

BRIDGING THE GAP (FY1→FY2)

MODULE: ACUTE CARE

TARGET: NEW FY2 TRAINEES

BACKGROUND:

In the FY2 year, trainees build on the skills and competencies they acquired during FY1 training. They take on new challenges and roles including delegation, team management, referral and dealing with more complex clinical encounters. This scenario is designed as part of a day of enhanced core training for FY2 trainees to expose them to some of the challenges they will face when dealing with acutely ill surgical patients and engage them in reflection about these new roles and responsibilities.

RELEVANT AREAS OF THE FOUNDATION PROGRAMME CURRICULUM

	1.4 Team Working:
	Demonstrates clear and effective communication within the team
1	Demonstrates clear and effective communication within the team
Professionalism	1.5 Leadership:
110103010114115111	FY2 demonstrates extended leadership role by making decisions and dealing with
	complex situations across a greater range of clinical and non-clinical situations
	7.5 Safe prescribing
	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 drugsand
	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 egantibiotic
7	usage
Good clinical	usage
care	7.7 Infection control and hygiene
	Demonstrates correct techniques for hand hygiene with hand gel and with soap and
	water
	Takes appropriate microbiological specimens in an timely fashion
	Follows local guidelines / protocols for antibiotic prescribing
	Tollows local galacilities y protocols for all allocate presentaling
	7.9 Interface with different specialties and with other professionals
	 Understands the importance of effective communication with colleagues in other
	disciplines

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Health Education Thames Valley 8.1 Promptly assesses the acutely ill, collapsed or unconscious patient 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 8.2 Responds to acutely abnormal physiology 8 Recognition Formulates treatment plan in response to acutely abnormal physiology taking into and account other co-morbidities and long-term conditions management of Administers and prescribes oxygen, fluids and antimicrobials as appropriate (see Good the acutely ill Clinical Care: Safe Prescribing and Infection Control) patient 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 8.3 Manages patients with impaired consciousness, including seizures 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 11.1 Investigations 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 11 question when requesting investigations Understands what common tests (Table 1) and procedures entail, the diagnostic

Investigations

Prioritises importance of investigation results

limitations and contraindications, in order to ensure correct and relevant

Interprets the results correctly within the context of the particular patient/presentation e.g. plain radiography in a common acute condition

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referrals/requests





INFORMATION FOR FACULTY

LEARNING OBJECTIVES:

- Approach to the assessment and immediate management of the acutely unwell patient
- Referral to and role of Outreach
- Referral to ITU

SCENE INFORMATION:

• Location: Surgical Ward

Expected duration of scenario: 15 mins
Expected duration of debriefing: 20-30 mins

EQUIPMENT & CONSUMABLES

PERSONS REQUIRED

 Mannequin: On Ward bed, IV Access, laparotomy dressing and surgical drain (blood in bag), urinary catheter and bag (clear urine), epidural in situ

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 blood products
- Blood bottles and request forms
- Observation chart, medical note paper, drug chart
- Surgical note, anaesthetic note, epidural chart
- Outreach paperwork
- · Stocked crash trolley
- Mock up anaesthetic drugs/Intubation equipment
- Paperwork indicating patient is a Jehovah's Witness

FY2 Trainee to lead scenario +/- FY1 trainee

PARTICIPANT BRIEFING: (TO BE READ ALOUD TO PARTICIPANT)

The ward nurse has just called you to see an acutely unwell general surgical patient they are concerned about. Please review and treat the patient as you would on the ward.

On your handover sheet you note that John Williams is a 57 year old man who underwent a small bowel resection yesterday evening. He has a past medical history of hypertension, COPD and type 2 diabetes mellitus.

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'VOICE OF MANIKIN' BRIEFING:

Your name is John Williams and you are 57 years old. You have high blood pressure and take amlodipine and COPD for which you take inhalers. You had some colon removed in 2007 for cancer and you have been well since (until this abdo pain 3 days ago). You have no known allergies. You are normally independent, active and get out walking the dog every day. You work as a car salesman. You are married to louise

You are anxious because of the attention and you want to know what is wrong. You are very tired and weak.

You know you had some bowel that became blocked and it was removed yesterday. You have an epidural but you are still a bit uncomfortable. You feel a bit weak and a bit light-headed if you try to get out of bed – you were told that was probably because of the epidural and that you should stay in bed today. You had a few sips of water this morning but the surgeons said you should have nothing to eat.

