

OPIOID OVERDOSE (WARD)

MODULE: ACUTE CARE

TARGET: FY1 & FY2 TRAINEES AND FINAL YEAR MEDICAL STUDENTS

BACKGROUND:

Prioritisation is extremely important in the initial assessment and management of patients with acutely altered levels of consciousness and seizures. FY trainees should be able to work within and lead a team to safely assess and treat in a timely manner. Recognition and management of Opioid overdose is extremely important in order to prevent hypoxia and airway risk.

RELEVANT AREAS OF THE FOUNDATION PROGRAMME CURRICULUM

<p style="text-align: center;">1 Professionalism</p>	<p>1.4 Team Working:</p> <ul style="list-style-type: none"> • Demonstrates clear and effective communication within the team <p>1.5 Leadership:</p> <ul style="list-style-type: none"> • FY2 demonstrates extended leadership role by making decisions and dealing with complex situations across a greater range of clinical and non-clinical situations
<p style="text-align: center;">7 Good clinical care</p>	<p>7.5 Safe prescribing</p> <ul style="list-style-type: none"> • Prescribes drugs and treatments appropriately, clearly and unambiguously in accordance with Good Practice in Prescribing Medicines (GMC, 2008) • Uses the BNF plus pharmacy and computer-based prescribing-decision support to access information about drug treatments, including drug interactions • Performs dosage calculations correctly and verifies that the dose is of the right order • Chooses appropriate intravenous fluids as vehicles for intravenous drugs and calculates the correct volume and flow rate • Prescribes oxygen appropriately including to patients with the risk of carbon dioxide retention • Relates prescribing activity to available prescribing guidelines / audit data eg antibiotic usage <p>7.7 Infection control and hygiene</p> <ul style="list-style-type: none"> • Demonstrates correct techniques for hand hygiene with hand gel and with soap and water • Takes appropriate microbiological specimens in a timely fashion • Follows local guidelines / protocols for antibiotic prescribing <p>7.9 Interface with different specialties and with other professionals</p> <ul style="list-style-type: none"> • Understands the importance of effective communication with colleagues in other disciplines

<p>8 Recognition and management of the acutely ill patient</p>	<p>8.1 Promptly assesses the acutely ill, collapsed or unconscious patient</p> <ul style="list-style-type: none"> • Uses Airway, Breathing, Circulation, Disability, Exposure (ABCDE) approach to assessing the acutely unwell or collapsed patients • Uses the GCS or Alert, Voice, Pain, Unresponsive (AVPU) to quantify conscious level • Investigates and analyses abnormal physiological results in the context of the clinical scenario to elicit and treat cause • Uses monitoring (including blood glucose) to inform the clinical assessment • Asks patients and staff appropriate questions to prioritise care • Seeks senior help with the further management of acutely unwell patients both promptly and appropriately • Summarises and communicates findings to colleagues succinctly • Appropriately communicates with relatives/friends and offers support <p>8.2 Responds to acutely abnormal physiology</p> <ul style="list-style-type: none"> • Formulates treatment plan in response to acutely abnormal physiology taking into account other co-morbidities and long-term conditions • Administers and prescribes oxygen, fluids and antimicrobials as appropriate (see Good Clinical Care: Safe Prescribing and Infection Control) • Recognises when arterial blood gas sampling is indicated, identifies abnormal results, interprets results correctly and seeks senior advice • Plans appropriate action to try to prevent deterioration in vital signs • Reassesses ill patients appropriately after starting treatment • Recognises the indicators for intensive care unit review when physiology abnormal <p>8.3 Manages patients with impaired consciousness, including seizures</p> <ul style="list-style-type: none"> • Assesses conscious level (GCS or AVPU) • Treats ongoing seizures • Recognises causes of impaired consciousness and seizures and seeks to correct them • Recognises the potential for airway and respiratory compromise in the unconscious patient (including indications for intubation) • Understands the importance of supportive management in impaired consciousness • Seeks senior help for patients with impaired consciousness in an appropriate and timely way
<p>11 Investigations</p>	<p>11.1 Investigations</p> <ul style="list-style-type: none"> • Requests investigations appropriate for patients' needs in accordance with local and national guidance to optimise the use of resources • Seeks out, records and relays results in a timely manner • Plans/organises appropriate further investigations to aid diagnosis and/or inform the management plan • Provides concise, accurate and relevant information and understands the diagnostic question when requesting investigations • Understands what common tests (Table 1) and procedures entail, the diagnostic limitations and contraindications, in order to ensure correct and relevant referrals/requests • Interprets the results correctly within the context of the particular patient/presentation e.g. plain radiography in a common acute condition • Prioritises importance of investigation results

