Case Study 3

**CASE 3 (Sedation and Respiratory Failure)**

- 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 Obstructive Sleep Apnoea
  - Always check the accuracy of the pulse oximeter by checking a manual pulse
  - Importance of measuring respiratory rate
  - Understand how hypoxia can drive up respiratory rate:
    - Sedation increases drowsiness
    - Drowsiness increases risk of ineffective respiratory effort
    - Decreased respiratory effort
  - Understand how hypercapnea can drive up respiratory rate:
    - Sedation increases drowsiness
    - Drowsiness increases risk of ineffective respiratory effort
    - Decreased respiratory effort:
  - Management needs to include:
    - Providing oxygen to allow SaO₂ reach 90%
    - Waking the patient, considering reversal sedative agent, to allow bigger breaths (tidal volume)
    - Failure to wake patient may require mechanical assistance to increase tidal volume to open the alveoli such as non invasive or invasive ventilation
### Facilitator Card

**Aim:** To recognise a deteriorating medical patient with a significant psychiatric history

**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 sleep apnoea patient

**Equipment:**
- Facilitator Card
- Player 1 Card – Patient
- Player 2 Card – Psychiatric nurse
- IV Cannula
- Medication Chart
- Blood Test results
- Observation chart
- Fluid balance chart not available
- Communication Card

**Roles in the scenario**
1. Patient
2. Nurse
3. Psychiatric Registrar
4. Optional extras:
   a. Medical Registrar
   b. Consultant
   c. Relative

### Scenario

**Wayne Smith**  
**UR 123458**

A 48-year-old patient presented to the Emergency Department with an agitated psychosis and was admitted to the High Dependency Area. He had a history of schizophrenia and obstructive sleep apnoea. Following presentation to the Emergency Department, he had been medically cleared and was transferred to the HDU of with a regular prescription of quetiapine and prn lorazepam for his extreme agitation. He had refused all observations until mid morning you attempt to do a set of observations.

He is drowsy, cyanosed centrally and peripherally and has increased shallow respirations.

**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 Psychiatric nurse
5. When the RN Phones the Psychiatric Registrar place them (RN & Psychiatric Registrar) 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 Psychiatric nurse needs prompting:

1. What are your first actions and why?
   - Oxygen
   - Vital signs
Assist patient back to bed if not already
   - Check accuracy of the pulse oximeter by checking a manual pulse
   - Code Blue
   - Manual BP

2. Who would you notify?
   - Team Leader
   - Psychiatric Registrar

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

If the Psychiatric 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
   - CXR

3. What is your management plan for this patient?
   - Oxygen
   - Code Blue
   - IV Access
   - Consider iv flumazenil
   - Ongoing vital sign orders
   - Notification of Psychiatric Consultant

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. The importance of Respiratory Rate & Physiology
2. Risks of Over Sedating patients with Obstructive Sleep Apnoea
3. Communication
4. Oxygen therapy and Obstructive Sleep Apnoea patients
Player 1
Consumer

You are Wayne Smith, a 48-year old male consumer currently in the AMHU. You are undergoing treatment for Psychosis with a history of Schizophrenia.

The nurse will find you slumped on one of the lounge chairs. You are too drowsy to respond to the nurse but you are not at the point of collapse.

Player 2
Nurse

You are caring for Wayne Smith, a 48-year old male consumer currently in the AMHU. He is undergoing treatment for Psychosis. He was admitted to AMHU in the last couple of days. He has a history of Schizophrenia and Sleep Apnoea, and a two a pack a day smoker. You find Wayne slumped on one of the lounge chairs. He is too drowsy to respond to you, but has not reached to point of collapse.

Talk to your patient and utilise the vital signs observation chart.
You are going to escalate to the Registrar. Take the opportunity to hand write your communication and then use this to guide your communication.
You are caring for Wayne Smith, a 48-year old male consumer currently in the AMHU. He is undergoing treatment for Psychosis.
He was admitted to AMHU in the last couple of days.
He has a history of Schizophrenia and Sleep Apnoea, and a two a pack a day smoker.
The nurse has contacted you regarding your patient.
Below is an ISBAR guide of the information you are receiving.

After this communication, your involvement includes checking the medication chart and noting the frequency and accumulation of Lorazepam.