IN SCENARIO BRIEFING:

Ward nurse:

You have just completed a set of observations on Mr Williams who had a small bowel resection yesterday. He is hypotensive and tachycardic with an NEWS score of 4 (see obs chart). The FY1 is at teaching. You called the outreach nurse, who is with another patient. They recommended you call the FY2 to prescribe fluids and review the patient. The outreach nurse will arrive to assess the patient just after the FY2.

All the relevant nursing and medical notes, drug charts, observation and fluid balance charts are in a folder at the end of the bed. These notes will give you all the remaining clinical details.

Please help to organise and deliver treatment as per the FY2's plan, but whenever not being asked to contribute you should say that you are just going to the next cubicle to review your other patients. You will be called back if / when you are needed. Everything you need to deliver the treatment plan will be set out on tables outside the screened area.

At the end of the scenario the patient will be prepared for theatre. Please ensure that the FY2 remembers to let the patient's wife know about events – offer to make the call for them.

ITU Outreach Nurse:

You have been called by the ward nurse because Mr Williams has an NEWS score of 4. You were with another patient, so you recommended they call the FY2 to chart and give some fluids. When you arrive the FY2 is already there assessing the patient. The NEWS score is now 5 (see obs chart and SimMan settings on your arrival). All the relevant nursing and medical notes, drug charts, observation and fluid balance charts are in a folder at the end of the bed. These notes will give you all the remaining clinical details. The fluid balance chart is unclear, so you may need to involve the ward nurse to clarify the fluid status.

The FY2 should consider a fluid bolus—if they don't, then you should suggest it. If necessary, guide them to re-examine the patient after the fluid bolus. Make sure they go through the sepsis screening tool with you (it is not sepsis). Make sure they consider the epidural as a cause—there is no motor block and a sensory block to T8 documented on the epidural chart and the epidural is not the cause of the hypotension. They should think about hypovolaemia as a cause—make sure they consider if the patient is just dry. If they haven't already taken the ABG by the time the other causes have been excluded, tell them they need one. The ABG will reveal a low Hb and metabolic acidosis—if they don't react to this point it out to them, offer to check if the patient was crossmatched for theatre and if blood is available.

The patient will continue to deteriorate in spite of fluids (and blood). The FY2 should call for senior assistance – please make sure they do. The surgical registrar is in theatre so you can recommend they call the ITU registrar.

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ITU Registrar:

You are called by outreach and the FY2 to review Mr. Williams who underwent a small bowel resection yesterday. He is hypotensive and tachycardic and has not responded to fluids. His epidural has been stopped. His Hb is low, he is acidotic and the outreach nurse (+/- FY2) is worried that he may be bleeding. Review the patient, outreach notes, op note, ABG and conclude that bleeding is likely. Explain it is probably too early for sepsis, he has not responded to a fluid bolus, epidural is not a culprit (no dense block + some pain), anaemia + acidosis on ABG (not enough fluid given to drop Hb to 68). Make sure blood is being transfused, that the FY2 arranges further blood through blood bank. Point out that you cannot fix the problem, but you will try to expedite surgical intervention. Phone your consultant to discuss the need to go to theatre, but that the surgeons are scrubbed so you have not been available to discuss the case with them.

Blood Bank:

Release red cells if requested, but ask for repeat clotting and fibrinogen samples before releasing FFP / cryo unless it is a massive transfusion protocol. Recommend discussion with a consultant haematologist if they insist on FFP/cryo without the protocol. Ask for someone to come to blood bank to collect the blood – the ward nurse will get it.

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CONDUCT OF SCENARIO

EXPECTED ACTIONS

- Recognise acutely unwell
- · ABCDE Assessment
- · Gives IV fluid bolus
- O2 visa facemask

(+/- ABG and bloods)

INITIAL SETTINGS

- A: Clear
- B: RR20, SpO₂ 92% on nasal spec O2, chest clear
- C: HR 110 ST, BP 105/65, CRT 3 sec, UO <60mls last 2 hours
- D: Alert, anxious, PERL 3mm, BM 5.6, Bupivicaine Epidural running (6ml/hr) block to T8 can move legs, some pain.
- E: Dry wound dressing, 60mls in surgical drain, Temp 36.5

INITIAL ABG

pH 7.22

pO2 10.6 (on 15L), 9.0 (on 4L)

pCO2 4.9

BE -11

Lact 4.5

Hb 68mg/dl

NO INTERVENTION

- A: Clear, speaking
- B: RR 22, SpO₂90%, Chest clear
- C: HR 118 ST, BP 95/60, CRT 4 sec
- D: More anxious, feels more tired.
- E: No change

O2 ONLY

- A: Clear, speaking
- B: RR 22, SpO₂ 95%, Chest clear
- C: HR 118 ST, BP 95/60, CRT 4 sec
- D: More anxious, feels more tired.
- E: No change

