Case Study 3

**CASE 3(AF)**

- The important things to get across in this case are:
  - Sick patients must always go back to bed
  - Hypoxia should be treated with oxygen even though they have CAL
  - Always check an unrecordable BP with a manual machine
  - Work out why the BP has fallen (BP = CO x PVR)
    - Her hands are cool therefore it must be a fall in Cardiac output
    - The increased Heart Rate does not allow for adequate cardiac filling and so SV will fall then CO will fall and then BP will fall (BP = CO x TPR).
    - Left atrium will not expel all the required blood, left atrial pressure will build up and patient will develop pulmonary oedema (hence the worsening hypoxia)

- Pt has poor cardiac output due to impaired myocardium from previous ischaemic heart disease and inadequate stroke volume because of rapid ventricular rate.
- Need to slow heart rate, requires a loading dose of digoxin to return to therapeutic levels and frusemide to reduce the end diastolic volume and get the heart back onto the right part of the Starling curve
  - Increasing MEWS
  - BP not recording, try a manual
  - RR increasing & SaO2 decreasing
  - When ECG done shows AF with rapid ventricular response
  - Med chart
    - Digoxin given
    - Frusemide given
    - Inhalers given
  - Bloods
    - Digoxin level low

- Increasing MEWS
- BP not recording, try a manual
- RR increasing & SaO2 decreasing
- When ECG done shows AF with rapid ventricular response
- Med chart
  - Digoxin given
  - Frusemide given
  - Inhalers given
- Bloods
  - Digoxin level low
Facilitator Card

Case 3
Aim: To recognise a deteriorating medical patient

Learning Objectives:
- Obtain adequate history
- Obtain appropriate vital signs using appropriate equipment
- Recognise limitations of electronic equipment
- Refer appropriately
- Communicate effectively
- Appropriate use of oxygen in a COPD patient

Equipment:
- Facilitator Card
- Player 1 Card – Patient
- Player 2 Card - EN
- IV Cannula
- Medication Chart
- Blood Test results
- Observation chart
- Fluid balance chart not available
- Communication Card
- Scribing Code Blue Form (Optional)

Roles in the scenario
1. Patient
2. Enrolled Nurse
3. Registered Nurse
4. Medical Registrar
5. Optional extras:
   a. Additional Nurses
   b. Intern
   c. Consultant
   d. Relative

Scenario
Gladys Jones
UR 123458
A 78-year-old patient, admitted to hospital because of atrial fibrillation. She has a history of recent falls, IHD, COPD and hypertension. After her morning shower she is more SOB than usual and by lunchtime didn't have much of an appetite. The Enrolled Nurse has come to do the 2 pm vital signs.

She has increased respirations and is quite SOB speaking in short (1-2 word) sentences. Her ankles are swollen and heart rate is rapid.

To start the scenario:
1. Assign roles to each player
2. Set up room with the patient in a chair
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 EN
5. When the RN Phones the Intern place the two players (RN & Intern) back to back to simulate communication via the phone.
6. Allow the scenario to build on itself prompting other players to enter as called for or prompt if necessary
7. Supply players with further information such as medication charts, observations or blood results when asked

During the Scenario:
If the EN needs prompting:

1. What are your first actions?

Suggested Responses

- Check accuracy of the pulse oximeter by checking a manual pulse
- Oxygen
- Assistance
- Move patient back to bed
- Manual BP

2. Who would you notify?

- RN
- Intern
- Registrar

The EN should discuss the case face-to-face with the RN
Communication should be clear expressing concerns and what he/she would like the RN to do

If the RN needs prompting:

1. What are your first actions? & Why?
   - Oxygen
   - Vital signs
   - Assist patient back to bed if not already

2. Who would you notify?
   - Intern
   - Registrar

If the RN asks for the Intern he/she is caught up on the surgical ward and won’t be able to come for a long time.

Communication between the RN and Registrar can be face-to-face

The RN needs to be clear about the issues and state what he/she would like the Registrar to do

If the Medical Registrar needs prompting:

1. What further information do you require & what assessment would you do?
   - Full examination
   - History

2. What tests would you order?
   - ABG
   - Electrolytes
   - Digoxin Level
   - CXR

3. What is your management plan for this patient?
   - Oxygen
   - IV Access
   - Bloods
   - Ongoing vital sign orders
   - Notification

To summarise

Ask the group:

1. What they thought went well?

2. What suggestions would they make to improve their roles?

Take Home messages from Case 3

1. MEWS policy - requires a Registrar review
2. The importance of Resp Rate & the physiology
3. Communication
4. Oxygen therapy and COPD patients
**Case Study 3**

**Player 1 Card**

**Patient**

You are a 78-year-old patient, Gladys Jones, admitted to hospital because of atrial fibrillation. You have a history of recent falls, IHD, COPD and hypertension. After your shower you noted that you were more SOB than usual and by lunchtime you didn’t have much of an appetite. The Enrolled Nurse has come to do your 2 pm vital signs.

You have increased respirations and are quite SOB speaking in short (1-2 word) sentences. Your ankles are swollen your heart rate is rapid.

**Case Study 3**

**Player 2 Card**

**Enrolled Nurse**

You are an EN working on a Medical ward attending to the 2 pm ward observations. You are attending to a 78 year-old patient, Gladys Jones who has been admitted for AF. The patient has a history of recent falls, IHD, COPD and hypertension. You proceed to record the patients’ observations.
## Case Study 3

### Blood Results

<table>
<thead>
<tr>
<th>ABG</th>
<th>Normal Range</th>
<th>Other bloods</th>
<th>Normal Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>PH</td>
<td>7.236</td>
<td>7.35-7.45</td>
<td>Digoxin Level 0.5</td>
</tr>
<tr>
<td>PO2</td>
<td>35.3</td>
<td>80-100</td>
<td></td>
</tr>
<tr>
<td>PCO2</td>
<td>60</td>
<td>35-45</td>
<td></td>
</tr>
<tr>
<td>HCO3</td>
<td>30.0</td>
<td>22-26</td>
<td></td>
</tr>
<tr>
<td>BE</td>
<td>+5</td>
<td>-2.4-+2.3</td>
<td></td>
</tr>
<tr>
<td>SaO2</td>
<td>70</td>
<td>95-98%</td>
<td></td>
</tr>
<tr>
<td>Glucose</td>
<td>10.0</td>
<td>3.7-5.2</td>
<td></td>
</tr>
</tbody>
</table>
Respiratory Acidosis with CO2 retention.
ECG
Atrial Fibrillation
With marked RAD and qR in V1 as evidence of RVH; large S waves in the precordial leads may signify associated LVH.
### Additional Observations

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Blood Glucose Level (mmol/L)</th>
<th>Weight (kg)</th>
<th>Bonuses</th>
<th>Other (specify)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Communication for MEWS < 4

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Action/Comments</th>
<th>Print name</th>
<th>Signature</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>