THE MEDICAL SCHOOL

PHASE 2a – DIRECT OBSERVATION OF CLINICAL SKILLS IN SIMULATION (DOCSS)

March 2017

Guidance notes and assessment criteria

Phase 2a DOCSS

Obtaining a 12-lead ECG and setting up a cardiac monitor

INSTRUCTIONS FOR THE STUDENT

This patient has presented to the Accident and Emergency Department with complaints of palpitations and mild chest-tightness. The symptoms have been occurring intermittently for several hours now and the patient has never experienced anything similar before. When you see the patient, they are comfortable at rest but are still having intermittent palpitations. You are not required to take a history or examine the patient.

You need to:

- Perform a 12-lead ECG
- Set up an electrocardiograph (ECG) monitor

You should communicate as and when necessary with the patient during the course of the assessment.

To reduce the discomfort for the simulated patient they will already have their electrodes in place. The patient will be covered with a gown or bed sheet and you will need to indicate the ECG electrodes sites (stickers) on the diagram of the chest wall that is provided. You should then proceed to attach the appropriate lead wires to the patient's electrodes and obtain 12- lead ECG and monitor trace from the patient.

This station is **12 minutes** in length and to assist you with time-keeping, you will be given a verbal prompt by the invigilator after 6 minutes have elapsed.

After 12 minutes, the examiner will give you up to 2 minutes of verbal feedback on your performance and will tell you whether you have passed or failed each component of this station (i.e. performing the 12-lead ECG and setting up the monitor).

Phase 2a DOCSS

Obtaining a 12-lead ECG and setting up a cardiac monitor

INSTRUCTIONS FOR THE EXAMINER (page 1 of 2)

Before the examination starts, familiarise yourself fully with the instructions for the student and patient.

Please write the patient's real name and date of birth on their wrist band and add a fictional hospital number, ward and consultant e.g. A123456, Ward 5, Dr Smith.

Prior to the exam commencing, please attach the ECG electrodes stickers (only) (Do not attach the leads) to the patient in the following places:

For 12-lead ECG:

Limb leads (over bone where possible): right arm (red lead), left arm (yellow lead), left leg (green lead), right leg (black lead)

Chest leads: C1 = 4th intercostal space, right sternal border; C2 = 4th intercostal space, left sternal border; C3 = half-way between C2 and C4; C4 = 5th intercostal space, mid-clavicular line; C5 = anterior axillary line at the same horizontal level as C4; C6 = mid-axillary line at the same horizontal level as C4 and C5.

For cardiac monitoring:

(1) Right shoulder, over the acromion / lateral clavicle (red lead); (2) Left shoulder, over the acromion / lateral clavicle (yellow lead); (3) Left lower chest wall over lower ribs (green lead)

After placing the ECG electrodes (stickers), please cover the patient with a sheet or gown so that the electrodes are not visible to the student.

Please greet the student and give him/her the written instructions and a copy of the chest diagram. Write the student's name or candidate number on the mark sheets. If they do not have a number then write their name instead.

(continued)

Phase 2a DOCSS

Obtaining a 12-lead ECG and setting up a cardiac monitor

Instructions for examiners (page 2 of 2)

The student has been given the following instructions:

"This patient has presented to the Accident and Emergency Department with palpitations and mild chest-tightness. The symptoms have been occurring intermittently for several hours now and the patient has never experienced anything similar before. When you see the patient, they are comfortable at rest but are still having intermittent palpitations. You are not required to take a history or examine the patient.

You need to:

- Perform a 12-lead ECG and
- Set up an electrocardiograph (ECG) monitor

You should communicate as and when necessary with the patient during the course of the assessment. To reduce the discomfort for the simulated patient they will already have their electrodes in place. The patient will be covered with a gown or bed sheet and you will need to indicate the ECG electrodes sites (stickers) on the diagram of the chest wall that is provided. You should then proceed to attach the appropriate lead wires to the patient's electrodes and obtain 12- lead ECG and monitor trace from the patient" (End).

Marksheets: Please complete the following marksheets:

- Obtaining a 12-lead ECG; and
- Setting up an ECG monitor

Both marksheets must be completed in full and you must indicate on them whether the student has passed or failed each of the two components of this station. These are independent judgments and the student may pass one or both components. Please make legible feedback notes on the marksheets as these will be retained by The Medical School for future reference and a copy will be handed out to students.

At the conclusion of the station (i.e. 12 minutes), you will have up to 2 minutes to give verbal feedback to the student regarding their performance and you must tell them whether they have passed or failed each component of the station.

Following completion of the assessments, please remove the patient's stickers for them before they go home.