IV FLUID ONLY

- A: Clear, speaking
- B: RR 22, SpO₂ 90%, Chest clear
- C: HR 118 ST, BP 110/68, CRT 4 sec
- D: More anxious, feels more tired.
- E: No change

IV FLUID & O2

- A: Clear, speaking
- B: RR 22, SpO₂95%, Chest clear
- C: HR 118 ST, BP 110/68, CRT 4 sec
- D: More anxious, feels more tired.
- E: No change

EXPECTED ACTIONS

Consider DDx for CVS problems:

- ? Sepsis
- ? Epidural? Dehydration
- ? Bleeding

DETERIORATION

- A: Clear, tired, mumbling
- B: RR 28, SpO₂ 90% on 15LO₂, Chest clear
- C: HR 125 ST, BP 80/55, CRT 5 sec
- D: Eyes half open, drowsy
- E: Abdomen more distended

EXPECTED INVESTIGATIONS

- ABG
- Bloods
- ECG
- Review ABG: Low Hb

Met Acidosis

EXPECTED ACTIONS & CONSEQUENCES

- · Search for cause of acidosis and anaemia
- · Should consider intra-abdominal bleeding
- Call for blood (+/- Massive transfusion protocol): 2 units available in fridge

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· Should recognise need for senior support – Surgical Registrar vs. ITU

GIVES BLOOD

- A: Clear, Tired, mumblind
- B: RR 28, SpO₂ 90%, Chest clear
- C: HR 120 ST, BP 80/50, CRT 4 sec
- D: Drowsy.

NO BLOOD

A: Clear, Tired, mumblind

B: RR 28, SpO₂ 90%, Chest clear C: HR 130 ST, BP 75/40, CRT 5 sec

D: Drowsy.

RESOLUTION

ITU Reg expedites to theatre.

Parameters unchanged if continued transfusion.

If stop transfusion then deteriorates to "no blood" settings

RESOLUTION

ITU Reg insists on blood.

Deterioration until blood given.

Then parameters improve to gives blood settings

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DEBRIEFING

POINTS FOR FURTHER DISCUSSION:

 Problem-solving approach to hypotension in surgical patient ABCDE approach
 Time frame for different problems
 Clinical clues + laboratory findings

2. Outreach and ITU referral When to call What they can offer

3. Recognition of need to involve seniors and develop definitive management plan

DEBRIEFING RESOURCES

Copies of relevant observation charts and ABGs NEWs paperwork

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INFORMATION FOR PARTICIPANTS

KEY POINTS:

- ABCDE approach to the acutely unwell patient
- Start important treatments immediately even when diagnosis is not yet clear
- Timely liaison with blood bank
- When to involve your seniors, Outreach and ITU
- Limits of ITU capability if there is no definitive management plan

RELEVANT AREAS OF THE FOUNDATION PROGRAMME CURRICULUM

	1.4 Team Working:
	Demonstrates clear and effective communication within the team
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Professionalism	1.5 Leadership:
	 FY2 demonstrates extended leadership role by making decisions and dealing with complex situations across a greater range of clinical and non-clinical situations
	7.5 Safe prescribing
	 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 rightorder Chooses appropriate intravenous fluids as vehicles for intravenous drugsand calculates the correct volume and flow rate
	 Prescribes oxygen appropriately including to patients with the risk of carbon dioxide retention
7	 Relates prescribing activity to available prescribing guidelines / audit data egantibiotic usage
Good clinical	usage
care	7.7 Infection control and hygiene
	 Demonstrates correct techniques for hand hygiene with hand gel and with soap and water
	Takes appropriate microbiological specimens in an timely fashion
	Follows local guidelines / protocols for antibiotic prescribing
	7.9 Interface with different specialties and with other professionals
	 Understands the importance of effective communication with colleagues in other disciplines

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- 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 theclinical 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

8 Recognition and management of the acutely ill

patient

8.2 Responds to acutely abnormal physiology

- 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

8.3 Manages patients with impaired consciousness, including seizures

- 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

11.1 Investigations

- 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

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· Prioritises importance of investigation results

DEBRIEFING RESOURCES

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Investigations

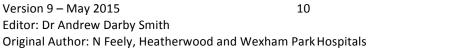
Copies of relevant observation charts and ABGs NEWS paperwork

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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				
Secondary Participant (e.g. 'Call for Help' responder)				
Other health care professional (e.g. nurse/ODP)				
Other role (please specify):				
Observer				

	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)

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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?

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