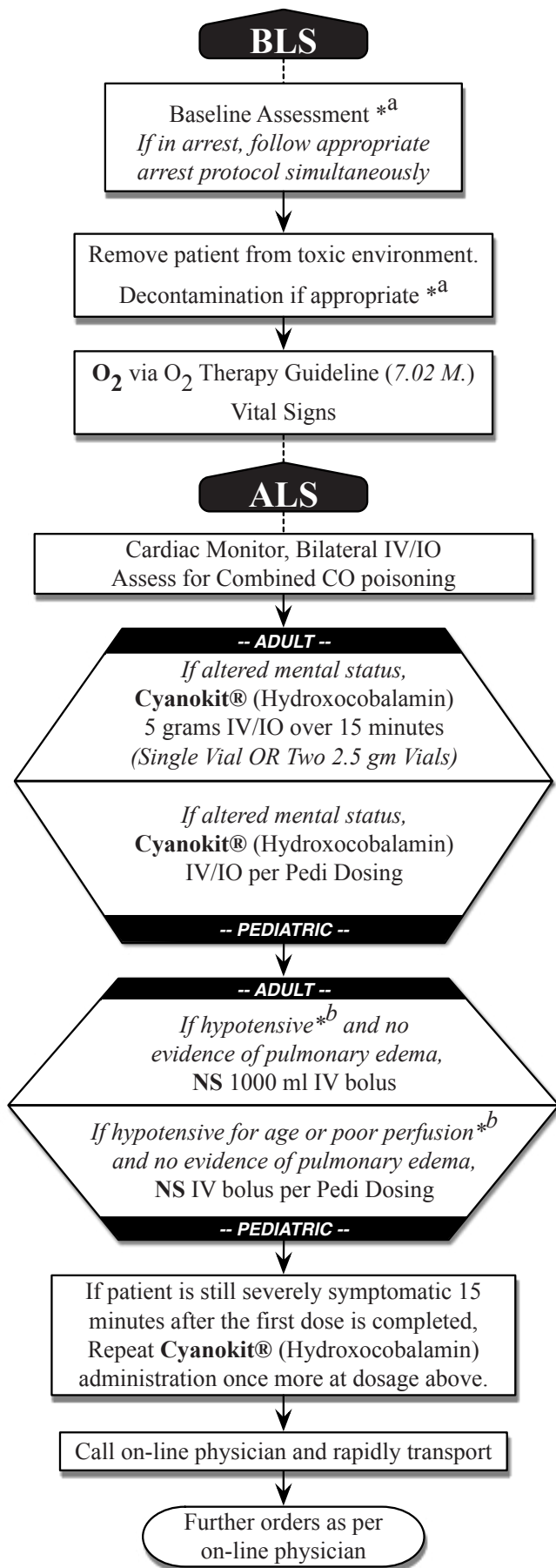


## 8.03 R. Cyanide (CN-) Poisoning



- Assessment Considerations**
- Toxic cyanide compounds include hydrogen cyanide (gas), sodium cyanide and potassium cyanide (water-soluble salts).
  - Four common routes of exposure:
    - 1-Occupational poisoning: industry and chemical labs (production of plastics, solvents, enamels, papers, glues, jewelry, pesticides, fertilizers, etc.)
    - 2-Inadvertent, suicidal or homicidal ingestions
    - 3-Ingestion of plant products containing naturally occurring cyanogenic glycosides
    - 4-Inhalation of smoke from burning substances in closed space fire such as wool, silk, polyurethane or vinyls.
- In the setting of smoke inhalation and altered mental status, you should assume cyanide poisoning.***
- Cyanide blocks the ability of the cellular mitochondria to use oxygen thus producing a state of severe hypoxia despite the presence of oxygen (will have normal O<sub>2</sub> saturation). Anaerobic metabolism predominates, producing a lactic metabolic acidosis.
  - The time course and severity of the clinical effects of poisoning depend on the nature of the compound and the length and method of exposure. Mild to moderate symptoms include restlessness, anxiety, palpitations, dyspnea and headache. Severe symptoms include loss of consciousness, seizures, cardiac dysrhythmias, coma and death.
  - Patients with inhalational exposures often recover following rescue from toxic exposure. They do not require antidotal treatment if significant recovery occurs prior to receiving medical attention.
  - The odor of bitter almond oil on the breath is highly suggestive of cyanide poisoning, but its absence does not rule out the possibility.

<sup>\*a</sup> Ensure your environment is safe. Protect yourself from decontamination runoff.

<sup>\*b</sup> Hypotension - Ref. Table 8-2 and 8-3.

Cyanokits are carried by EMS Supervisors and District Chiefs. If treating, bring second Cyanokit to destination hospital or arrange for it to be brought to the hospital for potential continuation of therapy.

Cyanokit shall be administered through its own dedicated IV/IO.

### **Pediatric Dosing Considerations**

Reference Table 9-2 : Hydroxocobalamin Pediatric Dosing