

LEAKING AAA (JEHOVAH'S WITNESS)

MODULE: ACUTE CARE

TARGET: FY1 & FY2 TRAINEES AND FINAL YEAR MEDICAL STUDENTS

BACKGROUND:

There are more than 150,000 Jehovah's Witnesses in the UK. Central to their faith is prohibition of allogenic blood transfusion. Jehovah's Witness patients suffering massive haemorrhage therefore present a significant clinical challenge. Each hospital should have a protocol with clear processes for teams to follow when dealing with major haemorrhage in this patient group. Foundation trainees should understand their local policies and be able to work within a team to treat this patient group in accordance with their religious beliefs.

RELEVANT AREAS OF THE FOUNDATION PROGRAMME CURRICULUM

	1.4 Team Working:						
	Demonstrates clear and effective communication within the team						
1 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						
7 Good clinical	 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 egantibiotic 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 						

Version 9 – May 2015 Editor: Dr Andrew Darby Smith



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 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

2

Prioritises importance of investigation results

Version 9 – May 2015 Editor: Dr Andrew Darby Smith





INFORMATION FOR FACULTY

LEARNING OBJECTIVES:

- ABCDE assessment and initial management of deteriorating patient
- · Early recognition of hypovolaemia with ongoing blood loss
- Appropriate call for help and concise transfer of information
- Awareness of local procedures for management of bleeding in Jehovah's Witness patients and ability to tailor care to patient's religious beliefs

SCENE INFORMATION:

Location: Emergency Department

Expected duration of scenario: 15 mins (a), 10 mins (b) Expected duration of debriefing: 20-30 mins (a), 15-20mins (b)

EQUIPMENT & CONSUMABLES

Mannequin: On ED Trolley, IV Access

Stocked airway trolley

(Specifically: Airway adjuncts (OPA, NPA))

- · O2 and selection of masks incl. NRB
- Monitoring equipment (SpO2, ECG, NIBP)
- ECG showing Anterolateral ST Depression
- Syringes, flushes, IV fluid and giving sets
- Simulated blood products
- Blood bottles and request forms
- Observation chart, medical note paper, drug chart
- Stocked crash trolley
- Mock up anaesthetic drugs/Intubation equipment
- Paperwork indicating patient is a Jehovah's Witness

PERSONS REQUIRED

FY Trainee to lead scenario Ward nurse as assistant Medical Registrar (If requested) ITU Registrar (If requested)

PARTICIPANT BRIEFING: (TO BE READ ALOUD TO PARTICIPANT)

- 1. Scene-setting: Working within a multidisciplinary team to manage an acutely unwell patient is an essential skill to develop during FY training. Today we would like one of you to assess a patient on the medical 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.
- 4. We may then move back to the manikin again for the next steps in the management of the patient, followed by a further discussion of any matters that arise.

3

Version 9 – May 2015 Editor: Dr Andrew Darby Smith





'VOICE OF MANIKIN' BRIEFING:

Your name is Simon (Sophie) West. You are a 60 year old schoolteacher. You have a history of high blood pressure, COPD, 5.8cm AAA identified on CT and under regular review. Smoke 10 / day. Only give this information if asked for it.

Medications: Amlodipine 5mg Combivent + Pulmicort inhalers NKDA

You have had central abdominal pain for the past 3 hours. Your back has been getting more painful for the past hour and your chest feels tight, so you called for an ambulance. You took paracetamol but it hasn't helped. Now you are feeling unsteady if you try to walk and light-headed if you stand up. If prompted by the faculty, you will deteriorate and may arrest.

You are a Jehovah's Witness and will not accept blood or blood products. You have a card in your coat pocket confirming your wishes. Only disclose this information if the participant says they are going to give you blood.

IN SCENARIO BRIEFING:

ED nurse:

You are looking after Simon (Sophie) West, a 60 year old patient with high blood pressure and COPD who has presented with severe abdominal and back pain. You ask the FY doctor to assess them on the ward because the pain is getting worse. You should start an observation chart at the beginning of the scenario.

Senior doctors:

If called to join the scenario, allow the FY doctor to give you a handover. If they haven't considered a leaking AAA raise the possibility, make sure bloods get sent, discuss with the surgical consultant and request a FAST scan. Also discuss transfusion and try to persuade the patient to accept it.

ADDITIONAL INFORMATION:

The main focus of this scenario is recognition of ongoing bleeding in a Jehovah's Witness. The patient will deteriorate through the 4 stages of shock

If the participant doesn't recognise this and commence appropriate treatment, then the patient should deteriorate, however, this may make the scenario too complex for some participants to manage. Instead, the registrar may arrive to continue care, or the faculty could choose to pause for a discussion and then continue with another participant managing the further deterioration.