Phase 2a DOCSS

Obtaining a 12-lead ECG and setting up a cardiac monitor

INSTRUCTIONS FOR THE PATIENT

The purpose of this station is to test the student's skills in:

- Obtaining a 12-lead ECG and
- Setting up a cardiac monitor

The scenario is that you have come to the Accident and Emergency Department with palpitations and mild chest-tightness. These have been constant for a few hours now. Although your chest feels a little tight and uncomfortable, you are not breathless and are not in any significant pain. You have never had an ECG performed before and you have never been attached to a cardiac monitor. You are not required to act as though you are ill during this assessment.

Repeated attachment and removal of stickers, referred to as electrodes, can be uncomfortable. Instead of applying the ECG stickers to your own chest, the students will therefore be asked to indicate the site for the stickers on a sheet of paper with a picture of a chest on it. Prior to the start of the exam, the examiner will attach the ECG stickers to your chest, arms and legs and these will remain in place for the whole examination. If you have a hairy chest and legs, they will need to shave/clip small patches of hair prior to attaching the stickers. They will then cover these stickers with a gown or sheet. The stickers should be removed by the examiner before you go home. Please remind them if they forget to do so.

Note: Do let us know if you have any allergies or had problems with ECG stickers in the past. Kindly contact Clinical Skills and we shall organize a different patient for the session

The student will ask you your name, date of birth and hospital number. Please give them the requested information and show them your wristband. They will then consent you for the two procedures. The student will then connect the leads to your stickers and obtain an ECG and a monitor trace from you. You will not feel anything while they do this and the machine is taking electrical readings from your own heart, not passing any electricity through you. Talking and moving will cause interference with the ECG trace and it is essential that you stay as still as possible while the ECG machine is obtaining its reading. The student will indicate to you when you need to be still and not talk. Please respond appropriately to any questions that the student asks, but do not initiate any further conversation. Once the student has explained the procedure, they may ask if you have any questions: You do not.

If the student asks, you do not have any allergies.

When asked, you consent to the procedure being performed.

Candidate name/number. . . . . .

Marksheet 1 of 2: Obtaining a 12-lead ECG

Domains	Feedback (please write legibly)
Initiating the procedure: • Gathers relevant equipment • Identification of patient, explanation and rationale • Gains consent and checks for allergies	
Preparation: • Washes hands / uses alcohol gel • Positions the patient appropriately • Indicates electrode sites correctly on the diagram. • Correctly attaches the lead wires to the electrodes on the patient's limbs and ensures good skin contact • Correctly attaches the lead wires to the electrodes on the patient's chest wall	
Performance of task: • Asks the patient to lie still without talking • Ensures that the machine is calibrated to the correct settings • Records the ECG trace and checks for artefact • Removes the leads, leaving the electrodes in place • States "I would remove the electrodes carefully" (but should leave them in place for assessment purposes) and check sites of application for redness or itching • Incorporates safe moving and handling practice during procedure	
Documentation:: • Correctly labels the ECG with the patient's details, date and time • States "I would record the findings in the patient's notes".	

OVERALL RATING ON STATION (Please circle) **PASS** **FAIL**

EXAMINER'S NAME…….. SIGNATURE…….....

Candidate name/number. . . . . .

Marksheet 2 of 2: Setting up a cardiac monitor

Domains	Feedback (please write legibly)
Initiating the procedure: Please note – No need to do identification again. • Explanation and rationale of procedure • Gains consent and checks for allergies (if already asked about allergies earlier then there is no need to ask again)	
Preparation of equipment / patient: • Washes hands / uses alcohol gel • States "I would prepare patient correctly for electrode placement, by cleaning with an alcohol swab and shaving hair-bearing areas if needed" • Applies electrodes (stickers) to correct areas on the diagram. • Correctly attaches the cardiac monitor lead wires to the electrodes on the patient. • Switches on the monitor, selects an appropriate monitoring lead and sets the alarms within safe parameters	
Aftercare and safety • Checks the patient's welfare • States "I would check the electrode sites for any redness or itching" • Incorporates safe moving and handling practice during procedure	
Documentation: • States "I would record in the notes that monitoring has commenced and would make a note of the ECG rhythm on commencing monitoring"	

OVERALL RATING ON STATION (Please circle) **PASS** **FAIL**

EXAMINER'S NAME…….. SIGNATURE…….....

Phase 2a DOCSS

Administering a nebuliser and advising a patient on inhaler technique

INSTRUCTIONS FOR THE STUDENT

This patient, who is known to have COPD, has been admitted to the respiratory ward with a 24-hour history of worsening dyspnoea and wheeze. The patient is currently receiving 4 litres of oxygen via nasal cannulae to maintain his/her oxygen saturation at 88-92%.

