

Southern Illinois Regional EMS System

JJ-7 DEXTROSE 50%

1. Class:
 - 1.1. Carbohydrate, hypertonic solution.
2. Description:
 - 2.1. The term dextrose is used to describe the six-carbon sugar d-glucose, the principal form of carbohydrate used by the body. 50% dextrose solution is used in emergency care to treat hypoglycemia and in the management of coma of unknown origin.
3. Onset and Duration:
 - 3.1. Onset: 1 minute.
 - 3.2. Duration: Depends on the degree of hypoglycemia.
4. Indications:
 - 4.1. Hypoglycemia.
 - 4.2. Altered level of consciousness.
 - 4.3. Coma of unknown origin.
 - 4.4. Seizure of unknown origin.
5. Contraindications:
 - 5.1. Intracranial hemorrhage.
 - 5.2. Increased intracranial pressure.
 - 5.3. Known or suspected cerebral vascular accident in the absence of hypoglycemia.
6. Adverse Reactions:
 - 6.1. Warmth, pain, burning from medication infusion.
 - 6.2. Hyperglycemia.
 - 6.3. Thrombophlebitis.
7. Drug Interactions:
 - 7.1. None significant.
8. How Supplied:
 - 8.1. 25g/50ml prefilled syringe (500mg/ml).
9. Dosage and Administration:
 - 9.1. Adult:
 - 9.1.1. 12.5 – 25g slow IV:
 - 9.1.1.1. May ne repeated once.
 - 9.2. Pediatric:
 - 9.2.1. 0.5 – 1g/kg IV/IO:
 - 9.2.1.1. 1 – 2ml/kg 50%.
 - 9.2.1.2. 2 – 4ml/kg 25%.
 - 9.2.1.3. 5 – 10ml/kg 10%.

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JJ-6 DEXTROSE 50% (continued)

10. Special Considerations:
 - 10.1. Pregnancy Category C.
 - 10.2. Draw blood sample before administration if possible.
 - 10.3. Perform blood glucose analysis before administration if possible.
 - 10.4. Extravasation may cause tissue necrosis:
 - 10.4.1. Use large vein and aspirate occasionally to ensure route patency.
 - 10.5. 50% dextrose solution sometimes may precipitate severe neurological symptoms (Wernicke's encephalopathy) in thiamine-deficient patient – for example:
 - 10.5.1. Alcoholics.
 - 10.5.1.1. This can be prevented by administering 100mg Thiamine IV.