

Scenario template: Can't intubate CAN'T Ventilate		
<b>Scenario:</b> A4(2) Can't intubate and CAN'T ventilate scenario	<b>Patient:</b> Mickey Rourke Overdose of opiates and alcohol	<b>Simulator:</b> SIMMAN Essentials or similar
<b>Case Summary:</b> Mickey Rourke, 34-year-old with a polypharmacy overdose. There is no history of trauma and he is well known to the department for bipolar mental health issues. He requires intubation to protect his airway and provide adequate ventilation. The RSI it turns into a can't intubate CAN'T ventilate situation		<b>Participant Briefing:</b> <u>Ambulance Handover</u> I – Mickey Rourke, 34 year old man M – Found at home with multiple pills (?which) and alcohol bottles around him with decreased GCS, vomit on floor next to him I – Polypharmacy overdose S – HR 76, BP 100/60, Sats 95%, RR 18, GCS 3 T – IV cannula in situ A – Nil known M – Anti-depressants (unclear which) B – Known bipolar disorder O – Well known to the service, usually manic episodes prevail
<b>Clinical Issues</b>		<b>Human factors / Non technical issues</b>
ABCDE approach to the polypharmacy overdose The 7 Ps of intubation Management of Can't intubate, CAN'T ventilate situation		Situational awareness of Can't intubate, CAN'T ventilate situation – unanticipated Communication with team Recognition and communication of CICO situation
<b>Learning Objectives:</b> <b>To Communicate:</b> With the team – role allocation, plan A/B/C, CICO situation <b>To Conduct:</b> A structured assessment and management of the polypharmacy overdose <b>To Demonstrate:</b> Knowledge and skills associated with the Can't intubate, CAN'T ventilate algorithm <b>To Interpret:</b> Signs and symptoms of polypharmacy overdose with a need for intubation for airway protection and to improve ventilation		
<b>Faculty Actors:</b> <b>Mickey Rourke:</b> unresponsive <b>Faculty Nurse:</b> Experienced ED nurse. Will support the team as needed during the scenario. Subtle prompting may be needed and you should act as a member of the team rather than an instructor.		
<b>Patient Moulage:</b> No specific mannequin moulage is needed. Street clothes, a wig can be used if available		

