	Department Name Address	ALS	Paramedic
		Revision #	
		Implementation Date	
Protocol	2.2.24 Diabetic Emergencies - Pediatric	Last Reviewed/Update Date	
Author / Owner		Medical Director	

Glucose, a form of sugar, is the body's basic source of energy. An abnormal blood sugar level has an effect on all organs including the heart and the brain. Returning to normal perfusion as quickly as possible is the ultimate goal.

## Conscious patient – low blood sugar

Children with diabetes are at risk for a low blood sugar emergency as their activity levels may exhaust blood sugar levels.

- 1. Baseline care standards.
- 2. Administer high flow oxygen.
- 3. Obtain blood glucose level. If blood glucose is < 60mg/dl then;
- 4. Establish IV and:
  - For children 10 to 80 pounds (3kg-37kg). Administer *Dextrose 25% at 2ml/kg* IV (mix 25ml of D50 with 25ml of Normal Saline).
  - For Children over 80 pounds treat as adult. Administer *Dextrose 50% at 2ml/kg IV*.
- 5. If the child is wearing an insulin pump, turn it off.
  - Administration of glucose should not be delayed to turn off the pump.
- 6. If unable to establish an IV, administer *Glucagon 0.1mg/kg IM*. **Max dose is 1mg.**
- 7. When mental status has returned to normal, the patient should be strongly encouraged to eat a carbohydrate snack.

## Conscious patient - high blood sugar

It is uncommon for an ambulance to be dispatched for a child with a high blood sugar as most parents would have sought care for their child previously as this is a slow onset illness. However, it is possible in a new onset of juvenile diabetes or in the case of a child with a history of diabetes who has been ill for a few days.

- 1. Baseline care standards.
- 2. Administer high flow oxygen.
- 3. Obtain blood glucose level.
- 4. Establish IV:
  - IV fluid bolus of 20ml/kg over 30-60 minutes for blood glucose levels above 300 mg/dl.
  - TKO/KVO if glucose level is below 300mg/dl.
- 5. If the child is wearing an insulin pump, leave it on.
- 6. Transport in the recovery position.
- 7. If patient is altered and you are unable to determine by blood sample or history, treat as low.

## **Unconscious Patient**

Patients that are unconscious should never have anything by mouth.

- 1. Baseline care standards.
- 2. Administer high flow oxygen.
- 3. Obtain blood glucose level.
- 4. **Hypoglycemic -** Establish IV and:
  - For children 10 to 80 pounds (3kg-37kg). Administer *Dextrose 25% at 2ml/kg* IV (mix 25ml of D50 with 25ml of Normal Saline).
  - For Children over 80 pounds treat as adult. Administer *Dextrose 50% at 2ml/kg IV*.
- 5. Hyperglycemic-
  - IV fluid bolus of 20ml/kg over 30-60 minutes for blood glucose levels above 300 mg/dl.
  - TKO/KVO if glucose level is below 300mg/dl.

EMS PROTOCOLS
2.2.24 DIABETIC EMERGENCIES-PEDIATRIC
DATE APPROVED
PAGE 3 of 3

6.	If the child is wearing an insulin pump and is hypoglycemic, turn it off.
7.	Transport in the recovery position.
8.	Monitor airway and vital signs closely.
9.	If not transporting, ensure that the patient has eaten a carbohydrate snack.

## Disclaimer

Medical Director's Signature

The protocols have been developed by the North Dakota Department of Health are meant to be used as general guidance for developing protocols for individual emergency medical services agencies. These sample protocols are not meant to be medical or legal advice; nor do they establish standards of care. Each emergency medical services agency must tailor protocols based on their specific needs or capabilities. Local medical directors must be consulted with and approve any protocol(s) prior to becoming operational in an emergency medical services agency. directors must be consulted with and approve any protocol(s) prior to becoming operational in an emergency medical services agency. The North Dakota Department of Health make no representation on the accuracy of information contained herein and accepts no liability for any loss or damage arising from any content error or omission.

Date