INFORMATION FOR FACULTY

LEARNING OBJECTIVES:

- ABCDE assessment and initial management of patient with altered conscious level
- Differential Diagnosis and investigation in patients with reduced conscious level
- Appropriate call for help and concise transfer of information
- Management of opioid overdose

SCENE INFORMATION:

- Location: Surgical Ward
- Expected duration of scenario: 15-20 mins
- Expected duration of debriefing: 20-30 mins

EQUIPMENT & CONSUMABLES

- Mannequin: On hospital bed, dry laparotomy dressing
- Drug chart, anaesthetic chart, surgical note, fluid balance, ward obs, blood results
- Insulin pump, PCA pump + chart
- Stocked airway trolley
(Specifically: Airway adjuncts (OPA, NPA))
- O2 and selection of masks incl. NRB
- Monitoring equipment (SpO2, ECG, NIBP)
- Syringes, flushes, IV fluid and giving sets
- Simulated drugs (antibiotics as per local guideline, glucose, naloxone)
- Blood bottles, culture bottles, request forms
- Observation chart, medical note paper, drug chart
- Stocked crash trolley
- Mock-up anaesthetic equipment/drugs

PERSONS REQUIRED

FY Trainee to lead scenario
Ward staff member (Nurse, FY, Medical student)
Medical Registrar (If requested)
ITU Registrar (If requested)

PARTICIPANT BRIEFING: (TO BE READ ALOUD TO PARTICIPANT)

1. Scene-setting: Recognition and initial management of the acutely unwell patient are essential skills to develop during FY training. Today we would like one of you to assess a post-op patient on the surgical ward. Please assess the patient methodically and treat the problems / symptoms that you find.
2. Assistance: An assistant will be present as the scenario begins (faculty will tell you who this is and what experience they have). If other (appropriate) help is needed at any stage, ask for it (the faculty will let you know how to request it).
3. The scenario will run until a natural conclusion, after which we will regroup to discuss the scenario and any related subjects that the group raises. This is not a test of the person who participates in the scenario and they will not be judged in any way on their performance.

'VOICE OF MANIKIN' BRIEFING:

Your name is John (Joanne) Smith. You are 75 years old. You had a right hemicolectomy yesterday. Initially you were well, but now you are very drowsy, your eyes are closed and you moan in response to pain.

IN SCENARIO BRIEFING:

Mr John (Miss Joanne) Smith is a 75 year old patient who underwent a right hemicolectomy yesterday. Everything seemed completely normal yesterday evening and again early this morning, but now the patient has deteriorated: RR4, P on AVPU scale and you would like to doctor to review. You are worried that they have dropped their conscious level and respiratory rate.

Please role play a surgical ward nurse, healthcare assistant or FY1 doctor as directed by the faculty. Please assist the FY doctor as they assess the patient.

If asked, tell the FY doctor the following: patient has a past medical history of high blood pressure, chronic kidney disease and diabetes. The anaesthetic and surgical records, observation chart and drug chart are available - please refer to these for more information.

ADDITIONAL INFORMATION

The main focus of this encounter is the assessment of the patient with a reduced conscious level and recognition of the risk to the airway. The secondary focus is on accumulation of opioids in patients with chronic kidney disease, avoidance of NSAIDs and the use of naloxone to reverse opioid-induced respiratory depression. Trainees should also be made aware that there may be more than one factor contributing to the reduced conscious level and that a full assessment must be conducted.

