Insulin Intravenous Infusion (Maternity) Order / Intrapartum Blood Glucose Record

Facility: ...........................................................................................................
Ward / Unit: ....................................................................................................

### Diabetes type:
- T1DM
- T2DM
- GDM

### Target BGL range:
**mmol/L** (generally 4–10 mmol/L)

### BGL frequency:
- After change to infusion rate or change to IV fluids, check BGL hourly.
- **1 Hourly**
- **2 Hourly** (only if BGL is within target range for at least 6 hours)

### Important information about ordering insulin:
- All patients on IV insulin must have a continuous IV glucose infusion unless specified by doctor (refer to IV Fluid Chart).
- Run IV insulin and IV glucose through the same line.
- If ketoadisis, hyperemesis gravidarum, or IV insulin for greater than 24 hours, refer to endocrine / obstetric medicine.
- Stop IV insulin and slow acting subcutaneous insulin required, give slow acting subcutaneous insulin at least 2 hours before stopping IV insulin.
- Order meal / bolus dose using Insulin Subcutaneous (Maternity) Order and Blood Glucose Record.

### Monitoring record

<table>
<thead>
<tr>
<th>Monitor BGL in corresponding range box</th>
<th>Date (DD/MM)</th>
<th>Initial infusion rate</th>
<th>Revised infusion rate</th>
<th>2nd revised infusion rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALERTS</td>
<td>BGL (mmol/L)</td>
<td>Time (24 hr)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check ketones and notify doctor</td>
<td>Greater than 12</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check ketones and notify doctor</td>
<td>10.1–12</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If two consecutive, notify doctor</td>
<td>8.1–10</td>
<td></td>
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<tr>
<td></td>
<td>6.1–8</td>
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<tr>
<td></td>
<td>4–6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treat hypoglycaemia and notify doctor</td>
<td>Less than 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Refer to subcutaneous insulin order</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Notify doctor if ketones:</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Blood: 0.6 mmol/L and above</td>
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<tr>
<td>Urinary: moderate/++ and above</td>
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<tr>
<td>Doctor notified</td>
<td></td>
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</tr>
</tbody>
</table>

### Administration record insulin IV infusion

<table>
<thead>
<tr>
<th>Insulin (units) and sodium chloride 0.9% (mL)</th>
<th>Date (DD/MM)</th>
<th>Start time (24 hr)</th>
<th>Midwife / Nurse 1</th>
<th>Midwife / Nurse 2</th>
<th>Time stop (24 hr)</th>
<th>Volume infused (mL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>50 units Actrapid Insulin and 49.5mL Sodium Chloride 0.9%</td>
<td>/</td>
<td>:</td>
<td>:</td>
<td>:</td>
<td>:</td>
<td>:</td>
</tr>
<tr>
<td>50 units Actrapid Insulin and 49.5mL Sodium Chloride 0.9%</td>
<td>/</td>
<td>:</td>
<td>:</td>
<td>:</td>
<td>:</td>
<td>:</td>
</tr>
</tbody>
</table>
Guidelines for treating hypoglycaemia (BGL less than 4 mmol/L)

**Is the patient conscious and cooperative?**

- **NO**
  - If on insulin infusion, **stop insulin infusion** and continue glucose infusion.
  - Position the patient on side and maintain airway.
  - Call a Code Blue/Medical Emergency.
  - Never give anything orally to a patient who is unconscious or drowsy.
  - If hypoglycaemia within 4 hours after mealtime insulin, reduce the dose of that mealtime insulin by 20% the following day;

**Is the patient on an insulin infusion?**

- **Yes**
  - Stop insulin infusion, continue glucose infusion and contact doctor urgently.

**Is the patient nil by mouth or nil by tube?**

- **No**
  - Correct avoidable causes (adjusting the insulin infusion is generally not required unless hypoglycaemia reoccurs);
  - If cause not identified or cannot be corrected:
    - If hypoglycaemia within 4 hours after mealtime insulin, reduce the dose of that mealtime insulin by 20% the following day;
    - Otherwise, reduce basal insulin dose by 20%.

**The patient is receiving food orally or by tube**

- **Yes**
  - Give 1 serve of Fast-Acting Carbohydrate from list below.

**Contact doctor urgently AND**

- If IV access, RN/doctor to administer 30mL 50% glucose as slow IV push.
- If no IV access, administer 1mg glucagon IM (1 dose only).

**If the patient is NBM, RN/doctor to administer 30mL 50% glucose as slow IV push.**

**If the patient is not NBM, give one serve Fast-Acting Carbohydrate from list below.**

**Recheck BGL after 15 mins.**

- **No**
  - BGL greater than 4?
    - **Yes**
      - Doctor to revise insulin infusion rate and concurrent glucose infusion.
      - Recomence insulin infusion and glucose infusion at adjusted rate 15 minutes after hypoglycaemic event has resolved.
    - **No**
      - If glucagon injection has been administered, give follow-up oral carbohydrates or IV glucose.
      - Document hypoglycaemic event on Page 1 and document actions taken in patient record.
      - Notify doctor to review recent diabetes treatment. Doctor must provide a plan for continued BGL monitoring.
      - Beware of recurrent hypoglycaemia! If hypoglycaemia recurs, seek expert advice.
      - After 1 hour, repeat BGL.

**Fast-Acting Carbohydrate**

- 100mL Lucozade™
- 1 serve Polyjuole™ as per directions
- 150mL lemonade or other softdrink (not diet)
- 10 Glucodin™ tablets
- 3 teaspoons/sachets sugar dissolved in 50mL water
- 7 small or 4 large glucose jellybeans
- 150mL orange juice
- 30mL cordial (not diet) mixed with 150mL water
- 150mL orange juice
- 7 small or 4 large glucose jellybeans
- 1 tub pre prepared thickened cordial (not diet)
- 3 individual serves of jam (not diet)
- 1 tub pureed fruit
- 1 serve thickened milk drink
- 150mL enteral feed

**Slow-Acting Carbohydrate**

- 150mL milk
- 1 tub (200g) yoghurt
- 1 slice bread
- 2 sweet plain biscuits
- 1 piece fruit
- Next meal (if being served within 30 mins)

**Diabetes treatment review following treated hypoglycaemia**

- If eating normally, do not withhold subsequent mealtime or basal insulin
- Review diabetes management for causes of hypoglycaemia:
  - Correct avoidable causes (adjusting the insulin infusion is generally not required unless hypoglycaemia reoccurs);
  - If cause not identified or cannot be corrected:
    - If hypoglycaemia within 4 hours after mealtime insulin, reduce the dose of that mealtime insulin by 20% the following day;
    - Otherwise, reduce basal insulin dose by 20%.