

# Southern Illinois Regional EMS System

## JJ-27 THIAMINE

1. Class:
  - 1.1. Vitamin (B<sub>1</sub>).
2. Description:
  - 2.1. Thiamine combines with adenosine triphosphate to form thiamine pyrophosphate, a coenzyme necessary for carbohydrate metabolism. Most vitamins required by the body are obtained through diet; however, certain states such as alcoholism and malnourishment may affect the intake, absorption, and utilization of thiamine. The brain is extremely sensitive to thiamine deficiency.
3. Onset and Duration:
  - 3.1. Onset: Rapid.
  - 3.2. Duration: Depends on the degree of deficiency.
4. Indications:
  - 4.1. Coma of unknown origin (with administration of dextrose 50% or Naloxone).
  - 4.2. Delirium tremens.
  - 4.3. Beriberi (rare).
  - 4.4. Wernicke's encephalopathy.
5. Contraindications:
  - 5.1. None significant.
6. Adverse Reactions:
  - 6.1. Hypotension from rapid injection or large dose.
  - 6.2. Anxiety.
  - 6.3. Diaphoresis.
  - 6.4. Nausea and vomiting.
  - 6.5. Allergic reaction (usually from IV injection; rate); angioedema.
7. Drug Interaction:
  - 7.1. None significant.
8. How Supplied:
  - 8.1. 1 and 2ml vials (100mg/ml).
9. Dosage and Administration:
  - 9.1. Adult:
    - 9.1.1. 100mg slow IV.
    - 9.1.2. 100mg IM.
  - 9.2. Pediatric:
    - 9.2.1. Not recommended in the prehospital setting.
10. Special Considerations:
  - 10.1. Pregnancy Category A (Category C if dose exceeds recommended daily allowance).
  - 10.2. Large IV doses may cause respiratory difficulties.
  - 10.3. Anaphylactic reactions have been reported.