

### Purpose:

- Hypoglycemia (low blood glucose) with diabetes can be a serious and underestimated clinical problem that has significant morbidity and mortality.
- More specifically the older persons with diabetes:
  - May have fewer symptoms of hypoglycemia
  - May experience more severe and prolonged episodes, that can precipitate a cardiovascular event
  - Are frequently on multiple medications and/or have kidney or liver impairment which may lead to impaired breakdown of medications
- It is important to prevent, recognize, and treat hypoglycemic episodes promptly and to raise the blood glucose to a safe level greater than 5 mmol/L.

### Scope:

- RN/RPN/LPN/Dietitian/Physician  
Long-term Care, Island Wide

### Outcomes:

- Hypoglycemic episodes (low blood glucose) will be prevented and/or recognized and treated promptly.
- The blood glucose will be raised to a safe level in order to avoid acute complications of hypoglycemia.

## 1.0 Equipment

- Bedside Blood Glucose Monitoring (BBGM)
- Glucose monitoring strips
- Carbohydrate

## 2.0 Procedure

Steps	Rationale/Key Points
<ul style="list-style-type: none"> <li>• If Bedside Blood Glucose Monitoring (BBGM) is less than 5 mmol/L initiates hypoglycemia guideline (see below) and notify physician (<b>URGENT</b>).</li> <li>• If Bedside Blood Glucose Monitoring (BBGM) is less than 5 mmol/L and resident is <b>able to ingest</b>:</li> <li>• Give oral ingestion of 15g carbohydrate (CHO)</li> <li>• Wait 15 minutes and retest Blood Glucose.</li> <li>• If Bedside Blood Glucose Monitoring (BBMG) is</li> </ul>	<p>Examples of 15g of carbohydrate (CHO) for treatment of hypoglycemia include:</p> <ul style="list-style-type: none"> <li>• 3 teaspoons (15 ml) or 3 packets of table sugar dissolved in water</li> <li>• 3/4cup (175 ml) juice or regular soft drink</li> <li>• 1 packet (15 ml) honey or jam</li> <li>• 6 life savers (1 = 2.5g CHO)</li> <li>• 15g glucose in the form of glucose tablets</li> <li>• 15g glucose in the form of glucose gel</li> </ul>

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less than 5 mmol/L re-treat with 15g CHO, wait 15 minutes and retest Blood Glucose. <ul style="list-style-type: none"> <li>Continue to treat/test until Bedside Blood Glucose Monitoring (BBGM) is greater than 5 mmol/L.</li> <li>If a meal is more than 30 minutes away, a snack containing CHO and protein should be provided.</li> </ul>	Example of snack: <ul style="list-style-type: none"> <li>1 slice bread and 1 oz (30g) cheese or meat</li> </ul>
<ul style="list-style-type: none"> <li>If Bedside Blood Glucose Monitoring (BBGM) is less than 5 mmol/L and resident is <b>unable to ingest but is conscious</b>:</li> <li>Give 1 mg glucagon (intramuscularly).</li> <li>Wait 10 minutes and retest Bedside Blood Glucose Monitoring (BBGM).</li> <li>If Bedside Blood Glucose Monitoring is less than 5 mmol/L give 1 mg glucagon (intramuscularly).</li> <li>Notify physician.</li> </ul>	
<ul style="list-style-type: none"> <li>If Bedside Blood Glucose Monitoring (BBGM) is less or equal to 5 mmol/L and resident is <b>unconscious</b>:</li> <li>Give 1 mg glucagon (intramuscularly).</li> <li>Wait 10 minutes and retest Bedside Blood Glucose Monitoring (BBGM) is less than 5mmol/L give 1 mg glucagon (intramuscularly).</li> <li>Notify physician.</li> <li>If physician is not available, calling 11 and transfer to Emergency if resident is unconscious or unresponsive.</li> <li>Notify family of the event and outcomes.</li> </ul>	
<b>Documentation:</b> <ul style="list-style-type: none"> <li>Resident Health Record and Blood Glucose form.</li> <li>In Electronic Health Record (EHR) in Interactive I&amp;O (Quick View)</li> </ul> <p>Review/Update Plan of Care as required. In EHR: Interdisciplinary Plan of Care (IPOC)</p>	
<b>Following a hypoglycemic event:</b> <ul style="list-style-type: none"> <li>Assess factors that may have contributed to the hypoglycemia such as inadequate carbohydrate (CHO) intake at meals/snacks or change in physical activity. Consult with dietician.</li> <li>Review with physician/pharmacist the antihyperglycemic medication and adjust treatment if needed.</li> </ul>	Update Plan of Care if new interventions are necessary to prevent future occurrences.

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### 3.0 Definitions

- **Hypoglycemia:** A blood glucose reading less than 4 mmol/L with symptoms (e.g. trembling, sweating, palpitations, nausea, hunger, confusion, drowsiness, weakness. Difficulty speaking and headache.
- **Hypoglycemia specific to an older population:** Blood glucose reading less than 5 mmol/L.

### 4.0 References

- Link to Glucose Meters Learning Hub:  
[https://intranet.viha.ca/departments/laboratory\\_services/poct/Pages/glucosemeters.aspx](https://intranet.viha.ca/departments/laboratory_services/poct/Pages/glucosemeters.aspx)

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