First2Act – Examples of materials for face to face patient deterioration management training

The following materials may be useful to you if you are planning to train healthcare staff in patient deterioration management. Included are:

- A pre course demographic form
- Pre course knowledge test (multiple choice format)
- Pre course confidence rating
- Cardiac, shock and respiratory scenarios and ratings
- Debriefing – key points
- Post course knowledge test (multiple choice format)
- Post course confidence rating and course evaluation

Also
- Situation awareness ratings (SAGAT)
- Teamwork assessment rating (TEAM)

For further information please contact Professor Simon Cooper at s.cooper@federation.edu.au

Disclaimer

These materials including the associated course manual are intended for use only as part of the FIRST2ACT program which is available in face-to-face and web based versions. The authors take no responsibility for any adverse event arising from use of these course materials. While the actions described are considered by the authors to represent best practice, users of these resources are advised to check relevant protocols in each clinical setting, as these may vary.

Demographics Form

1. What is your gender? (required)

○ Male

○ Female

2. What is your age, in years? (required)

3. Do you speak a language other than English at home? (required)

○ No, English only

○ Yes, please specify in Q4 below:

4. If you speak another language please enter this here:

5. Where did you hear about this training program? (required)

☐ Through my study

☐ At work

☐ Through the internet

☐ Word of mouth

☐ At a conference

6. In which country do you live?

Experience

7. Are you currently working in a healthcare related field (e.g. paramedic, care assistant, physiotherapist, nurse, doctor) (required)

○ Yes

○ No; Continue to question 14.

PLEASE TURN OVERLEAF

8. What is your professional specialism? (please tick all that apply)

☐ Medicine

☐ Nursing

☐ Dentistry

☐ Physiotherapy

☐ Para-medicine

☐ If other please specify in Q15

9. Please describe any other specialisations that are not listed above:

10. What is your completed qualification level? (tick all that apply)

☐ Certificate

☐ Diploma

☐ Bachelors Degree

☐ Masters Degree

☐ If other please specify below

11. Please describe your course level of qualification, if not listed above:

12. How many years have you worked in a healthcare related field?

13. What area of practice have you spent most time e.g. elderly care, community, general practice, emergency?

Study

14. Are you currently a full or part time student? (required)

○ Yes

○ No; If no you have completed this questionnaire – thank you

15. What is the name of your course?

PLEASE TURN OVERLEAF

16. What is the course level? (please tick one)

○ **Certificate**

○ **Diploma**

○ **Bachelors Degree**

○ **Masters Degree**

○ **If other please specify below**

17. Please describe your course level of study, if not listed above:

18. What is the name of the institution you are studying at?

19. Are you enrolled as an international or domestic student? (please tick one)

○ **International**

○ **Domestic**

20. What year of your course are you currently studying? (please tick one)

○ **Year 1**

○ **Year 2**

○ **Year 3**

○ **Year 4**

○ **Year 5+**

END OF QUESTIONNAIRE

Medical Knowledge – Multiple Choice Questions (Pre) <mark>(Correct answers highlighted)</mark>

Please answer *ALL* the questions below.

1. In patients with a coronary syndrome, who are not seriously ill, oxygen should only be delivered where the oxygen saturation is:

a) less than 98%
b) less than 95%
c) greater than 95%
<mark>d) 93% or less</mark>

Feedback: Contemporary guidelines indicate that patients with a coronary syndrome should not be given supplementary oxygen unless the saturation is 93% or less. However if they are seriously ill supplementary oxygen may be applicable.

2. When undertaking a patient handover the pneumonic 'ISBAR' stands for:

<mark>a) Identify, Situation, Background, Assessment, Recommendation</mark>
b) Identify, Saturation, Background, Assessment, Reaction
c) Initiate, Situation, Background, Action, Recommendation
d) Implicate, Search, Backwards, Alternatives, Recommendation

Feedback: ISBAR is a pneumonic which should guide effective handovers. **I**dentify yourself and your patient. **S**ituation – describe the problem and why you need help. **B**ackground to the patient's admission and relevant medical history. **A**ssessment – list the vital signs and findings from the ABCDE assessment. **R**ecommendation – what you will do next and what you want your colleague to do.

3. Capillary refill time should be:

a) less than 5 seconds
b) greater than 4 seconds
<mark>c) less than 2 seconds</mark>
d) greater than 2 seconds

Feedback: Capillary refill time (CRT) is the time it takes for colour to return to a capillary bed (e.g. a finger nail) after pressure has been applied for 5 seconds to cause blanching. A normal CRT is less than 2 seconds.

4. The pulse can be palpated…

a) every time the atria contracts

b) when a vein is close to the surface of the skin

c) every time the left ventricle contracts

d) when an artery is close to the surface of the skin

Feedback: A pulse can be palpated when an artery is close to the surface of the skin

5. A normal heart rate for an adult at rest is:

a) 60-80 beats per minute (bpm)

b) 60-100 bpm

c) 60-90 bpm

d) 60-110 bpm

Feedback: A normal heart rate for an adult at rest is 60-100 beats per minute.

6 Pulse oximeters may be unreliable when

1. Tissue perfusion is poor
2. The patient is wearing nail varnish
3. Haemoglobin is 100% saturated
4. Measured on the ear lobe
5. The patient has a cold
6. Haemoglobin levels are low
7. Digits are cold
8. The patient is elderly

a) 1,2 and 7

b) 2, 3 and 6

c) 1, 4 and 8

d) 2, 5 and 7

Feedback: Pulse oximeters can be unreliable when tissue perfusion is poor, the patient is wearing nail varnish and the digits are cold.

