D\textsubscript{50}W

1.0 Classification
   • Carbohydrate

2.0 Mechanism of Action
   • Increases blood glucose

3.0 Indications
   • Patients with signs of hypoglycemia and a blood glucose level less than 4.0 mmol/L who are unable to take oral glucose

4.0 Contraindications
   • None

5.0 Precautions
   • Extravasation of D\textsubscript{50}W may lead to tissue necrosis and can be catastrophic, ensure the IV line is patent prior to dextrose administration

6.0 Route
   • May be given IV/IO

7.0 Dosage
   Adult
   • 25 g (50 mL) of dextrose
   • A second dose may be given if symptoms do not resolve and glucometer reading remains less than 4.0 mmol/L

   Pediatric
   • 0.5 g/kg (2 mL/kg) of a 25% solution (D\textsubscript{25})
   • A second dose may be given if symptoms do not resolve and glucometer reading remains less than 4.0 mmol/L
   • Maximum total dose of 25 g

8.0 Supplied
   • 25 g in 50 mL preloaded syringe

9.0 May Be Given By
   • PCP/ICP/ACP/CCP

10.0 Adverse effects
    • Hyperglycemia

11.0 Special notes

To make a D\textsubscript{25} solution from D\textsubscript{50}: Dispose of 25 mL of the D\textsubscript{50} solution from the preloaded syringe and replace with 25 mL of normal saline.
• Localized irritation can occur when a small vein is used; attempt to administer through an IV located in a larger vein
• 25 g of D50W should increase the blood sugar by approximately 5-6 mmol/L
• Pregnancy category C [if the patient will benefit from a Category C drug, it is generally used]

12.0 References
• Altered Level of Consciousness Clinical Practice Guideline
• Compendium of Pharmaceuticals and Specialties (CPS)

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