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## **Dextrose**

**Pharmacological Category:** Glucose-Elevating Agent

**Routes:** IV/IO

### **Indications:**

1. Hypoglycemia
2. Altered mental status

### **Precautions:**

1. Ensure patent line, extravasation may cause significant tissue damage.
2. Dextrose should be pushed slowly (e.g., over 1-2 minutes).

### **Expected effects:**

1. Increased blood glucose level
2. Improvement in altered mental status.

### **Notes:**

1. Instructions for diluting dextrose
  - a. To obtain dextrose 10%, discard 40 mL out of one amp of D50, then draw up 40 mL of NS into the D50 ampule.
  - b. To obtain dextrose 12.5%, discard 37.5 mL out of one amp of D50, then draw 37.5 mL of NS into the D50 ampule
  - c. To obtain dextrose 25%, discard 25 mL out of one amp of D50, then draw 25 mL of NS into the D50 ampule
2. May utilize 10% for all ages 5 mL/kg (0.5 gm/kg) up to 250 mL

### **Dosing: ADULT ALTERED MENTAL STATUS**

Indication: Patient is demonstrating signs of hypoglycemia, blood glucose is < 60 mg/dL.

Adults administer:

1. Dextrose 25 gm IV, titrate to fully awake and oriented.

### **Dosing: ADULT SEIZURES**

Indication: Seizure patient with blood glucose < 60 mg/dL

Adults administer:

1. Dextrose 25 gm IV

### **Dosing: PEDIATRIC ALTERED MENTAL STATUS**

Indication: Patient is demonstrating signs of hypoglycemia and blood glucose as follows:

1. 2 months old or younger and blood glucose is <40 mg/dL
2. 3 months old or older and blood glucose is <60 mg/dL

Pediatrics administer:

1. Dextrose according to MI MEDIC cards

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2. If MI MEDIC cards are not available use chart below:

**Dosing: PEDIATRIC SEIZURES**

Indication: Pediatric seizure patient and blood glucose as follows:

1. 2 months old or younger and glucose is <40 mg/dL
2. 3 months old or older and glucose is <60 mg/dL

Pediatrics administer:

1. Dextrose according to MI MEDIC cards
2. If MI MEDIC cards are not available utilize the chart below.

**Dosing: PEDIATRIC CARDIAC ARREST**

Indication: Pediatric patients in cardiac arrest with a blood glucose is less than 60 mg/dL

Pediatrics administer:

1. Dextrose according to MI MEDIC cards
2. If MI MEDIC cards are not available utilize the chart below.
3. If chart is not available administer dextrose 0.5 g/kg

Color	Age	Weight	Dose	Concentration	Volume		Concentration	Volume
Grey	0-2 months	3-5 kg (6-11 lbs.)	2.5g	Dextrose 12.5%	20 mL	<b>OR</b>	Dextrose 10%	25 mL
Pink	3-6 months	6-7 kg (13-16 lbs.)	3.25g	Dextrose 25%	13 mL	<b>OR</b>	Dextrose 10%	33 mL
Red	7-10 months	8-9 kg (17-20 lbs.)	4.25g	Dextrose 25%	17 mL	<b>OR</b>	Dextrose 10%	43 mL
Purple	11-18 months	10-11 kg (21-25 lbs.)	5g	Dextrose 25%	20 mL	<b>OR</b>	Dextrose 10%	50 mL
Yellow	19-35 months	12-14 kg (26-31 lbs.)	6.25g	Dextrose 25%	25 mL	<b>OR</b>	Dextrose 10%	63 mL
White	3-4 years	15-18 kg (32-40 lbs.)	8g	Dextrose 25%	32 mL	<b>OR</b>	Dextrose 10%	80 mL
Blue	5-6 years	19-23 kg (41-50 lbs.)	10g	Dextrose 25%	40 mL	<b>OR</b>	Dextrose 10%	100 mL
Orange	7-9 years	24-29 kg (52-64 lbs.)	12.5g	Dextrose 50%	25 mL	<b>OR</b>	Dextrose 10%	125 mL
Green	10-14 Years	30-36 kg (65-79 lbs.)	15g	Dextrose 50%	40 mL	<b>OR</b>	Dextrose 10%	150 mL

Used in the Following Protocols

Altered Mental Status (Section 3 Adult Treatment)

Seizures (Section 3 Adult Treatment)

Pediatric Altered Mental Status (Section 4 Obstetrics and Pediatrics)

Pediatric Seizures (Section 4 Obstetrics and Pediatrics)

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Pediatric Cardiac Arrest – General (Section 6 Pediatric Cardiac)