

# Hypoglycemia Therapy

## For patients on insulin drip:

- If blood glucose drops between 80 to 99 mg/dL decrease IV insulin to 0.05units/kg/hour and contact the Supervising Physician.
- If blood glucose drops < 80 mg/dL stop IV insulin, follow hypoglycemia protocol located under supportive documents, and contact Supervising Physician.
- Continue IV insulin infusion until bicarbonate level is >15mmol/L, anion gap is normalized, or blood ketones are <0.6 mmol/L.

## For patients receiving rapid acting subcutaneous insulin:

- If blood glucose drops between 80 to 99 mg/dL decrease IV insulin to 0.05units/kg/hour and contact the Supervising Physician.
- If blood glucose drops < 80 mg/dL stop IV insulin, follow hypoglycemia protocol located under supportive documents, and contact Supervising Physician.
- Continue IV insulin infusion until bicarbonate level is >15mmol/L, anion gap is normalized, or blood ketones are <0.6 mmol/L.

## Hypoglycemia protocol

### 1. Patients currently in DKA on IV insulin drip:

- Blood glucose < 80 mg/dL
  - i. Stop insulin drip. Maximize D<sub>10</sub> NS with additives IV fluids if not already at 100%. Recheck glucose in 15 minutes. If > 80 mg/dL continue current management and contact Supervising Physician. If blood glucose remains < 80 mg/dL treat with:
    - ii. If patient is alert and oriented without nausea/vomiting treat the patient with 15 grams of simple carbohydrate to eat/drink: 4 ounces of fruit juice, 5-6 ounces of non-caffeinated regular soda, 6-7 saltine crackers, or 1 package of snack size crackers. Recheck blood glucose in 15 minutes. If blood glucose is < 80 mg/dL repeat treatment and contact Supervising Physician.
    - iii. If the patient is not alert and oriented or has nausea/vomiting administer D<sub>25</sub>W 1 ml/kg bolus IV and contact Supervising Physician.

### 2. Patients on subcutaneous insulin:

- Blood glucose <80 mg/dL
  - i. Mild hypoglycemia:
    - ii. Signs/symptoms (shaky, weak, tired, hungry, irritable, or difficulty focusing), but alert enough to safely take oral fluids/solids.
    - iii. Administer 15 grams of simple carbohydrate to eat/drink: 4 ounces of fruit juice, 5-6 ounces of non-caffeinated regular soda, 6-7 saltine crackers, or 1 package of snack size crackers. Recheck blood glucose in 15 minutes and repeat above steps if still hypoglycemic. If blood glucose does not increase to > 80 mg/dL within 30 minutes contact Supervising Physician.
  - iv. Moderate to severe hypoglycemia:

v. Signs/symptoms (pale, sweaty, confused, distant, poor coordination, slurred speech, difficulty cooperating, altered mental status, semi-conscious, unconscious, or seizing).

vi. If patient is able to cooperate, follow directions, and swallow safely administer 15 grams of simple carbohydrate to eat/drink: 4 ounces of fruit juice, 5-6 ounces of non-caffeinated regular soda, 6-7 saltine crackers, or 1 package of snack size crackers. Recheck blood glucose in 15 minutes and repeat above steps if patient remains hypoglycemic. If blood glucose does not increase to > 80 mg/dL within 30 minutes contact Supervising Physician.

vii. If patient is not able to cooperate and swallow safely and has IV access administer either D<sub>10</sub>W 5 ml/kg bolus IV OR D<sub>25</sub>W 1 ml/kg bolus IV.

viii. If patient does not have IV access give glucagon IM injection.

ix. 0.5 mg IM for <6 y/o.

x. 1 mg IM for 6 y/o and older.

*These guidelines do not establish a standard of care to be followed in every case. It is recognized that each case is different and those individuals involved in providing health care are expected to use their judgment in determining what is in the best interests of the patient based on the circumstances existing at the time. It is impossible to anticipate all possible situations that may exist and to prepare guidelines for each. Accordingly these guidelines should guide care with the understanding that departures from them may be required at times.*