7. When assessing if a patient is breathing or not, which of the following is correct?

1. Assess for 60 seconds
2. Look for chest movements
3. Use a mirror to check for exhaled air
4. Listen for breath sounds
5. Feel for exhaled air on your cheek
6. Always remove dentures

a) 1, 2 and 4
b) 2, 3 and 5
c) 2, 4 and 5
d) 1, 4 and 6

Feedback: When assessing if a patient is breathing or not you should look for chest movement, listen for breath sounds and feel for exhaled breath.

8. Which of the following is *NEVER* compatible with cardiac output:

a) Supraventricular tachycardia
b) Ventricular tachycardia
c) Atrial fibrillation
d) Ventricular fibrillation

Feedback: Ventricular fibrillation is never compatible with cardiac output and requires defibrillation and full cardiopulmonary resuscitation.

9. A.V.P.U. stands for?
a) Alert, Voice, Pain, Unconscious
b) Altered, Verbal, Pain, Unresponsive
c) Anxious, Violent, Paranoid, Unsettled
d) Alert, Voice, Pain and Unresponsive

Feedback: A.V.P.U is a primary assessment for level of consciousness. You should assess to see whether or not your patient is **A**lert, responds to **V**oice or **P**ain, or is **U**nresponsive.

10. When using a non-rebreather mask:

a) 40% oxygen is delivered to the patient
b) 100% oxygen is delivered to the patient
c) The reservoir bag should not be inflated prior to placing on the patient's face
d) Oxygen flow rates of approximately 15 litres a minute are required in adults

Feedback: In order for a non-rebreather mask to function correctly the oxygen flow rate needs to be set at 15 litres a minute'

11. What are the six essential actions in the initial management of the deteriorating patient:

a) 1. collecting additional information, 2. positioning the patient appropriately, 3. considering oxygen therapy, 4. preparing equipment for a medical emergency team, 5. Getting help, 6. handover using ISBAR.

b) 1. Getting help, 2. Taking the blood pressure, heart rate and oxygen saturation, 3. positioning the patient appropriately, 4. giving oxygen, 5. preparing equipment for a medical emergency team, 6. handover using ISBAR.

c) 1. Recording vital signs, 2. Getting help, 3. Giving oxygen, 4. Positioning the patient appropriately, 5. Preparing equipment for a medical emergency team, 6. handover using ISBAR.

d) 1. Getting help, 2. collecting additional information, 3. positioning the patient appropriately, 4. considering oxygen therapy, 5. preparing equipment for a medical emergency team, 6. handover using ISBAR.

Feedback: It is essential to get help early from colleagues or a medical emergency team, to review patient charts, monitor vital signs and record an ECG as applicable. Patients should be positioned appropriately and oxygen therapy considered. Prepare equipment such as wide bore cannula and IV fluids and be ready to handover to the emergency teams using the ISBAR pneumonic

12. Relating to deteriorating patients which are the following are correct:

1. Patients with chronic hypertension may be hypotensive even where their systolic BP is greater than 100mmHg.

2. In adults a urine output of less than 200mls in eight hours may indicate serious illness.

3. A full set of vital signs includes the heart rate, blood pressure, oxygen saturation, capillary refill time and temperature

4. A patient with hypovolemic shock will have warm clammy skin.

5. A patient with hypoxia is likely to be confused.

a) 1, 4, 5

b) 1, 2, 5

c) 2, 3, 4

d) 1, 2, 3

Feedback: Chronically hypertensive patients may become hypotensive even when their systolic BP is at normal levels. Urine output of less than 200mls in eight hours may indicate serious illness. A full set of vital signs should always include the respiratory rate in addition to BP, oxygen saturations, CRT and temperature. Hypovolaemic patients will have cold clammy skin and hypoxic patient may be confused.

<u>Date</u>   **<u>Candidate Number =</u>

<u>Pre course</u> confidence / competence

Please rate your perceived ability to:

	Poor 1	Fair 2	Good 3	Very Good 4	Excellent 5
Recognise a deteriorating patient	○	○	○	○	○
Manage emergency priorities	○	○	○	○	○
Perform emergency tasks	○	○	○	○	○

Please rate your perceived confidence/competence in the management of a deteriorating patient:

	Poor 1	Fair 2	Good 3	Very Good 4	Excellent 5
Confidence level	○	○	○	○	○
Competence level	○	○	○	○	○

Cardiovascular System Scenario

Training/Research Staff:

- Participants should be asked to arrive dressed as they would for clinical placement. That is, in uniform, hair and jewellery appropriate, note pad, pen, watch, stethoscope, etc.
- Ask participant not to discuss the scenarios with their colleagues until study is complete.
- Ensure demographics form is completed
- Ensure pre-course confidence competence rating
- Ensure MCQ test is completed
- Ensure video is correctly placed over the patient actor
- Room and monitoring set with BP, stethoscope, O^2 Sats, nursing observation chart, medication chart available
- Have an ECG machine available and <u>Inferior acute myocardial infarction ECG</u>
- Brief 'newly qualified doctor' to support appropriately but not to prompt, i.e. they can give drugs and increase infusion rate if requested.
- Run through scenario with participants and ask them to repeat it back.
- Emphasize the need to record observations regularly and verbalise thoughts and actions

Briefing Notes

Nurse participant: You are just starting your shift. There are two other Registered Nurses working on the ward who you can call on for assistance if needed. You also have the support of a junior doctor who will assist and support as required. As your 'patient' is an actor you are required to take observations as per normal but results will be revealed by your doctor. The patient is in a quiet side ward.

