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



Michigan
MEDICATION SECTION
DEXTROSE

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Pediatric Cardiac Arrest – General (Section 6 Pediatric Cardiac)