of Hydroxocobalamin, obtain three blood samples using the tubes provided in the cyanide toxicity kit, if available.

Whenever Hydroxocobalamin is administered, follow with a 20 ml flush of normal saline (0.9% NS) prior to administration of any other medication.

7. In the event of continued hypotension (SBP <90mmHg):
 - a. Administer epinephrine 10 mcg IV Bolus. Repeat epinephrine 10 mcg IV Bolus every 5 minutes. Titrate to a systolic BP greater 90mmHg.
OR
 - b. Administer Norepinephrine 2 mcg/min IV drip. If there is insufficient improvement in hemodynamic status, the infusion rate may be increased until the desired therapeutic effects are achieved or adverse effects appear. Maximum dosage is 20 mcg/min, IV drip.

Note: Norepinephrine must be administered via 18 gauge or larger IV/IO, using an IV drip chamber or other suitable metering device (e.g. Dial a flow, infusion pump).

OR

- c. Administer Dopamine 5 mcg/kg/min, IV drip. If there is insufficient improvement in hemodynamic status, the infusion rate may be increased until the desired therapeutic effects are achieved or adverse effects appear. (Maximum dosage is 20 mcg/kg/min, IV drip.)

THE REGIONAL EMERGENCY MEDICAL SERVICES COUNCIL OF NEW YORK CITY

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* *If the patient is alert prior to performing Advanced Airway Management, refer to Prehospital Sedation in General Operating Procedures. Prior permission from Medical Control is required.*

Age Group	Hydroxocobalamin ^A	Sodium Thiosulfate ^B
Infant/Toddler (0-2 years)	¼ bottle	250mg/kg (prepare by mixing 12.5gm of Sodium Thiosulfate with 100mL of D5W, then drawing 3mL/kg of prepared solution) administered over 10 minutes, IV.
Preschool (3-5 years)	1/4 bottle	
Grade School (6-14 years)	1/2 bottle	
Adult (≥15 years)	1 bottle	12.5gm (150 mL of a prepared solution) administered over 10 minutes, IV.

^A Hydroxocobalamin may be mixed with D5W, Normal Saline, or Lactated Ringers. The vented macro drip tubing that accompanies the Cyanokit, should be used, wide open to ensure correct administration time of approximately 15 minutes for the kit.

^B Sodium Thiosulfate solution should be prepared by adding 12.5gm (50mL) to a 100cc bag of D5W for a total of 150mL.

NOTE: In the event that only one intravascular access line is established, administer Hydroxocobalamin first before Sodium Thiosulfate.

MEDICAL CONTROL OPTIONS:

OPTION A: Transportation Decision.

NOTE: For patients exhibiting signs and symptoms consistent with carbon monoxide poisoning, refer to General Operating Procedures – Transportation Decisions and Procedures.

CYANIDE TOXICITY KIT (if available)

One (1) 5.0 gm bottle of crystalline powder Hydroxocobalamin	One (1) 2 ml fluoride oxalate whole blood tube
One (1) 12.5 gm bottles of Sodium Thiosulfate (50 mL of 25% solution)	One (1) 2 ml K2 EDTA tube
Two (2) 100 mL bag 0.9% NS, D ₅ W, LR	One (1) 2 ml lithium heparin tube
One (1) 100 mL bag D ₅ W	