The patient: Insert name…………….. is 64 years of age and was admitted a few days ago with cellulitis of his leg for which a course of IV antibiotics has been completed. The IV cannula has been removed and he/she is due for discharge to home this afternoon. He/she has just rung the patient call bell. You respond and enter his room. He/she tells you he has chest pain and points to the centre of his chest. You are the first to respond.

The scenario will be run in 'real time'. There will therefore be gaps in activity, *(this does not mean you are doing anything wrong).* His current observation chart is available for you to document your observation findings. Talk out loud about what you are thinking and doing. You can ask for the patient's status at any point and you can expose him down to his underwear.

Supporting 'Doctor' - role
DO NOT PROMPT at any point. Give information as requested after an applicable action, i.e. only indicate the BP or HR after it has been taken. With the patient actor please rate performance on the following scale during or immediately after each scenario.

Provide the participant with the <u>Inferior acute myocardial infarction ECG</u> after one has been recorded.

Vital signs and other charts
Prepare a full set to illustrate the patients 'normal' observations over the last few days

Patient scenario:
You are (insert name)…………………………… **a 65-year-old retired accountant**.

Moulage – Cyanosis – i.e. pale/sweaty lips (does the actor have the correct make up?)

Presenting condition (If asked)
You were admitted a few days ago for cellulitis of the leg and have been treated successfully with IV antibiotics. About 20 minutes ago you got severe chest pain and you rang the patient buzzer for a nurse.
- **Chest pains and breathlessness**.
- The pain came on gradually and is currently approx **5/10**.
- The onset of **pain was AT REST**. You did not have indigestion.
- The pain was across the front of your chest. It did not radiate anywhere else.
- The pain was accompanied by you feeling generally unwell and breathless. You still feel your breathing is 'a bit tight'.
- You have had this pain in the past. It **does feel similar to your angina pain.**
- Usually you need to use your GTN approx once every month or so and you have not seen your GP about your angina for the last 8-9 months.

You are anxious and agitated but not aggressive. Your wife is out shopping with her sister and you have been unable to contact them so far.

Past medical history
- You are known to have high BP for which you take medication.
- You had a blood test to check your cholesterol last year which was 5.4
- You have had angina for the last three years

Drug history
- **Metoprolol** 50mg twice a day (for your BP and angina – you think)
- **Aspirin 100mg** daily
- **Pravastatin 40mg at night (**for your high cholesterol)
- **GTN spray** prn (for your angina when you need it)

Social history
- You drink 4 glasses of red wine per day.
- You eat 'healthily'.
- You smoked 20 cigarettes per day for 25 years but have recently given up
- You have gained about 6kg in weight over the last six months.
- Married to (insert name)……., also retired, with four adult children.
- You don't exercise specifically but you take your dog for a walk twice a day

Family history
- Your father died aged 48 years of a heart attack which is adding to your concerns.

Actor tips: very fearful – you think you are having a heart attack; pain terrifies you; you are desperate for expert help.

Decline at 4 minutes (halfway point of scenario)
- **Rapid increase in chest pains (9/10) and breathlessness (rapid shallow breaths)**
- The pain is **crushing central chest pain** right across the front of your chest. It did not radiate anywhere else.
- You are anxious, agitated and very frightened.

Date   **Candidate number=**

CVS Chest Pain (Scenario 1)				
Aprox Time (mins)	**Observations**	**Action**	**Correct/ incorrect**	*Points at debrief*
On arrival 1-4		Obtain immediate history	Y/N	PQRST (**P**rovoke/Palliation, **Q**uality, **R**adiates, **S**everity, **T**ime)
	5/10	Pain assessment	Y/N	
		Record/request obs		
	BP 150/95		Y/N	
	HR 110 *(if palpated)*		Y/N	
	RR 20		Y/N	
	CRT – 2 secs		Y/N	
	O^2 Sats 92%		Y/N	
	Temp 36.8		Y/N	
		Investigate current medication usage	Y/N	Prescription, over counter, recreational
		Identify other symptoms	Y/N	Dyspnoea, nausea, diaphoresis, neck vein extension
		Consider non-cardiac causes of chest pain	Y/N	Aortic aneurysm, oesophageal reflux, pneumothorax, musculoskeletal
		Aspirin (sub-lingual)	Y/N	
		Performed a 12 lead ECG	Y/N	

Patient rapidly deteriorates
Rapid increase in chest pains (9/10) and breathlessness (rapid shallow breaths)

4-7.5	9/10	Pain assessment	Y/N	
		Nitrates	Y/N	
	BP 170/95	Record/request Obs.	Y/N	
	HR 140		Y/N	
	RR 32		Y/N	
	CRT – 2 secs		Y/N	
	O^2 Sats 89% *(despite O^2 if on)*		Y/N	Emphasise systematic ABCs. Time critical
		Call for Assistance Nurses	Y/N	
		Doctor	Y/N	
		Met call	Y/N	
		Position appropriately	Y/N	Upright or Semi-recumbent.
		Administer 0^2 (non-rebreath)	Y/N	
		Ensure IV cannulation	Y/N	**MONA** – **M**orphine, **O**xygen, **N**itrates, **A**sprin
		Blood specimens	Y/N	
		Morphine	Y/N	
		Assigns tasks to nurses during scenario	Y/N	Allocates tasks to nurses, ECG, Vital signs.
7.5 - 8 mins?	BP 140/80 HR 120 RR 25 CRT – 2 secs O2 Sats 93%	**Instructor Note**: Unless majority of above have been missed indicate these observations and initial stabilisation.		Stabilisation may be temporary