4

Version 9 – May 2015 Editor: Dr Andrew Darby Smith





CONDUCT OF SCENARIO

EXPECTED ACTIONS

- Recognise acutely unwell
- · ABCDE Assessment
- · O2 facemask
- ECG + NIBP monitoring.
 Consider DDx
 - incl LVF? ACS? Bleed?
- · Ix: ABG, Bloods, ECG, CXR
- Review medical notes and drug chart

EXPECTED ACTIONS

- No improvement if LVF or ACS treatment given
- Consider (and treat) hypovolaemia
- Contact seniors
- Consider transfusion, if patient still interacting they will refuse. Manage refusal appropriately.

INITIAL SETTINGS

- A: Clear
- B: RR25, SpO₂ 85% on 21%/94% on 15L O2, chest clear
- C: HR 125 ST + ischaemia on ECG, BP 115/70, CRT 4sec, cool peripheries
- D: E3V4M6, PERL 3mm, BM 5.9, Distressed.
- E: No rash, temp 36.9°C, sweaty

DETERIORATION

- A: Clear
- B: RR 35, SpO₂ 92% 15LO₂, Chest clear
- C: HR 148 ST, BP 110/70, CRT 4 sec
- D: Eyes open, obeys commands, PERL 3mm
- E: Worsening back pain

FURTHER DETERIORATION

- A: Clear, speaking in single words
- B: RR 40, SpO₂ 88% on 15LO₂, Chest clear
- C: HR 160 ST, BP 80/50, CRT 5 sec, chest pain
- D: Eyes half open, drowsy
- E: Unchanged, tender distended abdomen

RESULTS

INTIAL ABG (on room air):

pH 7.32

pO2 8.0 (PaO2 7.3 if on room air)

pCO2 5.8

BE -4

Lact 1.9

Hb 12

CXR:

Normal

ECG

Anterolateral ST Depression

ABG (after further deterioration)

pH 7.30

pO2 7.3

pCO2 6.2

BE -6

Lact 2.3

Hb 7

BLOODS:

Normal

EXPECTED ACTIONS

- · Recognise potential blood loss and plan transfusion if not already refused
- Recognise history consistent with AAA leak.

LOW DIFFICULTY

- Medical Registrar arrives early,
- Consider blood if not discussed with patient already.
- Patient stabilises
- Plans for investigation/vascular

NORMAL DIFFICULTY

- Seniors not present initially.
- Reassess, consider transfusion if not refused.

5

- Nurses find paperwork confirming religious beliefs: Review options
- Seniors arrive.

HIGH DIFFICULTY

- Deterioration patient goes into cardiac arrest (Pulseless VT)
- 3 cycles of CPR → ROSC if rapid fluids and vasopressors:
- A: Clear
- B: RR 0, SpO2 93%
- C: HR 100 ST, BP 80/40, CRT 5secs
- D: Unresponsive
- ITU team and surgeons arrive and co-ordinates ongoing care

RESOLUTION

Appropriate treatment prescribed, investigations ordered, contemporaneous notes, decisions re: ongoing care

Version 9 – May 2015

Editor: Dr Andrew Darby Smith





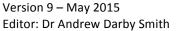
DEBRIEFING

POINTS FOR FURTHER DISCUSSION:

- Differential diagnosis of worsening abdominal + back pain what points to AAA
- The recognition and immediate treatment of hypovolaemic shock
- Management of bleeding in Jehovah's Witness
- Recognition of severity of illness and appropriate call for senior assistance

DEBRIEFING RESOURCES

Local policy for management of bleeding in Jehovah's Witness







INFORMATION FOR PARTICIPANTS

KEY POINTS:

- Differential diagnosis of worsening abdominal + back pain what points to AAA
- The recognition and immediate treatment of hypovolaemic shock
- Management of bleeding in Jehovah's Witness
- Recognition of severity of illness and appropriate call for senior assistance

RELEVANT AREAS OF THE FOUNDATION PROGRAMME CURRICULUM

	1.4 Team Working:					
	Demonstrates clear and effective communication within the team					
1						
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 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 					
7	• Relates prescribing activity to available prescribing guidelines / audit data egantibiot					
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 					

7

Version 9 – May 2015 Editor: Dr Andrew Darby Smith





- 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 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

8

Prioritises importance of investigation results

DEBRIEFING RESOURCES

11

Investigations

Local policy for management of bleeding in Jehovah's Witness

Version 9 – May 2015

Original Author: N Feely, Heatherwood and Wexham Park Hospitals

Editor: Dr Andrew Darby Smith





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?

Version 9 – May 2015 Editor: Dr Andrew Darby Smith

Original Author: N Feely, Heatherwood and Wexham Park Hospitals

9





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' respon	nder)			
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)

10

Version 9 – May 2015 Editor: Dr Andrew Darby Smith





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?

11

Version 9 – May 2015 Editor: Dr Andrew Darby Smith

