

DEXTROSE

CLASSIFICATION	Carbohydrate
TRADE NAME(S)	D ₁₀ , Dextrose 10%, D ₅₀ , Dextrose 50%
DESIRED EFFECTS	Restores circulating blood sugar to normal states in hypoglycemia.
MECHANISM OF ACTION	Primary energy source distributed by blood to all tissues of body
INDICATIONS	<ul style="list-style-type: none"> • Hypoglycemia – Glucometer reading below 70 • Altered mental status • Coma or unresponsiveness • Status epilepticus
CONTRAINDICATIONS	<ul style="list-style-type: none"> • Cerebrovascular accident in presence of normal blood sugar
ADVERSE REACTIONS	<ul style="list-style-type: none"> • Tissue damage if extravasation occurs
DRUG INTERACTIONS	<ul style="list-style-type: none"> • None in the prehospital setting
PRECAUTIONS	<ul style="list-style-type: none"> • May precipitate Wernicke-Korsakoff syndrome in Thiamine deficient patients, often alcoholics
SPECIAL CONSIDERATIONS	Evaluate blood sugar using glucometer prior to administration of dextrose. Otherwise, treat empirically with Dextrose. Administering glucose will not produce adverse effects even if hyperglycemic or diabetic ketoacidosis is present. If no response after initial bolus, other causes of unresponsiveness should be considered
DOSING REGIMEN - ALTERED LEVEL OF CONSCIOUSNESS	<ul style="list-style-type: none"> • D10 – 25 grams (250 ml) IV/IO; May repeat if necessary. D10 is the drug of choice <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> • D50 – 25 grams (50 ml) IV/IO; May repeat if necessary <hr/> <ul style="list-style-type: none"> • Pediatric patients: <ul style="list-style-type: none"> ○ Weighs > 20 kg <ul style="list-style-type: none"> ▪ D10 5ml/kg or ▪ D50 1ml/kg ○ Weighs < 20 kg <ul style="list-style-type: none"> ▪ D10 5ml/kg or ▪ No D50 allowed ○ Neonates <ul style="list-style-type: none"> ▪ 2-4 ml/kg of D10 only

DOSING REGIMEN - STROKE	Same definition of hypoglycemia (< 70 mg/dL) applies to stroke patients, just as with all other patients, and should be treated accordingly
PROTOCOL LOCATION	<ul style="list-style-type: none"> • Altered LOC • Stroke