Shock – Hypovolaemia Scenario

Training/Research Staff:
- Participants should be asked to arrive dressed as they would for clinical placement. That is, in uniform, hair and jewellery appropriate, note pad, pen, watch, stethoscope, etc.
- Ask participant not to discuss the scenarios with their colleagues until study is complete.
- Ensure demographics form is completed
- Ensure pre-course confidence competence rating
- Ensure MCQ test is completed
- Ensure video is correctly placed over the patient actor
- Room and monitoring set with BP, stethoscope, O^2 Sats, nursing observation chart, medication chart available
- Have an ECG machine available with Sinus tachycardia
- Brief 'newly qualified doctor' to support appropriately but not to prompt, i.e. they can give drugs and increase infusion rate if requested.
- Run through scenario with participants and ask them to repeat it back.
- Emphasize the need to record observations regularly and verbalise thoughts and actions

Nurse participant: You are just starting your shift. There are two other Registered Nurses working on the ward who you can call on for assistance if needed. You also have the support of a junior doctor who will assist and support as required. As your 'patient' is an actor you are required to take observations as per normal but results will be revealed by your doctor. The patient is in a quiet side ward.

(Insert name…………………) is a 64 year old otherwise well man who has just been admitted to your ward with abdominal pain. An IV line has been inserted by a junior doctor and he has been prescribed 1000mls of IV normal saline over the next 8 hours. No definitive diagnosis has been made.

The scenario will be run in 'real time'. There will therefore be gaps in activity, *(this does not mean you are doing anything wrong).* An observation chart is available for you to document your observation findings. Talk out loud about what you are thinking and doing. You can ask for the patient's status at any point and you can expose him down to his underwear.

Supporting 'Doctor' - role
DO NOT PROMPT at any point. Give information as requested after an applicable action, i.e. only indicate the BP or HR after it has been taken. With the patient actor please rate performance on the following scale during or immediately after each scenario.

Provide the participant with the <u>sinus tachycardia ECG</u> if one is recorded.

Vital signs and other charts
Prepare a primary set of vital signs to illustrate the first set recorded on admission e.g. BP 130/90; HR 110 ; RR 15; Temp 37.2; AVPU – Alert ; CRT – 2 secs ; O2 Sats 95%

Patient scenario:
You are (Insert name…………………) **a 64-year-old retired Engineer**

Moulage – Cyanosis – i.e. pale/sweaty, blue lips ears and digits

Presenting condition (If asked)
You have had acute abdominal pain in the left lower quadrant since 22.00hrs last night; 5/10 pain score, nil radiation, with rebound tenderness. You have been vomiting and remained nauseated overnight. You have just been admitted to the ward for further investigations. You have an IV cannula insitu with 1000 mL N/saline over 8 hours.

About 20 minutes ago you became sweaty and dizzy, you vomited once then you rang the patient buzzer for a nurse.
- Dizzy light headed, clammy skin and feeling faint.
- The abdominal pain remains at a 5/10

You are anxious and agitated but not aggressive. Your wife/husband has gone down to the cafeteria for a cup of tea and then a walk outside.

Past medical history
- Mild Asthma
- Right knee replacement 2000

Drug history
- Ventolin prn

Social history
- You ride your push bike every weekend with a friend
- Married to insert name ……………, also retired, with three adult children.

Family history
- Your father died aged 48 years of a heart attack

Actor tips
'Drifting away'(last 2 minutes voice response only; prior to this frightened that you will lose your family; don't want to die yet;

Decline at 4 minutes (halfway point of scenario)
- **Rapid increase in abdominal pains (9/10) and breathlessness (rapid shallow breaths) and a rigid abdomen on palpation.**
- **Gradual deterioration until responding to voice only – semi conscious**
- You are anxious, agitated and very frightened.

Shock (Scenario 2)				
Aprox Time (mins)	**Observations**	**Action**	**Correct/ incorrect**	*Points at debrief*
On arrival 1-4	BP 95/70	Record / request obs	Y/N	
	HR 110		Y/N	
	RR 19		Y/N	
	Temp 37.2		Y/N	
	AVPU – Alert		Y/N	
	CRT – 2 secs		Y/N	
	O2 Sats 95%		Y/N	
		Obtain immediate history	Y/N	
	5/10 abdo pain	Pain assessment	Y/N	PQRST pain assessment tool
		Pain relief given	Y/N	
		Oxygen	Y/N	
		Increase infusion rate (1L/30min)	Y/N	

Patient rapidly deteriorates
Rapid increase in abdo pain (9/10) and breathlessness (rapid shallow breaths)

4-7.5	BP 75/35	Record/ request obs	Y/N	Emphasise systematic ABCs. Time critical
	HR 130		Y/N	
	RR 25		Y/N	
	Temp 37.2		Y/N	
	AVPU – Voice		Y/N	
	CRT – 5 secs		Y/N	
	O2 Sats 89% (despite O2 if on)		Y/N	
		Call for assistance Nurses Doctor Met Call	Y/N Y/N Y/N	
		Position appropriately	Y/N	
	9/10	Pain assessment	Y/N	Legs elevated
		Request or increase infusion rate (e.g. at least 500mls/5mins)	Y/N	
		Administer $0^{2\ (non-rebreath)}$	Y/N	
		Ensure IV Cannulation	Y/N	
7.5 -8 mins?	BP 105/75 HR 70 RR 15 Temp 37.2 AVPU - Alert CRT – 2 secs O2 Sats 93% (Despite O2 if on)	**Instructor Note**: Unless majority of above have been missed indicate these observations and initial stabilisation.		