DRUG CHART

Allergic to Penicillin

PCA morphine (+ PCA chart)

Paracetamol 1g qds IV/PO

Ibuprofen 400mg tds PO

Completed Oramorph 20mg 3hrly prn PO (3 doses given)

Amlodipine 5mg od PO

Metformin 500mg bd PO (omitted perioperatively)

Insulin sliding scale (+ sliding scale chart)

Cyclizine 50mg tds prn IM

Dalteparin 5000units od SC

FLUID BALANCE

3L IV fluid in theatre, 8 hourly bags since

UO 50mls/hr in first 6 hours, now 30mls/hour

Fluid balance chart not fully completed

SURGICAL NOTE

Uneventful Right Hemicolectomy

ANAESTHETIC CHART

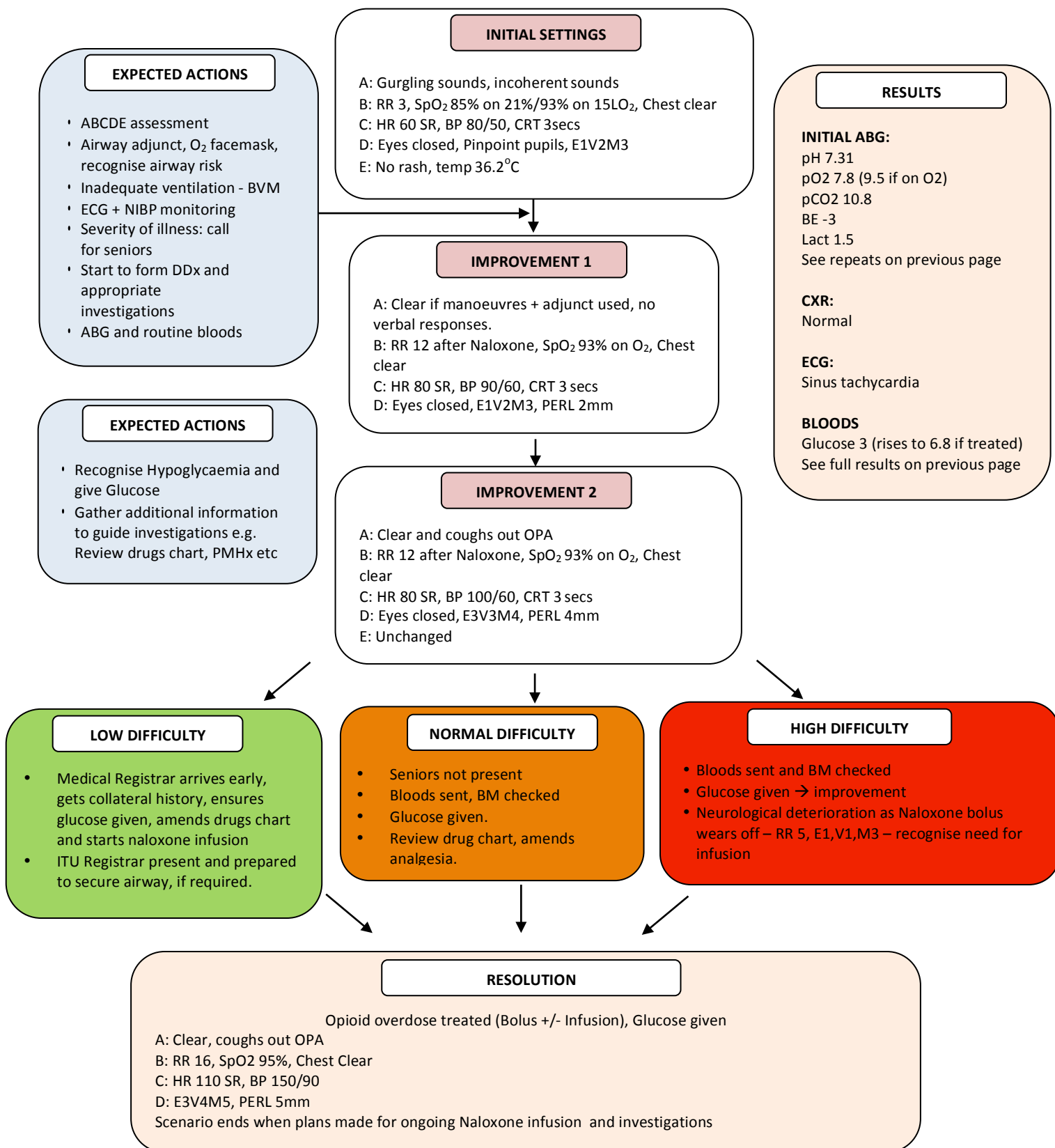
Uneventful, ETT, GA

Ertapenem 1g in theatre

BLOOD GASES				
	Initial	If BVM or	Worse gas if no intervention	At end if recovered
PO ₂	7.8 (21% O ₂) 9.0 (O ₂ mask)	11.5	7.6	12.5
PCO ₂	10.8	7.0	12.6	6.2
pH	7.2	7.28	7.17	7.31
Bic	19	19	17	19
Lactate	1.5	1.5	1.5	1.5
Na	141	141	141	141
K	4.6	4.6	4.6	4.6
Hb	140	140	140	140
Hct	0.38	0.38	0.38	0.38
BE	-4	-4	-5	-3
Glu	3	6.8 if given glucose, otherwise stays 3		