You are asked to assemble a nebuliser and administer 5mg salbutamol to the patient.

Later, you observe the patient using their inhaler and notice that they are struggling to co-ordinate breathing-in and depressing the canister. You therefore teach them how to use an inhaler with a spacer device correctly.

You need to:

- Assemble the nebuliser correctly and administer the drug provided
- Advise the patient on correct inhaler technique, using a metered-dose inhaler and spacer device.

Note: A 5ml water in a syringe should be used to represent 5mg salbutamol in solution. This has been drawn up for you. You should administer the nebuliser to the manikin but should communicate with the examiner throughout this station as if they were the patient.

The examiner will then ask you two questions.

Q1: How would you objectively monitor the effectiveness of this treatment?

Q2: Why did you leave the nasal cannulae on when administering the nebuliser?

Next, you should explain clearly to the examiner how to use an inhaler and spacer device but neither you nor the examiner should put the inhaler in your mouth or inhale the medication (placebo).

This station is **12 minutes** in length and to assist you with time-keeping, you will be given a verbal prompt by the invigilator after 6 minutes have elapsed.

After 12 minutes, the examiner will give you up to 2 minutes of verbal feedback on your performance and will tell you whether you have passed or failed each component of this station (i.e. administering a nebuliser and advising a patient on inhaler technique).

Phase 2a DOCSS

Administering a nebuliser and advising a patient on inhaler technique

INSTRUCTIONS FOR THE EXAMINER (page 1 of 3)

Before the examination starts, familiarise yourself fully with the instructions for the student (see below).

Please write a name and date of birth on the manikin's wrist band and add a fictional hospital number, ward and consultant e.g. A123456, Ward 5, Dr Smith. Ensure that the same patient details are written on the drug card and that the following have been correctly prescribed:

Salbutamol 5mg nebuliser PRN

Salbutamol inhaler 2 puffs 4 hourly PRN

The student has been given the following instructions:

"This patient, who is known to have COPD, has been admitted to the respiratory ward with a 24-hour history of worsening dyspnoea and wheeze. The patient is currently receiving 4 litres of oxygen via nasal cannulae to maintain his/her oxygen saturation at 88-92%.

You are asked to assemble a nebuliser and administer 5mg salbutamol to the patient.

Later, you observe the patient using their inhaler and notice that they are struggling to co-ordinate breathing-in and depressing the canister. You therefore teach them how to use an inhaler and spacer device correctly.

You need to:

- Assemble the nebuliser correctly and administer the drug provided
- Advise the patient on correct inhaler technique, using a metered-dose inhaler and spacer device.

5ml water in a syringe should be used to represent 5mg salbutamol in solution.

This has been drawn up for you.

You should administer the nebuliser to the manikin but should communicate with the examiner throughout this station as if they were the patient. The examiner will then ask you two questions.

Next, you should explain clearly to the examiner how to use an inhaler and spacer device but neither you nor the examiner should put the inhaler in your mouth or inhale the medication (placebo)."

(continued)

Phase 2a DOCSS

Administering a nebuliser and advising a patient on inhaler technique

INSTRUCTIONS FOR THE EXAMINER (Page 2 of 3)

Please greet the student and give him/her the written instructions.
Write the student's name/ candidate number on the marksheets.

Although the student will administer the nebuliser to the manikin, they will communicate with you whilst doing so. They will ask you if you have ever used a nebuliser before and you should state that you have not. If asked, you do not have any allergies.
The student should explain to you what a nebuliser is and how it works e.g. it is a machine that drives oxygen or air through a solution of a drug to create a fine mist that you then inhale. They should give you clear instructions on how to use the nebuliser i.e. to breathe normally and inhale the mist. When asked, you consent to the nebuliser treatment.

Note:
It is important that the student recognises the risk of the patient desaturating if oxygen therapy is discontinued during nebuliser administration.
The oxygen via nasal cannulae should not be removed by the student.
The student should:

- Select the nebuliser with the mouthpiece rather than the mask.
- Connect the nebuliser to the compressor.
- Add the drug to the chamber (5mls water in a syringe to represent the drug).
- Switch the compressor on so that it starts to nebulise.

When the student has completed these tasks, switch the nebuliser off immediately and ask the following questions.