Respiratory scenario

Training/Research Staff:

- Participants should be asked to arrive dressed as they would for clinical placement. That is, in uniform, hair and jewellery appropriate, note pad, pen, watch, stethoscope, etc.
- Ask participant not to discuss the scenarios with their colleagues until study is complete.
- Ensure demographics form is completed
- Ensure pre-course confidence competence rating
- Ensure MCQ test is completed
- Ensure video is correctly placed over the patient actor
- Room and monitoring set with BP, stethoscope, O^2 Sats, nursing observation chart, medication chart available
- Have an ECG machine available and sinus tachy 12 lead ECG
- Brief 'newly qualified doctor' to support appropriately but not to prompt, i.e. they can give drugs and increase infusion rate if requested.
- Run through scenario with participants and ask them to repeat it back.
- Emphasize the need to record observations regularly and verbalise thoughts and actions

Nurse participant: You are just starting your shift. There are two other Registered Nurses working on the ward who you can call on for assistance if needed. You also have the support of a junior doctor who will assist and support as required. As your 'patient' is an actor you are required to take observations as per normal but results will be revealed by your doctor. The patient is in a quiet side ward.

The patient: (Insert name……………) 64 year old who has just arrived on the ward for a breast biopsy/TURP later this afternoon. He/she has rung his buzzer complaining of shortness of breath, you are the first nurse to attend.

The scenario will be run in 'real time'. There will therefore be gaps in activity, *(this does not mean you are doing anything wrong).* An observation chart is available for you to document your observation findings. Talk out loud about what you are thinking and doing. You can ask for the patient's status at any point and you can expose him down to his underwear.

Supporting 'Doctor' - role
DO NOT PROMPT at any point. Give information as requested after an applicable action, i.e. only indicate the BP or HR after it has been taken. With the patient actor please rate performance on the following scale during or immediately after each scenario.

Provide the participant with the sinus tachycardia ECG if one is recorded.

Vital signs and other charts
See equipment list for requirements

Patient scenario

You are (insert name……………) 64 years of age, employed as a store man at a local Bunnings store. You are married with two children; 20 and 22 years. <u>You have a fear of doctors and hospitals and rarely seek treatment.</u>

You are 175 cm tall and a little overweight

Presenting complaint (if asked)
You have been having episodes of frequent urination and burning. You have an enlarged ==prostate/ breast lump== and your GP has referred you for a TURP / ==biopsy of breast lump==). In the last day or so you have developed a productive cough and have been breathless at rest. (*During the scenario short of breath, cough, wheeze, fast breathing, use accessory muscles – lift shoulders up and down*)

History of presenting complaint
- Short of breath for many years but worsening over the last few days but you almost never go to your GP and have not sort treatment for chest condition.
- You have had a cough since a recent cold that will not go away.

If asked:-
- The cough produces thick sticky yellow phlegm and can be described as harsh and chesty.
- Your mum said you were always a "wheezy, snotty child"
- When breathless you feel you can't fill up your lungs with air
- In the past, the symptoms have subsided within 2-3 minutes if you stop what you are doing
- You know its not your heart but you are frightened it may be lung cancer because of your smoking
- **You have not coughed up any blood ***
- **You have no chest pain, no leg pain and no periods of immobility. You have not travelled recently***
- **Your legs have not been swollen***
- **You voice has not been hoarse***
- ** Key negative features*

Past medical history
- Tonsils and adenoids removed as a child
- **If asked**
    - **you do not suffer with hay fever**
    - **You have never had eczema**

Drug history
- No current prescribed medication
- If asked –
    - your wife insists that you take a daily multivitamin
    - you have no known drug allergies
    - you get an itchy rash if you sit on newly mown grass

Social history
- You started smoking 50 years ago (now 20 a day)
- You drink 5 cans of beer most weekends
- You are a little overweight and eat a lot of take-away meals.
- Married to ==Lyn/Jo== with two children. Your family are fit and well
- You don't take regular exercise but feel your job keeps you fit.
- You have not been exposed to occupational pollutants at work

Family history
- Both your parents are alive and well but your father has high blood pressure
- You have one younger sister who is asthmatic and has eczema

Moulage – cyanosis – blue lips

Actor tips: You have very little insight into your condition (poor health literacy); you do not understand any medical terminology;

At 4 minutes - patient rapidly deteriorates: *short of breath, cough, wheeze, fast breathing, use accessory muscles – lift shoulders up and down*

Date **Candidate Number=**

Respiratory (Scenario 3)				
Aprox Time (mins)	**Observations**	**Action**	**Correct/ incorrect**	*Points at debrief*
On arrival 1-4		Obtain immediate history	Y/N	Discuss 'Blue Bloater' (Chronic bronchitis) Dyspnoea, cyanosis, cough, wheeze
		Record/request obs		
	BP 135/95		Y/N	
	HR 100		Y/N	
	RR 28		Y/N	
	CRT – 2 secs		Y/N	
	O^2 Sats 90%		Y/N	
	Temp 38.8		Y/N	
	Bilateral basal Wheeze and course crackles	Investigate current medication usage	Y/N	Prescription, over counter, recreational
		Identify symptoms/negative features	Y/N	Heart failure, blood expectoration, leg pain/oedema, travel.
		Auscultate Chest	Y/N	
		Administer Oxygen	Y/N	Discuss O_2 levels – objective 90%sats etc

Patient rapidly deteriorates *short of breath, cough, wheeze, fast breathing, use accessory muscles – lift shoulders up and down*

