National Early Warning Score and associated Education Programme

CASE STUDY 4
Case Study 4

Facilitator Card

Case 4 (Blood Glucose Level)

The important things to get across in this case are:

- Glucose should be the first measure done if there is any change in mental state or alertness (including confusion/aggression/drowsiness)
- If the patient is conscious they should receive glucose tablets and a drink
- If the patient is unconscious they should receive IV glucose (need large vein to give concentrated glucose)
- IV access is required
- Oxygen should be applied
- Aftercare after the initial bolus of glucose:
  - Monitor blood glucose levels frequently
  - Monitor oral intake
  - Reassess with medical staff the next scheduled dose of insulin
- If the patient proceeds to a seizure the important thing in this case is still glucose and oxygen

Patient has an altered mental state due to low blood glucose level as she has had morning insulin but has not eaten. Chest pain is pleuritic but should be investigated. Needs glucose to be given.

- RR increased and SaO₂ down
- Med chart
  - Insulin given in am
  - On oral and IV antibiotics
  - On Inhaler
- Blood Glucose level chart 5.1 mmol/l at breakfast but this is lower than her normal am reading (watch trends here too)
- ABG’s – Glucose 1.2
- Temp elevated again and higher EWS, may need to reculture
Case 4

Aim: To recognise a deteriorating medical patient

Group objectives:
- Obtain adequate history
- Obtain appropriate vital signs using appropriate equipment
- Refer appropriately
- Communicate effectively
- Consider safety when caring for a confused patient

Equipment:
- Facilitator Card
- Player 1 Card – Patient
- Player 2 Card – Physio
- IV cannula
- Mini-jet of glucose/glucagon injection/Dex 50%
- Medication chart
- Blood test results
- Observation chart
- Fluid balance chart not available
- Blood glucose monitoring chart
- Communication Card

Roles in the scenario
1. Patient
2. Physio
3. Registered Nurse
4. SHO
5. Optional extras
   - Additional nurse
   - Registrar
   - Consultant
   - Relative

Scenario

Shirley Temple
Healthcare Record No: 123459

Shirley is a 38 year old patient who has been admitted to hospital for pneumonia.

Medical History: Type 1 diabetes, asthma CRF on CAPD, Retinopathy and PVD.

She has been in hospital for 3 days with temperatures and a persistent cough that has resulted in pleuritic chest pain.

This morning she received SC insulin but ate very little breakfast due to coughing. After her shower she began to feel light headed and nauseated. The physio has just arrived to do some chest physio however Shirley is mildly confused and doesn’t always answer appropriately.

To start the scenario:
1. Assign roles to each player
2. Set up room with the patient in a chair or bed
3. Give the first player card to the player designated as the patient
4. Give the second player card to the player designated as the physio
5. Allow the scenario to build on itself prompting other players to enter as called for or prompt if necessary
6. Supply players with further information such as medication charts, observations or blood results when asked.

SHO comes to review the patient
### During the Scenario

The physio should seek help from nursing staff. If this does not occur prompt.

If staff do not check Blood Glucose Level and initiate glucose treatment the patient should become drowsier and have a seizure. The patient will be aware of this and you can initiate this by taping them on the shoulder. If they do ask for a Blood Glucose Level it is 1.2 mmol/l.

If the physio needs prompting:
1. What are your first actions and who would you notify?
   - Patient safety
   - Notify RGN

The physio should discuss the case face to face with the RGN.

Communication should be clear expressing concerns and what he/she would like the RGN to do.

**If the RGN needs prompting:**

1. **What observations are required?**
   - Vital signs
   - Blood Glucose Level
2. **Who do you need to notify?**
   - The RGN should contact the SHO
   - ? ERT

Facilitator should place RGN and SHO back to back to simulate phone conversation. In the phone call the RGN should:
   - Describe the patient’s history
   - State when she would like the SHO to do i.e. come and review the patient

### 1. What assessment would you do? (prioritise)
   - Examination
   - Blood Glucose Level

### 2. What is your management plan for this patient?
   - Oxygen
   - IV
   - Glucose IV 50mls of 50% Dextrose
   - IV maintenance
   - Blood glucose level monitoring ½ hourly and repeat glucose as necessary
   - ECG
   - Pain management

### Questions:

1. What are your next actions as a group?
   - Plan ongoing management

2. How often should observations be observed?
   - ½ hourly for 1 hour then hourly for 4 hours.
   - Blood Glucose Level should be monitored with vital signs

### To summarise

Ask the group:
1: What they thought went well?
2: What suggestions would they make to improve their roles?

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### Take Home Messages Case 4

1. Always do a BLOOD GLUCOSE LEVEL if the patient is confused
2. Communication – ISBAR
3. Full assessment & management
Case Study 4

Player 1 Card

Patient

You are a 38 year old patient, Shirley Temple, who has been admitted to hospital with pneumonia. You have a history of Type 1 diabetes, asthma, CRF on CAPD, Retinopathy and PVD. You have been in hospital for 3 days with temperatures and a persistent cough that has resulted in pleuritic chest pain.

This morning you received your SC Insulin but ate very little breakfast due to your coughing. After your shower you begin to feel light headed and nauseated. The physio has just arrived to do some chest physio with you:

- You should complain of chest pain
- You are confused and don’t always answer appropriately. You become agitated and if offered refuse oral medications.

As the physio and or other staff assess you, if they don’t check your blood sugar and administer glucose you will become drowsier and potentially have a seizure. If the facilitator wants you to do this they will tap you on the shoulder.
Case Study 4

Player 2 Card

Physio

You are working on the respiratory ward. You have been asked to see a 38 year old patient, Shirley Temple, who has been admitted to hospital for pneumonia. The patient has a history of Type 1 diabetes, asthma, CRF and on CAPD, Retinopathy and PVD.
## Blood Gas

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<thead>
<tr>
<th>ABG</th>
<th>Normal range</th>
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<tbody>
<tr>
<td>PH</td>
<td>7.42</td>
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<tr>
<td>PO2</td>
<td>14</td>
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<tr>
<td>PCO2</td>
<td>5.3</td>
</tr>
<tr>
<td>HCO3</td>
<td>23</td>
</tr>
<tr>
<td>BE</td>
<td>-3</td>
</tr>
<tr>
<td>SaO2</td>
<td>95</td>
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<tr>
<td>Glucose</td>
<td>1.2</td>
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</tbody>
</table>

Blood Gas is essentially normal except for the Glucose
# Drug Record Chart

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<tr>
<th>Prescription</th>
<th>Date</th>
<th>Time</th>
<th>Dose</th>
<th>Route</th>
<th>Start Date</th>
<th>End Date</th>
<th>Dispenser</th>
<th>Signature</th>
<th>Dispenser Signature</th>
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<tbody>
<tr>
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<td>4 x 5 mg</td>
<td>SC</td>
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<td>3/22/2009</td>
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<td>1/10/09</td>
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<td>1 x 10 mg</td>
<td>Oral</td>
<td>3/6/2009</td>
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<td>Reference</td>
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