### Hypoglycaemia

- Andrew, aged 5, fasting for surgery – develops hypoglycaemia
- Hypoglycaemia is a condition characterised by low blood sugar, or abnormally low levels of glucose in the blood
- The condition is a recognised complication among children with type 1 diabetes, but may also occur in children or teens with type 2 diabetes. Inadequate dietary intake, improperly calculated insulin dose, minor illness, or excessive activity without sufficient food/fluids can result in hypoglycaemia
- If uncorrected, hypoglycaemia can lead to unconsciousness. In very rare cases, the victim may suffer a seizure
- Hypoglycaemia may also be due to metabolic or other endocrine disorders. Causes of hypoglycaemia in children without diabetes include inborn errors of metabolism, insulin-producing tumours, certain hormonal deficiencies, medications, diarrhoeal illnesses or post-GI surgical complications. Fasting hypoglycaemia is more common in infants and younger or low body weight children. Fasting or intercurrent illness may unmask underlying problems
- A hypoglycaemic child may appear irritable, sweaty, jittery or confused, and may complain of being hungry. The child may be cool, have slightly raised BP, increased RR, decreased level of consciousness, abdominal pain and/or changes in visual field
- In most cases, a snack of quick-acting carbohydrate will remedy the situation. Glucagon can also be given. In more critical cases, a bolus of IV/IO dextrose 10% may be required.

### Aim:

- Recognise a deteriorating patient and refer appropriately to senior clinician

### Learning Outcomes:

- Obtain adequate history
- Obtain appropriate vital signs at appropriate time intervals
- Refer appropriately
- Communicate effectively

### Equipment:

- Instructor summary card
- Instructor prompt card
- Completed medication chart
- PEWS chart 5-11 years
- ISBAR/escalation poster
- Sepsis 6 poster
Present the case history below:

**Scenario history**
Andrew, aged 5 years, fasting for surgery

**Initial candidate briefing**
Andrew is a 5 year old boy, admitted to the surgical day ward for tonsillectomy.

Apart from chronic symptoms related to enlarged tonsils and adenoids, he is generally fit and well, alert and communicative.

His pre-admission instructions were to fast from midnight, but he last ate and drank before 8pm last night. He has just been cancelled from this morning’s list due to an emergency in theatre. He is first on the afternoon list in 2 hours.

His mother is concerned that he is cold, and not himself. It is now 12 midday.

‘As the nurse, you should carry out your assessment on Andrew now’
Instructor Prompt Card (2)

Part A - Initial assessment, recording observations and calculating PEWS score

- Candidate/ candidate group should complete ABCDE assessment
- Complete Paediatric Observation Chart
- Calculate Total PEWS score
- Refer appropriately using ISBAR to frame the conversation

If the candidate(s) need prompting:

1. What other signs would you look for in this patient?

<table>
<thead>
<tr>
<th>Concern</th>
<th>RR</th>
<th>RE</th>
<th>O₂ T</th>
<th>HR</th>
<th>AVPU</th>
<th>SpO₂</th>
<th>CRT</th>
<th>BP</th>
<th>Total PEWS Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>V (1)</td>
<td>32 (1)</td>
<td>N</td>
<td>RA</td>
<td>110 (1)</td>
<td>V (1)</td>
<td>98%</td>
<td>&lt;2</td>
<td>110/59</td>
<td>4</td>
</tr>
</tbody>
</table>

- Vital signs (understand the trends for this patient) colour – pale, temp - afebrile
- Blood Glucose level (provide result if tested)
- Urine output (information here if relevant)

2. Who would you notify and why? How soon would you require this child to be reviewed?

PART B – ISBAR communication
Facilitator should place candidates back to back to simulate phone conversation

PART C
Medical candidate briefing
Updated clinical presentation of the child to be given to the candidate

- Doctor should complete ABCDE assessment
- Refer appropriately using ISBAR to frame the conversation

If the doctor needs prompting:

1. What other signs would you look for in this patient?

   - Vital signs (understand the trends for this patient)
   - RR ___ RE ___ O₂ T ___ SpO₂ ___ % HR ___ CRT ___ BP ___/___ AVPU ___ Temp ___ Urine output (give relevant information)
   - Blood Glucose level (provide information if requested)

Note: PEWS ___
Any additional notes for prompting / discussion here

2. What is your management plan?

PART 4 - summary
- What did the group think went well?
- Are there any suggestions for improvement in their roles?
- Summarise learning for the group