4-7.5		Record/request Obs.		Emphasise systematic ABCs. Time critical
	BP 170/110		Y/N	
	HR 150		Y/N	
	RR 35 +accessory ++ wheeze		Y/N	
	CRT – 2 secs		Y/N	
	O^2 Sats 82% *(despite O^2 if on)*		Y/N	Aim for O2 sats of 90%
		Call for assistance Nurses Doctor Met Call	Y/N Y/N Y/N	
		Position appropriately	Y/N	*Orthopnoeic position*
		Request IV cannulation	Y/N	
		Request nebuliser (beta2-agonist, anticholinergics	Y/N	
		Consider anti-biotics	Y/N	
		Consider non-invasive vent.	Y/N	

7.5-8 mins?	BP 140/80 HR 145 RR 32 CRT – 2 secs O2 Sats 89%	**Instructor Note**: Unless majority of above have been missed indicate these observations and initial stabilisation.		Stabilisation may be temporary

Key points for face to face feedback

Final top tips

- Oxygen saturations should be maintained <u>above 95%</u> in most patients. Use an applicable oxygen mask to achieve this.
- Increase the frequency of observations when vital signs deteriorate (e.g. every 15 minutes)
- If vital signs reach clinical review criteria (yellow chart area) or MET (purple area) seek immediate assistance and record actions on the vital signs chart.

For detailed face to face feedback

In cardiac scenario these are:

- PQRST – pain assessment
- Current medication usage
- Key symptoms
- Non cardiac causes of chest pain
- Patient positioning
- MONA

In the hypovolemic scenario these are:
- Importance of ongoing assessment of circulation – Central and peripheral
- Fluid resuscitation - IV access (2 large bore cannula)
- Key symptoms
- Patient positioning

In the respiratory scenario these are:

- Discuss summarise 'blue bloater'
- Current medication usage
- Key symptoms
- Patient positioning
- Drugs required
- O_2 levels – hypoxic drive issues – aim for 90% sats – but GIVE lots lots of o_2 in this emergency

Date   **Candidate number =**

Medical Knowledge – Multiple Choice Questions (Post) Correct answers as in pre course MCQ – delivery this post course MCQ in random order i.e. a different order of questions to pre course

Please answer *ALL* the questions below.

1. Pulse oximeters may be unreliable when

1. Tissue perfusion is poor
2. The patient is wearing nail varnish
3. Haemoglobin is 100% saturated
4. Measured on the ear lobe
5. The patient has a cold
6. Haemoglobin levels are low
7. Digits are cold
8. The patient is elderly

a) 1,2 and 7
b) 2, 3 and 6
c) 1, 4 and 8
d) 2, 5 and 7

2. A.V.P.U. stands for?
 a) Alert, Voice, Pain, Unconscious
 b) Altered, Verbal, Pain, Unresponsive
 c) Anxious, Violent, Paranoid, Unsettled
 d) Alert, Voice, Pain and Unresponsive

3. Capillary refill time should be:

 a) less than 5 seconds
 b) greater than 4 seconds
 c) less than 2 seconds
 d) greater than 2 seconds

4. What are the six essential actions in the initial management of the deteriorating patient:

a) 1. collecting additional information, 2. positioning the patient appropriately, 3. considering oxygen therapy, 4. preparing equipment for a medical emergency team, 5. Getting help, 6. handover using ISBAR.

b) 1. Getting help, 2. Taking the blood pressure, heart rate and oxygen saturation, 3. positioning the patient appropriately, 4. giving oxygen, 5. preparing equipment for a medical emergency team, 6. handover using ISBAR.

c) 1. Recording vital signs, 2. Getting help, 3. Giving oxygen, 4. Positioning the patient appropriately, 5. Preparing equipment for a medical emergency team, 6. handover using ISBAR.

d) 1. Getting help, 2. collecting additional information, 3. positioning the patient appropriately, 4. considering oxygen therapy, 5. preparing equipment for a medical emergency team, 6. handover using ISBAR.

5. When undertaking a patient handover the pneumonic 'ISBAR' stands for:

a) Identify, Situation, Background, Assessment, Recommendation
b) Identify, Saturation, Background, Assessment, Reaction
c) Initiate, Situation, Background, Action, Recommendation
d) Implicate, Search, Backwards, Alternatives, Recommendation

6. When assessing if a patient is breathing or not, which of the following is correct?

1. Assess for 60 seconds
2. Look for chest movements
3. Use a mirror to check for exhaled air
4. Listen for breath sounds
5. Feel for exhaled air on your cheek
6. Always remove dentures

a) 1, 2 and 4
b) 2, 3 and 5
c) 2, 4 and 5
d) 1, 4 and 6

7. Relating to deteriorating patients which are the following are correct:

1. Patients with chronic hypertension may be hypotensive even where their systolic BP is greater than 100mmHg.

2. In adults a urine output of less than 200mls in eight hours may indicate serious illness.

3. A full set of vital signs includes the heart rate, blood pressure, oxygen saturation, capillary refill time and temperature

4. A patient with hypovolemic shock will have warm clammy skin.

5. A patient with hypoxia is likely to be confused.

a) 1, 4, 5

b) 1, 2, 5

c) 2, 3, 4

d) 1, 2, 3

8. The pulse can be palpated:

a) every time the atria contracts
b) when a vein is close to the surface of the skin
c) every time the left ventricle contracts
d) when an artery is close to the surface of the skin

9. In patients with a coronary syndrome, who are not seriously ill, oxygen should only be delivered where the oxygen saturation is:

a) less than 98%
b) less than 95%
c) greater than 95%
d) 93% or less

10. When using a non-rebreather mask:

   a) 40% oxygen is delivered to the patient

   b) 100% oxygen is delivered to the patient

   c) The reservoir bag should not be inflated prior to placing on the patient's face

   d) Oxygen flow rates of approximately 15 litres a minute are required in adults

11. Which of the following is *NEVER* compatible with cardiac output:

   a) Supraventricular tachycardia

   b) Ventricular tachycardia

   c) Atrial fibrillation

   d) Ventricular fibrillation

12. A normal heart rate for an adult at rest is:

   a) 60-80 beats per minute (bpm)

   b) 60-100 bpm

   c) 60-90 bpm

   d) 60-110 bpm

Date   **Candidate Number =**

Post Course Evaluation Questionnaire:

Please answer *ALL* questions.