You are escalating to your consultant. Use the ISBAR below to help guide your verbal communication.

**ISBAR FROM NURSE (guide only)**
**Identify:**
- Nurse, doctor, patient.

**Situation:**
- Found slumped in the chair.
  - Vital Signs/MEWS

**Background:**
- Schizophrenia and Sleep Apnoea

**Assessment:**
- High Sedation from unknown cause.
  - Risk of Hypoxia.

**Recommendation:**
- Initial interventions to support basic physiology
  - Further investigation of – cause.
Player 4
Consultant
You are caring for Wayne Smith, a 48-year old male consumer currently in the AMHU. He is undergoing treatment for Psychosis. He has a history of Schizophrenia and Sleep Apnoea, and a two a pack a day smoker.

After the Registrar has spoken with you share with the group the two points below:

**What you believe is the cause:**
Benzo toxicity or acquire pneumonia. Compounded by inattention to cumulative amounts of benzo’s and infrequent observations.

**Your advice:**
There is a reasonable need to arrange a transfer to the main tower as we do not have the facilities to initiate or maintain the interventional requirements for this patient.

OUTCOME OF SCENARIO and discussion for the group:
Does everyone know the processes in place to transfer a patient from AMHU?
Points for discussion (who and how):
MET call.
A concurrent MET call.
A deterioration that has not involved a MET response.
Any other possible situations.
Blood Results

<table>
<thead>
<tr>
<th>ABG</th>
<th>Normal Range</th>
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<tr>
<td>pH</td>
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<tr>
<td></td>
<td>7.35-7.45</td>
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<tr>
<td>p O₂</td>
<td>35.3</td>
</tr>
<tr>
<td></td>
<td>80-100</td>
</tr>
<tr>
<td>p CO₂</td>
<td>60</td>
</tr>
<tr>
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<td>35-45</td>
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<td>HCO₃⁻</td>
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<td>95-98%</td>
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<tr>
<td>Glucose</td>
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<td>3.7-5.2</td>
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</tbody>
</table>

Respiratory Acidosis with CO₂ retention.
CASE 3

UR Number: 12-3456
Family name: SMITH
Given names: NAMIE
DOB: 12/12/12
Gender: MALE

Date/Time: 
Frequency required: 
Medical officer name: 
Signature: 

Variation to MEWS in patients with a chronic condition:
Where a patient has a pre-existing condition that may require variance from the normal scoring of MEWS document the revised accepted range for the adjusted vital sign is below. Agreement with the attending Consultant or Registrar is required. Variance must also include a "valid until" date.

Respiratory rate to 
Oxygen Saturation to
Heart Rate to
Sedation score 

Reason for Variance to MEWS Criteria: Consultant/Registrar Signature: 
Print name: 
Date: 
Time: hours
Valid until: 

Variation to MET in patients with a chronic condition:
Where a patient has a pre-existing condition that may require a variance from the normal MET criteria document the revised accepted MET criteria for the adjusted vitals is below. Agreement with the attending Consultant or Registrar is required. Variance must also include a "valid until" date. (EXAMPLE: accept SBP down to 80umo/1 as long as alert, warm, passing urine and heart rate not greater than 100 beats/minute).

Respiratory rate < OR > 
Oxygen Saturation < OR >
Heart Rate < OR >
Blood Pressure SysBP less than 

Reason for Variance to MET Criteria: 
MET Instructions: 
Name (Consultant/Registrar): 
Signature: 
Date: 
Time: hours
Valid until: 

Communication for MEWS > 4
Data: 
Time: 
Action/comments: 
Print name: 
Signature: 

Additional Observations
Date: 
Time: 
Blood Glucose Level (mmol/L): 
Weight (kg): 
Sweats: 
Other: 
Other:

URANALYSIS

Date: 
Time: 
SG: 
pH: 
Urine: 
Blood: 
Nitrite: 
Ketone: 
Bilirubin: 
Urine Protein: 
Glucose: 

General Instructions
- Vital sign value must be recorded in the correct row as identified by its range.
- Observations must be represented graphically.
- For a vital sign in the extreme of a range i.e. IR 2 36, write the number.
- If vital signs fall in coloured area refer to MEWS legend to determine score.
- Add all scores to calculate Total MEWS.
- For MEWS > 4 refer to MEWS Escalation Table.