Q1: How would you objectively monitor the effectiveness of this treatment?
A: Peak flow 20 minutes after the nebuliser finishes

Q2 Why did you leave the nasal cannulae on when administering the nebuliser?
A: To prevent desaturation

(continued)

Phase 2a DOCSS
Administering a nebuliser and advising a patient on inhaler technique

INSTRUCTIONS FOR THE EXAMINER (Page 3 of 3)

The student will then teach you how to use an inhaler and spacer device. Although you have used an inhaler before, you are keen to be told how to do it from scratch as you are "sure you don't do it right". You have never used a spacer before.

A full set of instructions on how to use an inhaler and spacer are included in the relevant marksheet and you should use these as guidelines to assess the information given to you by the student.

Please complete the following marksheets:

- Administering a nebuliser
- Advising a patient on inhaler technique

Both marksheets must be completed in full and you must indicate on them whether the student has passed or failed each of the two components of this station. These are independent judgments and the student may pass one or both components.

Please make legible feedback notes on the marksheets as these will be retained by The Medical School for future reference and a copy will be handed out to students.

At the conclusion of the station (i.e.12 minutes), you will have 2 minutes to give verbal feedback to the student regarding their performance and you must tell them whether they have passed or failed each component of the station.

Candidate name/number. . . . . .

Marksheet 1 of 2: Administering a nebuliser

Domains	Feedback (please write legibly)
Initiating the procedure: • Gathers relevant equipment • Introduces self (full name & designation) • Identifies patient (manikin) correctly • Explanation and rationale • Gains consent and checks for allergies	
Preparation of equipment / patient: • Washes hands / uses alcohol gel • States "I would check the medication and expiry date against the patient's prescription chart" • Asks the patient if they have any known allergies • Selects the mouthpiece (NOT the mask) • Connects the tubing to the compressor • Correctly dispenses the 'drug' into the nebuliser chamber • States "I would ask the patient to sit upright and to hold the nebuliser chamber upright" • Switches the compressor on • Advises the patient to breathe through their mouth	
Safety • Checks patient welfare • Incorporates safe moving and handling practice during procedure	
Documentation: • States "I would document the procedure in the patient's notes"	
Answers to examiners questions: • To check peak flow 20 minutes after nebuliser finishes • To leave the nasal cannulae in place to prevent desaturation	

OVERALL RATING ON STATION (Please circle) **PASS** **FAIL**

EXAMINER'S NAME…….. SIGNATURE…….....

Candidate name/number. . . . . .

Marksheet 2 of 2: Advising a patient on inhaler technique (with a spacer)

Domains	Feedback (please write legibly)
Initiating the procedure: • Gathers relevant equipment • Explanation and rationale • Gains consent and checks for allergies	
Preparation: • Washes hands / uses alcohol gel • States "I would check the medication and expiry date against the patient's drug chart"	

Performance of task:
• Removes the cap from the metered dose inhaler and the cap from the spacer if it has one.
• Shakes the inhaler briskly 4 or 5 times.
• Inserts the inhaler into the spacer.
• Explains to the patient that they need to:
  • Breathe out gently.
  • Place the mouthpiece of the spacer into their mouth and create a good seal with their lips.
  • Press the canister once to release the dose of the drug.
  • Take a slow controlled deep breath in and hold for 10-15 seconds OR take 5 slow controlled breaths in and out.
  • Remove the mouthpiece from their mouth and breathe normally.
• Informs the patient that for a second dose, they should wait about 30 seconds before repeating the process.
• Removes the inhaler from the spacer and replaces the caps on the inhaler and the spacer.	

Safety • State that they will check patient welfare • Incorporates safe moving and handling practice during procedure	
Documentation:: • States "I would document the procedure in the patient's notes".	

OVERALL RATING ON STATION (Please circle) **PASS** **FAIL**

EXAMINER'S NAME…….. SIGNATURE…….....

Phase 2a DOCSS

Administering oxygen

INSTRUCTIONS FOR THE STUDENT

This 60-year-old patient has COPD and has been admitted with fever, shortness of breath, and a productive cough with green sputum. He has no chest pain and there are no features to suggest myocardial ischaemia / infarction on his ECG.

The patient smokes at least 40 cigarettes per day and has done for at least 30 years.
On admission, he was taking the following inhalers for his wheezy cough:
Salbutamol two puffs PRN
Seretide 250 two puffs bd

His arterial blood gases **on air** currently show:

		Normal Reference Ranges
pH	7.35	7.38 – 7.44
pCO_2	6.5 kPa	4.7 – 6.0 kPa
pO_2	7.3 kPa	12 – 14 kPa
HCO_3^-	31 mmol/l	22 – 26 mmol/l
SpO_2	86%	> 95%

You are required to select the most appropriate equipment to administer oxygen to this patient, prescribe the oxygen on the prescription sheet provided and commence the oxygen therapy on the manikin.