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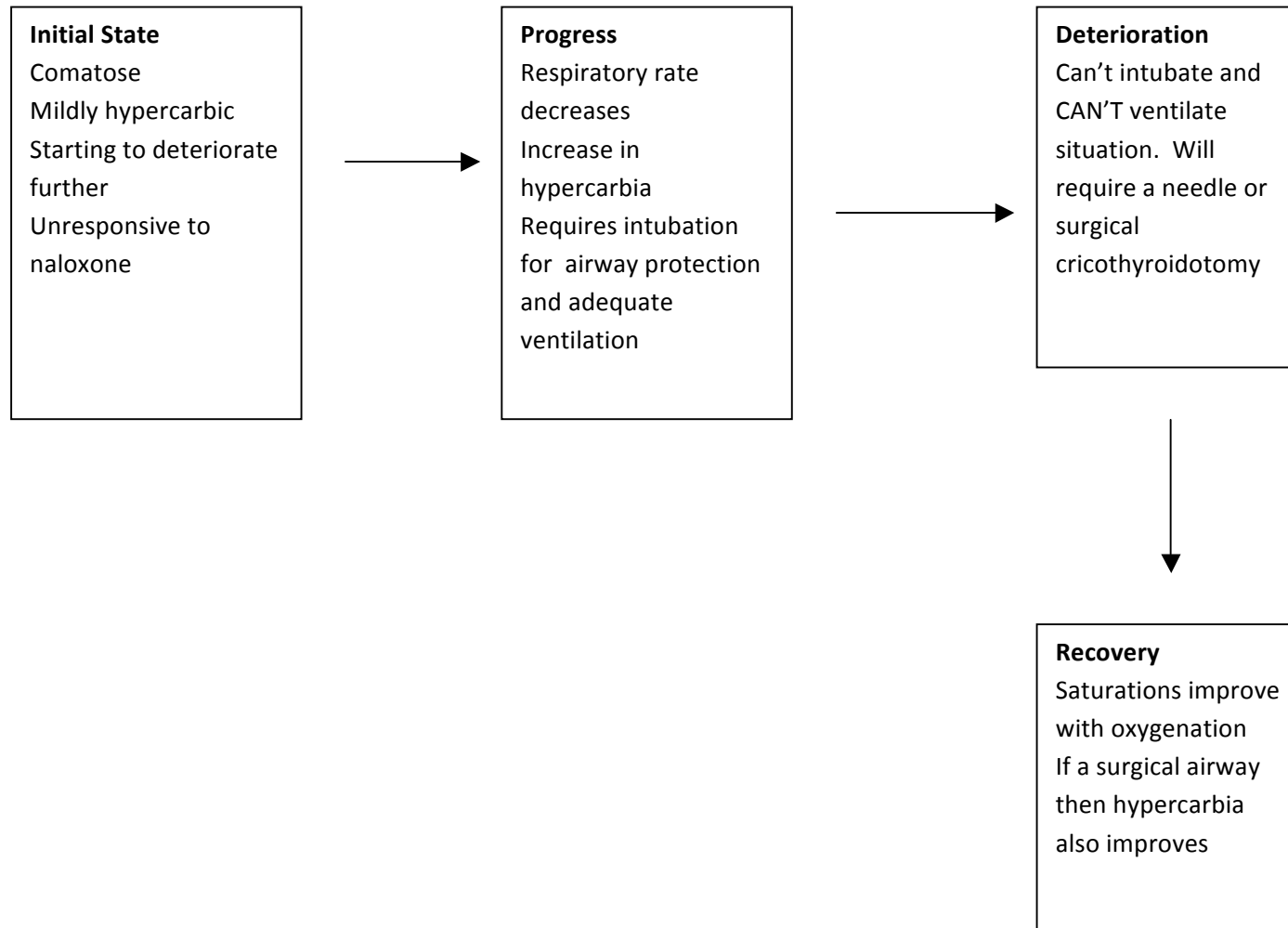
<p><b>Equipment &amp; Props:</b>          EdWISE Airway box and extras          Difficult airway trolley as per host ED to allow team to review this. If not able to bring into teaching area prompt team to review its contents and location in the immediate prior after the session          Host ED's video laryngoscope, if present and available</p>		
<p><b>Monitor:</b> ED setup          ECG          SPO2          CO2 ready          NIBP</p>	<p><b>Investigations:</b>          VBG/ABG results – laminated x2          CXR – normal – laminated x2</p>	
<p><b>Patient presentation</b></p>	<p><b>Expected response by participants</b></p>	<p><b>Faculty /Actors Notes</b></p>
<p><b>Initial Presentation:</b>           Rhythm – Sinus          HR – 76/min          BP – 100/45          RR – 10/min          SPO2 – 98% on non-rebreathing mask          Temp – 36.3 (if asked for)          Conscious level – GCS 3          ETCO<sub>2</sub> – 52 (if attached)</p>	<p>Structured team ABCDE approach to the patient (DEFG)          Recognition of airway risk          Maintain oxygenation          Give fluids to support cardiovascular system          Take blood tests/urine for toxicology screen (including paracetamol +/- salicylates)          Assign team roles          Communicate need for airway support          Call for help</p>	<p><b>Mickey Rourke:</b> GCS 3, eyes closed, unresponsive   <b>Faculty Nurse:</b> Support the team through a structured approach to the unwell ED patient. If a test is ordered then hand the team the appropriate laminated sheet. If they order another test then tell them that it will be ordered. If they ask for equipment then you can either get it for them, show them where it is or say that it is being used or fixed. Please “take” the blood. The cannulas will already be in the mannequin. It would maintain fidelity if you were to take the blood so that the team did not have to pretend to do this.          If a BSL is asked for at anytime please pretend to measure it and then make up a normal value for it.   <b>VBG+/- ABG1</b></p>