ROUTINE BLOODS		
	Pre-op	Post-op
Na	139	141
K	4.1	4.9
Ur	14	21
Cre	155	260
Hb	131	136
WBC	7.2	8.9
Hct	0.41	0.42
Plt	252	230

CONDUCT OF SCENARIO



DEBRIEFING

POINTS FOR FURTHER DISCUSSION:

- ABCDE assessment and supportive management
- Investigations in cases of reduced conscious level - many differential diagnoses, need for team input
- Appropriate and timely call for senior assistance due to risk to patient
- Management of opiate overdose including possible need for naloxone infusion
- Analgesics in renal impairment
- Feedback to prescribers – how to do it

DEBRIEFING RESOURCES

1. BMJ best practice monograph on management of opioid overdose available at <http://bestpractice.bmj.com/best-practice/monograph/339/treatment/step-by-step.html>
2. BNF: Emergency treatment of poisoning – outlines procedure for bolus dose and infusion

INFORMATION FOR PARTICIPANTS

KEY POINTS:

- Early recognition of need for airway protection +/- ventilation.
- Broad differential diagnosis list – how to investigate efficiently to exclude diagnoses
- Pitfall of focusing only on obvious diagnosis

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<p>6 Good Medical Practice</p>	<p>6.2 Evidence, guidelines, care protocols and research</p> <ul style="list-style-type: none"> • Recognises, understands and follows appropriate guidelines
<p>7 Good clinical care</p>	<p>7.5 Safe prescribing</p> <ul style="list-style-type: none"> • Prescribes drugs and treatments appropriately, clearly and unambiguously in accordance with Good Practice in Prescribing Medicines (GMC, 2008) • Uses the BNF plus pharmacy and computer-based prescribing-decision support to access information about drug treatments, including drug interactions • Performs dosage calculations correctly and verifies that the dose is of the right order • Chooses appropriate intravenous fluids as vehicles for intravenous drugs and calculates the correct volume and flow rate • Prescribes oxygen appropriately including to patients with the risk of carbon dioxide retention • Relates prescribing activity to available prescribing guidelines / audit data eg antibiotic usage <p>7.7 Infection control and hygiene</p> <ul style="list-style-type: none"> • Demonstrates correct techniques for hand hygiene with hand gel and with soap and water • Takes appropriate microbiological specimens in a timely fashion • Follows local guidelines / protocols for antibiotic prescribing <p>7.9 Interface with different specialties and with other professionals</p> <ul style="list-style-type: none"> • Understands the importance of effective communication with colleagues in other disciplines

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PARTICIPANT REFLECTION:

What have you learnt from this experience? (Please try to list 3 things)

How will your practice now change?

What other actions will you now take to meet any identified learning needs?

PARTICIPANT FEEDBACK

Date of training session:.....

Profession and grade:.....

What role(s) did you play in the scenario? (Please tick)

Primary/Initial Participant	<input type="checkbox"/>
Secondary Participant (e.g. 'Call for Help' responder)	<input type="checkbox"/>
Other health care professional (e.g. nurse/ODP)	<input type="checkbox"/>
Other role (please specify):	<input type="checkbox"/>
Observer	<input type="checkbox"/>

	Strongly Agree	Agree	Neither agree nor disagree	Disagree	Strongly Disagree
I found this scenario useful					
I understand more about the scenario subject					
I have more confidence to deal with this scenario					
The material covered was relevant to me					

Please write down one thing you have learned today, and that you will use in your clinical practice.

How could this scenario be improved for future participants?
 (This is especially important if you have ticked anything in the disagree/strongly disagree box)



FACULTY DEBRIEF – TO BE COMPLETED BY FACULTY TEAM

What went particularly well during this scenario?

What did not go well, or as well as planned?

Why didn't it go well?

How could the scenario be improved for future participants?