

DEXTROSE 50% & 25%

PHARMACOLOGY & ACTIONS:

- Glucose is used by the body as quick energy
- Its use is regulated by insulin, which stimulates storage of glucose from the bloodstream lowering blood glucose levels.
- Glucagon, which mobilizes stored glucose into the bloodstream, raises glucose levels.

INDICATIONS:

- Hypoglycemic states usually associated with insulin shock in diabetes.
- The unconscious patient, when history is unobtainable but after a blood glucose test.
- CPR patients when the cause of arrest is not known
- In patients with any focal or partial neurologic deficit or altered mental status.
- Hypothermia, generalized.

CONTRAINDICATIONS:

- None noted

ADMINISTRATION:

- Perform a blood glucose test to determine level. Normal range 80-120 mg/dl.
- If glucose monitor is unavailable, draw blood for a red top tube (5 ml).
- Adult dose: 50 gm of Dextrose 50% IV into a large secure vein, if patient is not able to tolerate oral glucose.
- Pediatric dose: .25-.5 gm/kg of Dextrose **50%** IV or IO for 3 years and older
 .25-.5 gm/kg of Dextrose **25%** IV or IO for 3 years and under
- Recheck blood glucose 5 minutes after administration

SIDE EFFECTS & SPECIAL NOTES:

- Extravasation of dextrose will cause necrosis of tissue.
- IV should be secured in a large vein and free return of blood into the syringe or tubing should be checked 2-3 times prior to and during administration.

- If extravasation does occur, immediately dilute with up to 10 ml Lidocaine 1% or normal saline injected SQ into extravasated area.
- Dextrose may precipitate Wernicke's encephalopathy in alcoholics. If suspected, give Thiamine 50-100 mg IV prior to administration of dextrose.
- Do not draw blood for glucose determination from site proximal to an IV containing glucose or dextrose.
- Effect is delayed in elderly patients with poor circulation

CLASS: A

PROTOCOL(S) USED IN: Altered Mental Status/Coma, Hypoglycemia