Clinical Practice Guidelines: Medical/ Diabetic emergency: Hypoglycaemia

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<th>Date</th>
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<tr>
<td>Purpose</td>
<td>To ensure consistent management of patients with Hypoglycaemia.</td>
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<td>Scope</td>
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<tr>
<td>Author</td>
<td>Clinical Quality &amp; Patient Safety Unit, QAS</td>
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Diabetic emergency: Hypoglycaemia

Glucose is an essential metabolic fuel for the brain and a constant supply is critical for normal neurological function. Hypoglycaemia is defined as a BGL < 4.0 mmol/L and this can occur in any patient, regardless of a history of diabetes.\(^1\) Intravenous glucose is the recommended first line management strategy in patients unable to swallow oral glucose and treatment should aim to achieve a BGL of 4.0–8 mmol/L. If there is no improvement in conscious state following such an increase in BGL, other causes for the ALOC should be considered.

Clinical features

Automatic features (*warning signs*)

- Diaphoresis, hunger, tingling around the mouth, tremor, tachycardia, pallor, palpitations and anxiety.
- These warning signs may be lost in patients with repeated or prolonged hypoglycaemia.\(^2\)

Neurological features

- *Consider hypoglycaemia in all patients who have an ALOC.*
- Lethargy, change in behaviour, headache, visual disturbance, slurred speech, dizziness, ALOC, seizures, coma.
- Patients may present with signs/symptoms mimicking intoxication or stroke.

Other considerations

- Chronic, poorly controlled diabetics may be relatively hypoglycaemic despite having a BGL > 4.0 mmol/L.\(^2\)
- Signs of hypoglycaemia may be masked in patients taking beta blocker medications.\(^3\)

Risk Assessment

- Caution is required if the patient is agitated, aggressive or violent.
- Consideration should be given to the possibility of an accidental, or intentional hypoglycaemic agent medication overdose.
**Additional information**

- Ensure primary causes of hypoglycaemia are considered as these often require detailed medical assessment.
- Patients on oral hypoglycaemia agents may later develop recurrent hypoglycaemia and therefore transport to hospital is recommended.
- Diabetes Service Referral is to be considered for all patients (irrespective of whether transported or not) who present with diabetic related complications (e.g. hypo/hyperglycaemia). Established referral pathways operate in all QAS LASNs.

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### CPG: Paramedic Safety

- Can patient safely take oral glucose?

  - *Y* Yes: **Consider:**
    - Oral Glucose
    - Diabetes Service Referral

  - *N* No: IV access achieved?

    - *Y* Yes: **Consider:**
      - Glucose 10% [5]
      - Diabetes Service Referral

    - *N* No: Is BGL > 4 mmol/L?

      - *Y* Yes: Transport to hospital *

      - *N* No: Can patient safely take oral glucose? (Re-iterate from protocol)

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Note: Officers are only to perform procedures for which they have received specific training and authorisation by the QAS.