Please give us some feedback

The FIRST2ACT program:

	Not at all 1	2	3	4	To a large extent 5
Was relevant to my needs	○	○	○	○	○
Was appropriate to my level of training	○	○	○	○	○
Provided effective feedback	○	○	○	○	○
Was challenging without being threatening	○	○	○	○	○
Enabled me to integrate theory into practice	○	○	○	○	○
Stimulated my interest in the topic	○	○	○	○	○
Encouraged me to think through a clinical problem	○	○	○	○	○

Having completed the course please re- rate your perceived ability to:

	Poor	Fair	Good	Very Good	Excellent
	1	2	3	4	5
Recognise a deteriorating patient	○	○	○	○	○
Manage emergency priorities	○	○	○	○	○
Perform emergency tasks	○	○	○	○	○

Having completed the course please re-rate your perceived confidence/competence in the management of a deteriorating patient:

	Poor	Fair	Good	Very Good	Excellent
	1	2	3	4	5
Confidence level	○	○	○	○	○
Competence level	○	○	○	○	○

Please add any other comments or suggestions

For example - what were the key things you learnt from this program or how could the program be improved?

………………………………………………………………………………………..

Measuring Situation Awareness (SA): there are a range of ways to measure SA. One technique is the Situation Awareness Assessment Technique (SAGAT) where a series of questions are developed – see below - and then participants are asked for their response immediately after a scenario has been completed (or sometimes a random point within a scenario)

Process for development of Situation Awareness questions *(Wright et al 2004: Objective measures of SA in a simulated medical environment)*

Goal Task Analysis (Cardiac)

Key Goal
Resuscitation

Sub Goal
Primary Stabilisation/Resuscitation (first 8 minutes)

Key Decisions
What is the patients' status (observations)?
Is assistance required?
What is the differential diagnosis?
What equipment is required?
What responses are required to the observations?
How should the patient be stabilised?

SA Requirements
Visual assessment (e.g. RR & LOC)?
Physiological monitoring (BP, HR, Temp, CRT, SpO_2)?
Awareness of the need for assistance?
Observation/indicators of pain?
Awareness of heart rythm?
Awareness of equipment requirements?
Awareness of applicable actions (e3.g. analgesia)?
Awareness of requirements for patient stabilisation (e.g. MONA)?

SAGAT Queries
Physiological Perception
What is the BP at the moment?
What is the HR at the moment?
What is the RR at the moment?
Global Situation Perception
Is suction available?
What's on the patient's wrist?
What was on the wall near the patient?
Comprehension
Is the patient adequately oxygenated?
What is wrong with this patient?
Projection
If condition does not improve, what will happen to the HR?
If condition does not improve, what will happen to the BP?
What investigations may be required?
What medications may be required?

Situation Awareness

Cardiac

Question	Answer	Right	Wrong
What medications may be required?	2 of- Morphine, Nitrates, Asprin		
What is the HR at the moment?	140 or 120		
Is the patient adequately oxygenated/sats?	NO - 89% - 93%		
What is on the patient's wrist?	A friendship band		
What investigations may be required?	2 of -12 lead ECG, Bloods (cardiac enzymes), CXR		
What was on the wall near the patient?	Childs drawing		
If condition does not improve, what will happen to the HR initially?	Increase		
What is wrong with the patient	MI		
What is the BP at the moment?	170/95 Or 140/80		
What is the respiratory rate at the moment?	32 or 25		
Is suction available?	Yes		
If condition does not improve, what will happen to the BP initially?	Increase then decrease		

Process for development of SA questions *(Wright et al 2004: Objective measures of SA in a simulated medical environment)*

Goal Task Analysis (Shock)

Key Goal
Resuscitation

Sub Goal
Primary Stabilisation/Resuscitation (first 8 minutes)

Key Decisions

What is the patients' status (observations)?

Is assistance required?

What is the differential diagnosis?

What equipment is required?

What responses are required to the observations?

How should the patient be stabilised?

SA Requirements

Visual assessment (e.g. RR & LOC)?

Physiological monitoring (BP, HR, Temp, CRT, SpO_2)?

Awareness of the need for assistance?

Observation/indicators of pain?

Awareness of heart rythm?

Awareness of equipment requirements?

Awareness of applicable actions (e3.g. analgesia)?

Awareness of requirements for patient stabilisation (e.g. MONA)?

SAGAT Queries

Physiological Perception

What is the BP at the moment?

What is the HR at the moment?

What is the respiratory rate at the moment?

Global Situation Perception

Is suction available?

Was there water in the glass?

Who is pictured in the picture on the bedside locker?

Comprehension

Is the patient adequately oxygenated?

What is wrong with this patient?

Projection

If condition does not improve, what will happen to the HR?

If condition does not improve, what will happen to the BP?