<p><b>Progression: The observations change to these values over the first 5 mins of the scenario.</b></p> <p>Rhythm – Sinus          HR – 90/min          BP – 94/45          RR – 6/min          SPO2 – 99% on non-rebreathing mask          Temp – 36.3 (if asked for)          Conscious level – GCS 3          ETCO<sub>2</sub> – 65 (if attached)</p>	<p>Recognise the deterioration in the patient          Communicate this deterioration with the team          Prepare for intubation of the patient – equipment, role allocation, other.          Plan A/B/C          Call for senior help</p>	<p><b>Faculty Nurse:</b> Continue to support the team as needed in the scenario. If the deterioration in the patient is not noticed within 5 minutes of the scenario starting then please use subtle prompting of the team – “His blood pressure has dropped a little”, “ it looks like his respiratory rate has dropped”.</p> <p><b>Over the phone help:</b> All help over the phone is as helpful as possible over the phone. If physical presence is required then you will be there ASAP but it will take you at least 30 min to arrive. If toxicology centre contact provide useful information and prompt to intubate patient</p> <p><b>ABG 2</b></p>
<p><b>Deterioration: On administering the RSI drugs, change the obs to these values over 60 seconds. The mannequin should be in the can’t intubate, CAN’T ventilate setting!</b></p> <p>Rhythm – Sinus          HR – 110/min (dropping to 55/min over 5 minutes)          BP – 110/65          RR – 0/min          SPO2 – 99% until the mask is removed to attempt intubation. After this time decrease the sats. If nasal prongs are used drop the sats over 5 minutes to 55%. If nasal prongs are not used then drop the sats to 55% over 3 minutes.          Temp – 36.3 (if asked for)          ETCO<sub>2</sub> – as unable to ventilate will have no reading, once airway obtained 70</p>	<p>Finish preparing for RSI          Allocate roles and check doses of drugs, etc.          Recognise and communicate a can’t intubate situation          Attempt reposition and Plan B          Recognise a can’t intubate, CAN’T ventilate situation          Progress down plan B then plan C          Communicate with the team about the situation and the change from plan A-B-C          Call for help (ICU/anaesthetics/senior/ENT)</p>	<p><b>Faculty Nurse:</b> Support the team as needed. If the airway team or the team leader becomes fixated with intubation then you may need to prompt the team to switch to another plan – “His saturations are falling!”; “It doesn’t look like you are getting much air in there, his chest isn’t moving”; “Do you want me to try and get you some more help?”; “This isn’t working, we should try something else!”</p> <p><b>Host site faculty:</b> If the team is really struggling or you think that this scenario may be on the border of the team’s experience, then it may be useful to have a senior available to help the team. This can be another ED specialist that can be called directly to help or it can be one of the faculty present in the room.</p>

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<p><b>Recovery: Mickey begins to recover with a successful needle or surgical cricothyroidotomy, with associated oxygenation/ventilation. Once successful placement is achieved the observations change to these values over 2 minutes</b></p> <p>Rhythm – Sinus          HR – 85/min          BP – 130/65          RR – 0/min (whatever rate the team ventilates at)          SPO2 – 95%          Temp – 36.3 (if asked for)          Conscious level – GCS 3          ETCO<sub>2</sub> – 50 (if attached)</p>	<p>Reassess the patient in a team based ABCDE approach          Order a CXR          Repeat an ABG          Communicate success with team          Discuss disposition with ICU/senior          Chase blood results</p>	<p><b>Faculty Nurse:</b> As above  <b>ABG 3 (S if a surgical airway is achieved, N if a needle airway is achieved)</b>  <b>Host site faculty:</b> As above</p>
<p><b>Debrief Guide</b></p>		
<p><b>Key clinical issues: Pick a maximum of 2. * are suggested topics</b></p> <p>Preparation for an ED Rapid Sequence Intubation          Drugs used for intubation          Can't intubate, CAN'T ventilate algorithm *          Choice of needle Vs surgical airway *</p>	<p><b>Key non technical issues: Pick a maximum of 2</b></p> <p>Communication          Role allocation          Sources of help with their hospital          Situational awareness</p>	

