3.1 DIABETES IN PREGNANCY

3.1.6 HYPOGLYCAEMIA MANAGEMENT

Key words: hypoglycaemia, management of hypoglycaemia, symptoms hypoglycaemia, treatment hypoglycaemia

AIM

Women with type 1, type 2 and gestational diabetes mellitus and who are using insulin or oral medications will be provided with the knowledge and skills to be able to:

- Recognise the signs and symptoms of hypoglycaemia.
- Be able to adequately treat hypoglycaemia
- Recognise the reason for hypoglycaemia and take steps to avoid a reoccurrence

KEY POINTS

1. Hypoglycaemia is defined as a blood glucose level < 4.0 mmol/L.
2. Symptomatic hypoglycaemia in a patient treated with insulin or an oral hypoglycaemic agent (OHA) is an emergency and requires prompt correction.
3. Hypoglycaemia with mild or no symptoms is usually successfully treated with a fast acting carbohydrate (see below) followed by a snack or meal.

SIGNS AND SYMPTOMS

<table>
<thead>
<tr>
<th>ADRENERGIC SYMPTOMS (Sympathetic Nervous System)</th>
<th>NEUROGLYCOPTAENIC SYMPTOMS</th>
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<tr>
<td>• sweating</td>
<td>• confusion, drowsiness</td>
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<tr>
<td>• tremor</td>
<td>• inappropriate behaviour</td>
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<td>• anxiety</td>
<td>• perioral and peripheral tingling</td>
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<td>• unsteady gait</td>
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<td>• aggressive behaviour</td>
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<td>• convulsions</td>
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<td>• coma</td>
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Note: Many women recognise early warning signs and treat themselves. However, with confusion or drowsiness, the patient may be unable to initiate treatment.
MANAGEMENT IF PATIENT IS CONSCIOUS:

Give fast acting carbohydrate, e.g.:
- sweet drink – one glass (250mL) of cordial, soft drink (NOT diet drink)
- five to six jelly beans
- 3 teaspoons honey
- two to three sweet biscuits
- three barley sugars.
- glucose gel 15g (glutose)
- Check blood glucose level as soon as practical.

Repeat above treatment if symptoms persist or BGL < 4.0 in 10 minutes.

Follow up
- Follow up with a longer acting low GI carbohydrate, e.g.:
  - Sandwich
  - Snack e.g. fruit and / or 2 – 4 cracker biscuits & cheese
  - Meal
- Check blood glucose as soon as practical. Continue testing the blood sugar level half hourly until it is over 4mmol/L. Recheck blood sugar level in 2 hours.
- Discuss the possible causes of the hypo with the woman (prevention management) and adjust insulin regimen if required (discuss with diabetes team).

IF PATIENT IS UNCONSCIOUS, UNCOOPERATIVE:
- Dial 55 - State ‘Code Blue Medical Emergency’ and location (e.g. ward and room number.).
- If glucagon (Glucagon®) is available, give intramuscularly. If the woman is not responding within 10 minutes IV glucose is required.
- Set up / obtain IV access
- Give intravenous 50% glucose, 50 mL
- Leave IV cannula for at least 6 hours as hypoglycaemia may recur

Follow–up
- Once the woman is fully alert and cooperative, provide her with a snack or meal (e.g. glass of milk, dry biscuits & cheese/ sandwiches)
- Repeat blood glucose level in 20 –30 minutes and if > 4.0mmol/L repeat in 1 hour.
- Document all blood glucose levels, IV / IM treatment and food/drink ingested on the MR 265.
- Notify Physician/ Credentialed Diabetes Educator to review insulin regimen where practical.
- Discuss with the woman the possible causes of the hypo (prevention management), insulin adjustment may be required (discuss with diabetes team).