What investigations may be required?

What medications may be required?

Situation Awareness

Shock

Question	Answer	Right	Wrong
What medications may be required?	Adrenaline, Dopamine		
What is the HR at the moment?	130 or 70		
Is the patient adequately oxygenated/sats?	NO - 89% - 93%		
Was there water in the glass on the bedside table?	No		
What investigations may be required?	2 of – blood tests, Ultra sound, ECG		
Who is pictured in the picture on the bedside locker?	A family group.		
If condition does not improve, what will happen to the HR initially?	Increase prior to arrest		
What is wrong with the patient	Hypovolemia – related to internal bleeding ruptured Appendix		
What is the BP at the moment?	75/35 Or 105/75		
What is the respiratory rate at the moment?	25 or 15		
Is suction available?	YES		
If the condition continues what will happen to the BP?	Drop / Decrease		

Goal Task Analysis (Respiratory)

Key Goal
Resuscitation
Sub Goal
Primary Stabilisation/Resuscitation (first 8 minutes)

Key Decisions

What is the patients' status (observations)?

Is assistance required?

What is the differential diagnosis?

What equipment is required?

What responses are required to the observations?

How should the patient be stabilised?

SA Requirements

Visual assessment (e.g. RR & LOC)?

Physiological monitoring (BP, HR, Temp, CRT, SpO_2)?

Awareness of the need for assistance?

Observation/indicators of pain?

Awareness of equipment requirements?

Awareness of applicable actions (e.g. position)?

Awareness of requirements for patient stabilisation (e.g. non-invasive vent, nebulisers)?

SAGAT Queries

Physiological Perception

What is the BP at the moment?

What is the HR at the moment?

What is the respiratory rate at the moment?

Global Situation Perception

Is suction available?

What's on the bedside locker?

What is attached to the head of the bed?

Comprehension

Is the patient adequately oxygenated?

What is wrong with this patient?

Projection

If condition does not improve, what will happen to the HR?

If condition does not improve, what will happen to the RR?

What investigations may be required?

What medications may be required?

Situation Awareness

Respiratory

Question	Answer	Right	Wrong
What medications may be required?	2 of- beta2 agonists (ventolin), anticholinergics (atrovent), anti-biotics		
What is the HR at the moment?	150 or 145		
Is the patient adequately oxygenated/sats?	NO - 82% - 89%		
What's on the patient's bedside locker?	Flowers in a vase		
What investigations may be required?	2 of – Peak flow, Bloods (ABGs), CXR		
What is attached to the head of the bed?	A get well card.		
If condition does not improve, what will happen to the HR initially?	Increase		
What is wrong with the patient	COPD		
What is the BP at the moment?	170/110 Or 140/80		
What is the respiratory rate at the moment?	35 or 32		
Is suction available?	NO		
If condition does not improve, what will happen to the RR initially?	Increase		

The Team Emergency Assessment Measure (TEAM)

Please reference the authors in any publications relating to this tool.

Details of how to use this instrument and how it has been validated can be found at:

Emergency Teamwork Assessment (The TEAM Tool) http://medicalemergencyteam.com/

Team Emergency Assessment Measure (TEAM)

Introduction

This non-technical skills questionnaire has been designed as an observational rating scale for valid, reliable and feasible ratings of emergency medical teams (e.g. resuscitation and trauma teams). The questionnaire should be completed by expert clinicians to enable accurate performance rating and feedback of leadership, team work, situation awareness and task management. Rating prompts are included where applicable. The following scale should be used for each rating:

Never/Hardly ever	Seldom	About as often as not	Often	Always/Nearly always
0	1	2	3	4

Team Identification

Date_____ Time _____ Place _____

Team Leader _____ Team_____

Leadership: *It is assumed that the leader is either designated, has emerged, or is the most senior – if no leader emerges allocate a '0' to questions 1&2.*	0	1	2	3	4
1. The team leader let the team know what was expected of them through direction and command	☐	☐	☐	☐	☐
2. The team leader maintained a global perspective *Prompts: Monitoring clinical procedures and the environment? Remaining 'hands off' as applicable? Appropriate delegation?*	☐	☐	☐	☐	☐

Team Work: *Ratings should include the team as a whole i.e. the leader and the team as a collective (to a greater or lesser extent).*	0	1	2	3	4
3. The team communicated effectively *Prompts: Verbal, non-verbal and written forms of communication?*	☐	☐	☐	☐	☐
4. The team worked together to complete tasks in a timely manner	☐	☐	☐	☐	☐
5. The team acted with composure and control *Prompts: Applicable emotions? Conflict management issues?*	☐	☐	☐	☐	☐
6. The team morale was positive *Prompts: Appropriate support, confidence, spirit, optimism, determination?*	☐	☐	☐	☐	☐
7. The team adapted to changing situations *Prompts: Adaptation within the roles of their profession? Situation changes: patient deterioration? Team changes?*	☐	☐	☐	☐	☐
8. The team monitored and reassessed the situation	☐	☐	☐	☐	☐
9. The team anticipated potential actions *Prompts: Preparation of defibrillator, drugs, airway equipment?*	☐	☐	☐	☐	☐

Task Management	0	1	2	3	4
10. The team prioritised tasks	☐	☐	☐	☐	☐
11. The team followed approved standards/guidelines *Prompt: Some deviation may be appropriate?*	☐	☐	☐	☐	☐

Overall	1	2	3	4	5	6	7	8	9	10
12. On a scale of 1-10 give your global rating of the team's non-technical performance	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Comments: _____

_____

_____

_____

_____