6. Monitor pulse oximetry and $EtCO_2$
7. Monitor patient for signs of hypoxia (pulse oximetry *less than* 94%) and respiratory decompensation regardless of pulse oximetry reading
8. Identify the specific agent of exposure, time of ingestion/inhalation, and quantity/timing of exposure
9. Obtain patient history including cardiovascular history and prescribed medication
10. Obtain other pertinent patient history
11. Perform physical exam

Treatment and Interventions

There is **no** widely available, rapid, confirmatory cyanide blood test. Many hospitals will not be able to rapidly assess cyanide levels. Therefore, treatment decisions must be made on the basis of clinical history and signs and symptoms of cyanide intoxication. For the patient with an appropriate history and manifesting one or more significant cyanide exposure signs or symptoms, treat with:

1. 100% oxygen via non-rebreather mask, CPAP, or bag valve mask
2. Collect a pre-treatment blood sample in the appropriate tube for lactate and cyanide levels, if feasible
3. Administer one of the following medication regimes
    a. Hydroxocobalamin (the preferred agent)
        i. **Adult**: Administer hydroxocobalamin
            1. Initial dose is 5 g administered over 15 minutes slow IV
            2. Each 5 g vial of hydroxocobalamin for injection is to be reconstituted with 200 mL of LR, NS, or D5W (25 mg/mL) and administered at 10–15 mL/minute
            3. An additional 5 g dose may be administered with medical consultation.
        ii. Pediatric: Administer hydroxocobalamin 70 mg/kg (reconstitute concentration is 25 mg/mL)
            4. Each 5 g vial of hydroxocobalamin for injection is to be reconstituted with 200 mL of LR, NS, or DSW (25 mg/mL) and administered at 10–15 mL/minute
        i. Maximum single dose is 5 g

OR

    b. Sodium thiosulfate
        i. **Adult**: Sodium thiosulfate 12.5 g IVF (50 mL of 25% solution)
        ii. **Pediatric**: Sodium thiosulfate 0.5 g/kg IV (2 mL/kg of 25% solution)

4. If seizure, treat per Seizures Guideline

Patient Safety Considerations

1. In the event of multiple casualties, be sure to wear appropriate PPE during rescue evacuation from the toxic environment
2. If the patient ingests cyanide, it will react with the acids in the stomach generating hydrogen cyanide gas. Be sure to maximize air circulation in closed spaces (ambulance) as the patient's gastric contents may contain hydrogen cyanide gases when released with vomiting or belching
3. Do not use nitrites in conjunction with suspected carbon monoxide poisoning as it worsens the hemoglobin oxygen carrying capacity even more than carbon monoxide (CO)
4. Hydroxocobalamin is only agent safe for treatment of cyanide poisoning in pregnant patients