

Southern Illinois Regional EMS System

JJ-7 DEXTROSE 50%

Class:

- Carbohydrate, hypertonic solution.

Description:

- 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.

Onset and Duration:

- Onset: 1 minute.
- Duration: Depends on the degree of hypoglycemia.

Indications:

- Hypoglycemia.
- Altered level of consciousness.
- Coma of unknown origin.
- Seizure of unknown origin.

Contraindications:

- Intracranial hemorrhage.
- Increased intracranial pressure.
- Known or suspected cerebral vascular accident in the absence of hypoglycemia.

Adverse Reactions:

- Warmth, pain, burning from medication infusion.
- Hyperglycemia.
- Thrombophlebitis.

Drug Interactions:

- None significant.

How Supplied:

- 25g/50mL prefilled syringe (500mg/mL).

Dosing and Administration:

- Adult:
 - 12.5 – 25g slow IV:
 - May need repeated once.
 - Adult IO administration needs Medical Control approval
- Pediatric:
 - 0.5 – 1g/kg IV/IO:
 - 1 – 2mL/kg of D50%.
 - 2 – 4mL/kg of D25%.
 - 5 – 10mL/kg of D10%.

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JJ-6 DEXTROSE 50% (continued)

Special Considerations:

- Pregnancy Category C.
- Draw blood sample before administration if possible.
- Perform blood glucose analysis before administration.
- Extravasation may cause tissue necrosis:
- Use large vein and aspirate occasionally to ensure route patency.
- 50% dextrose solution sometimes may precipitate severe neurological symptoms (Wernicke's encephalopathy) in thiamine-deficient patient – for example, alcoholics.
 - This can be prevented by administering 100mg Thiamine IV/IO.