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## Venous Blood Gas Result 1

<b>pH</b>	<b>7.32</b>	<b>(7.35-7.45)</b>
<b>pO<sub>2</sub></b>	<b>81</b>	<b>(80-100 mmHg)</b>
<b>pCO<sub>2</sub></b>	<b>50</b>	<b>(35-45 mmHg)</b>
<b>HCO<sub>3</sub></b>	<b>19</b>	<b>(20-24 mmol<sup>-1</sup>)</b>
<b>BE</b>	<b>-3</b>	<b>(-2 to +2)</b>
<b>Lac</b>	<b>1.6</b>	<b>(0-2)</b>
<b>Hb</b>	<b>133</b>	
<b>Na<sup>+</sup></b>	<b>147</b>	
<b>K<sup>+</sup></b>	<b>3.7</b>	

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## Arterial Blood Gas Result 1

<b>pH</b>	<b>7.32</b>	<b>(7.35-7.45)</b>
<b>pO<sub>2</sub></b>	<b>160</b>	<b>(80-100 mmHg)</b>
<b>pCO<sub>2</sub></b>	<b>50</b>	<b>(35-45 mmHg)</b>
<b>HCO<sub>3</sub></b>	<b>19</b>	<b>(20-24 mmol<sup>-1</sup>)</b>
<b>BE</b>	<b>-3</b>	<b>(-2 to +2)</b>
<b>Lac</b>	<b>1.6</b>	<b>(0-2)</b>
<b>Hb</b>	<b>133</b>	
<b>Na<sup>+</sup></b>	<b>147</b>	
<b>K<sup>+</sup></b>	<b>3.7</b>	

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## Arterial Blood Gas Result 2

<b>pH</b>	<b>7.29</b>	<b>(7.35-7.45)</b>
<b>pO<sub>2</sub></b>	<b>175</b>	<b>(80-100 mmHg)</b>
<b>pCO<sub>2</sub></b>	<b>64</b>	<b>(35-45 mmHg)</b>
<b>HCO<sub>3</sub></b>	<b>17</b>	<b>(20-24 mmol<sup>-1</sup>)</b>
<b>BE</b>	<b>-4.3</b>	<b>(-2 to +2)</b>
<b>Lac</b>	<b>1.9</b>	<b>(0-2)</b>
<b>Hb</b>	<b>131</b>	
<b>Na<sup>+</sup></b>	<b>142</b>	
<b>K<sup>+</sup></b>	<b>3.9</b>	

