## **TOXIC EXPOSURE - CYANIDE**

#### **ALL PROVIDERS / EMT**

	Scene	Management
_	Scelle	Ivianagemeni

- If properly trained and equipped, safely and rapidly remove patient from the source of exposure.
- Request HazMat response as appropriate.
- Industries in which to consider evanide exposure:
  - Electroplating and Metallurgy
  - Organic chemicals production
  - Photographic developing
  - Manufacture of plastics
  - Fumigation of ships
  - Some mining processes especially gold/copper
- Patients and EMS providers may be exposed to cyanide in the following ways;
  - O Breathing air, drinking water, touching soil, or eating foods that contain cyanide.
  - o Breathing smoke during closed-space fires.
  - o Breathing air near a hazardous waste site containing cyanide.
  - Eating foods naturally containing cyanide compounds, such as tapioca, lima beans, apricot seeds and almonds. However, the portions eaten in the United States contain relatively low amounts of cyanide.

### ☐ Focused history and physical exam

- Be alert for exposure related signs and symptoms;
  - Acute dyspnea/tachypnea without cyanosis
  - Nausea/vomiting
  - o Seizures
  - Hyper or hypotension
  - o Total body erythema (redness)
  - o Cardiac monitor, CO2, and Pulse Oximetry monitoring when available

#### ☐ Treatment Plan

- Administer high flow oxygen immediately and continuously
- Pulse oximetry readings may not be accurate because of cyanide interaction
- Cardiac monitor and ETCO2, when available

**ADULT** 

PEDIATRIC (<15 years of Age)
NOTE: Pediatric weight based dosing should not exceed Adult dosing.

#### **AEMT**

- ☐ Advanced airway, vascular access and fluid therapy
- ☐ Hydroxocobalamin (CYANOKIT®) for adults is 5 g (contained in a single vial), administered by IV/IO infusion over 15 minutes (approximately 15 mL/min)

## **PARAMEDIC**

- ☐ **Epinephrine 2–10 mcg/min** IV/IO infusion for hypoperfusion. Titrate to maintain a SBP >100 mmHg.
- ☐ Push Dose Epinephrine 10mcg as needed to maintain a SBP >100 mmHg after fluid bolus

# AEMT

- ☐ Advanced airway, vascular access and fluid therapy

  Hydroxocobalamin (CVANOKIT®) can be
- Wydroxocobalamin (CYANOKIT®) can be used in children. Administer 70mg/kg over 15 minutes IV/IO (approximately 15ml/min) not to exceed a max dose of 5 grams under direction of OLMC or Poison Control

## **PARAMEDIC**

- □ **Epinephrine 0.1–2 mcg/kg/min** IV/IO infusion for hypoperfusion. Titrate to maintain a SBP >70 + (age in years x 2) mmHg.
- Push Dose Epinephrine 1mcg/kg as needed to maintain a SBP>70 + (age in years x 2) mmHg after fluid bolus