Section: Drug Reference
Subject: SODIUM NITRITE
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Sodium Nitrite

1. CLASSIFICATION
   a. Naturally occurring chemical compound ($NaNO^2$)

2. ACTIONS / DESCRIPTIONS
   a. Induces the formation of methemoglobin by altering the ferrous iron (Fe^{+2}) in the blood to ferric iron (Fe^{+3})
   b. Methemoglobin combines with cyanide to for the non-toxic cyanmethemoglobin
   c. Produces vasodilation by relaxing smooth muscles
   d. In hydrogen sulfide (H_2S) poisoning, the H_2S is similarly drawn to the methemoglobin preventing the bonding of H_2S to the functional iron groups (ferric moiety) in the blood.

3. INDICATIONS
   a. Cyanide (C=N) poisoning
   b. Hydrogen Sulfide (H_2S) poisoning

4. CONTRAINDICATIONS
   a. Sodium Nitrite should not be administered to asymptomatic patients following exposure to cyanide

5. PRECAUTIONS
   a. Excessive methemoglobinemia may occur.

6. ADVERSE REACTIONS
   a. Cyanosis may occur at blood methemoglobin concentrations $\geq$ 15%. Symptoms usually do not appear until concentrations reach 30 – 40%
   b. Hypotension
   c. Weakness
   d. Tachycardia
   e. Dyspnea
   f. Dizziness and syncope

7. DOSAGE
   a. 300 mg IV over 5 minutes

8. DRUG ACTION TIME
   a. Onset: 2 – 5 minutes
   b. Duration: Varies