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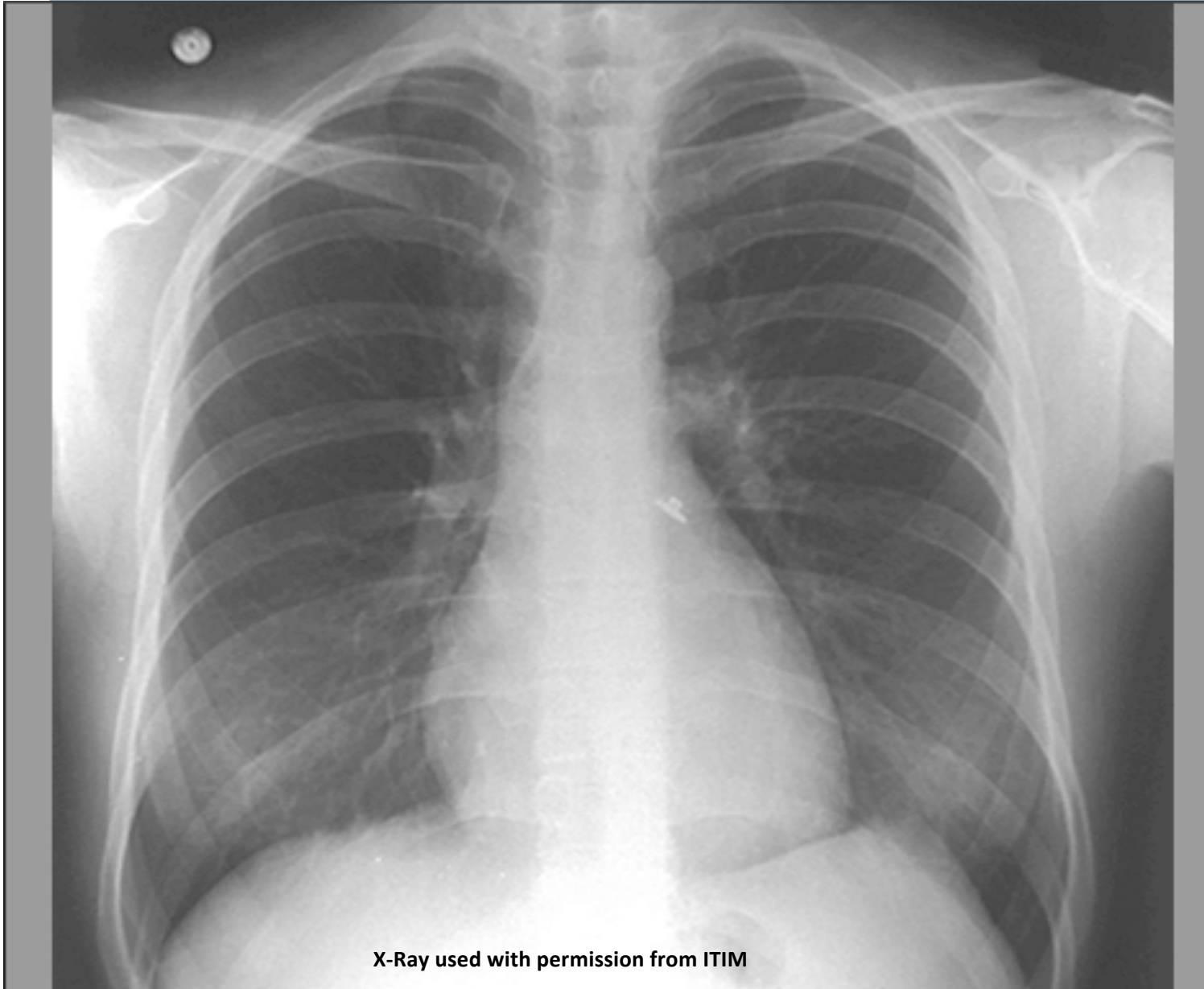
### Arterial Blood Gas Result 3S

<b>pH</b>	<b>7.35</b>	<b>(7.35-7.45)</b>
<b>pO<sub>2</sub></b>	<b>188</b>	<b>(80-100 mmHg)</b>
<b>pCO<sub>2</sub></b>	<b>46</b>	<b>(35-45 mmHg)</b>
<b>HCO<sub>3</sub></b>	<b>20</b>	<b>(20-24 mmol<sup>-1</sup>)</b>
<b>BE</b>	<b>-1.7</b>	<b>(-2 to +2)</b>
<b>Lac</b>	<b>1.2</b>	<b>(0-2)</b>
<b>Hb</b>	<b>137</b>	
<b>Na<sup>+</sup></b>	<b>140</b>	
<b>K<sup>+</sup></b>	<b>3.6</b>	

### Arterial Blood Gas Result 3N

<b>pH</b>	<b>7.30</b>	<b>(7.35-7.45)</b>
<b>pO<sub>2</sub></b>	<b>188</b>	<b>(80-100 mmHg)</b>
<b>pCO<sub>2</sub></b>	<b>66</b>	<b>(35-45 mmHg)</b>
<b>HCO<sub>3</sub></b>	<b>17</b>	<b>(20-24 mmol<sup>-1</sup>)</b>
<b>BE</b>	<b>-4.7</b>	<b>(-2 to +2)</b>
<b>Lac</b>	<b>2.2</b>	<b>(0-2)</b>
<b>Hb</b>	<b>137</b>	
<b>Na<sup>+</sup></b>	<b>140</b>	
<b>K<sup>+</sup></b>	<b>3.6</b>	

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