# UKINETS Bitesize Guidance for the Nutritional Management of Insulinomas

Patients should be screened for malnutrition using a validated nutrition risk screening tool e.g. MUST, SGA, NRS-2002. Patients at risk should be referred to a dietitian.Specialist dietitian or clinical nurse specialist input is recommended alongside this.

## Glucose Monitoring

There are no agreed guidelines on recommended frequency or method of glucose monitoring and should be guided by the MDT.

| Capillary Blood Glucose (CBG) | Continuous Glucose Monitoring (CGM) |
|---|---|
| • More accurate<br>• More painful<br>• Less practical | • Less accurate than CBG, especially at lower levels<br>• Results often have a slight delay<br>• More practical<br>• Can provide 24hr sensor glucose readings<br>• Can have predictive low glucose alerts<br>• Access can be challenging – liaise with diabetes teams regarding funding requests |

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## First Line Advice – Dietary Management

- Low glycaemic index (GI) diet based around wholegrain carbohydrates, fibre, protein and fats
- Educate on carbohydrate awareness early in diagnosis
- Regular meals and snacks
- Adjust amount, type and timing of carbohydrate if hypoglycaemia persists

## Second Line Advice – Corn Starch

- Mix with water, milk, yoghurt or other cold fluids/desserts
- Start with 1g/kg body weight, or ideal body weight for those with obesity, every 4 to 6 hours
- Titrate dependent on frequency and severity of hypoglycaemia e.g. increasing by 10-30% at a time or reducing the gap between carbohydrate intake
- Taken in addition to or instead of meals/snacks
- An overnight/3am dose of corn starch may be needed
- Monitor gastrointestinal symptoms e.g. bloating, wind, altered bowel habits

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## Third Line Advice – Modified Corn Starch Products e.g. Glycosade

- Mix with water, milk, yoghurt or other cold fluids/desserts
- Match or exceed the current tolerated corn starch dose
- Titrate dependent on frequency and severity of hypoglycaemia e.g. increasing by 10-30% at a time or reducing gap between carbohydrate intake
- Take in addition to or instead of meals/snacks dependent on the timing and severity of hypoglycaemia
- Associated with fewer gastrointestinal side effects

## Fourth Line Advice – Artificial Nutritional Support

- Consider enteral feeding if unable to prevent hypoglycaemia orally
- Ensure there is a contingency plan in the event of loss of access
- Consider gastrostomy or jejunostomy feeding instead of nasal feeding tubes to reduce displacement risk

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- If enteral routes are contraindicated, consider parenteral nutrition

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## Hypoglycaemia Management

- <3.5mmol/L is best practice however the threshold can be adjusted to <3.5mmol - L-4.0mmol/L based on the individual level of risk
- Confirm hypoglycaemia with CBG
- If glucose <3.5mmol/L treat with 15-20g rapid acting carbohydrate e.g 4-5x Jelly Babies, 4-5x glucose tablets, 150-200ml orange juice
- Check CBG after 10-15minutes. If still <3.5mmol/L take a further 15g rapid carbohydrate.
- Repeat until >3.5 mmol/L. Seek medical help if hypo persists after 3 treatments
- Once glucose levels >3.5mmol/L, either follow with the next meal, if due, or 15-30g of slower acting carbohydrates e.g. 1-2x slices of granary toast, 1-2x piece(s) of fruit
- Hypoglycaemia unawareness can occur if glucose levels are persistently low, increasing risk of severe hypoglycaemia. Glucose sensors with alerts can be useful to manage these effects

## Additional Considerations

- Weight gain is likely due to the nutritional support provided
- Some treatments are weight positive e.g. diazoxide and corticosteroids
- Minimising weight gain may be possible by replacing higher fat foods with lower fat options while adhering to other dietary principles