You should administer the oxygen to the manikin whilst communicating with the examiner as if they are the patient.

At the end of the procedure the examiner will ask you 2 questions.

Q1) What two things would you do to monitor this patient's response?

Q2) What range of oxygen saturation would you ideally aim to achieve?

This station is **6 minutes** in length.
After 6 minutes, the examiner will give you up to 1 minute of verbal feedback on your performance and will tell you whether you have passed or failed this station.

Phase 2a DOCSS

Administering oxygen

INSTRUCTIONS FOR THE EXAMINER (page 1 of 2)

Before the examination starts, familiarise yourself fully with the instructions for the student (see below).

Please write a name and date of birth for a 60-year-old man on the manikin's wrist band and add a fictional hospital number, ward and consultant e.g. A123456, Ward 5, Dr Smith.

The student has been given the following instructions:

"This 60-year-old patient has COPD and has been admitted with fever, shortness of breath, and a productive cough with green sputum. He has no chest pain and there are no features to suggest myocardial ischaemia / infarction on his ECG.
The patient smokes at least 40 cigarettes per day and has done for at least 30 years.
On admission, he was taking the following inhalers for his wheezy cough:
Salbutamol two puffs PRN
Seretide 250 two puffs bd

His arterial blood gases **on air** currently show:

		Normal Reference Ranges
pH	7.35	7.38 – 7.44
pCO_2	6.5 kPa	4.7 – 6.0 kPa
pO_2	7.3 kPa	12 – 14 kPa
HCO_3^-	31 mmol/l	22 – 26 mmol/l
SpO_2	86%	> 95%

You are required to select the most appropriate equipment to administer oxygen to this patient, prescribe the oxygen on the prescription sheet provided and commence the oxygen therapy on the manikin.
You should administer the oxygen to the manikin whilst communicating with the examiner as if they are the patient.
At the end of the procedure the examiner will ask you 2 questions.
This station is 6 minutes in length.
After 6 minutes, the examiner will give you up to 1 minute of verbal feedback on your performance and will tell you whether you have passed or failed this station."

(continued)

Phase 2a DOCSS

Administering oxygen

INSTRUCTIONS FOR THE EXAMINER (page 2 of 2)

Please greet the student and give him/her the written instructions.

Write the student's candidate's name/ number on the marksheet.

The theme of this station is the management of Type 2 respiratory failure. Therefore it is important that the student recognises the risk of uncontrolled high dose oxygen therapy.

The student should select the Venturi mask.

The student should identify the correct oxygen percentage (accept 24% (blue) OR 28% (white) as correct) and the correct flow rate for the valve they have selected (24% = 2 l/min; 28% = 4l/min). If the student does not select the correct flow rate please ask them to confirm what it should be.

The student should connect the tubing to an oxygen source and turn it on, checking patency / flow before applying the mask to the patient (manikin). They should indicate that a snug fit is needed, although they may not be able to achieve this on a manikin.

When the student has completed these tasks, please ask the following questions:

Q1) What two things would you do to monitor this patient's response?

Answers:

A. Monitor oxygen saturation levels with pulse oximetry
and
B. Repeat the arterial blood gas analysis within one hour

Q2) What range of oxygen saturation would you ideally aim to achieve?

A. 88% – 92%

Please complete the marksheet in full. You must indicate on it whether the student has passed or failed this station. Please make legible feedback notes on the marksheets as these will be retained by The Medical School for future reference and a copy will be handed out to students.
At the conclusion of the station (i.e. 6 minutes) you will have 1 minute to give verbal feedback to the student regarding their performance and you must tell them whether they have passed or failed this station.

Candidate name/number. . . . . .

Marksheet: Administering oxygen

Domains	Feedback (please write legibly)
Initiating the procedure: • Washes hands / uses alcohol gel • Introduces self (full name & designation) • Identifies patient (manikin) correctly • Selects Venturi mask • Identifies correct valve • Identifies correct oxygen flow rate • Prescribes oxygen correctly on the prescription chart	
Preparation of equipment and performance of task: • Assembles equipment correctly • Connects tubing to mask and to oxygen source • Turns on oxygen and checks patency / flow, prior to applying mask to patient • Applies mask correctly	
Safety • Checks patient welfare • Incorporates safe moving and handling practice during procedure	
Documentation: • States “I would document the procedure in the patient’s notes”	
Answers to examiner’s questions: • To monitor oxygen saturation and to obtain an arterial blood gas analysis within 1 hour • Target saturation 88 – 92%	

OVERALL RATING ON STATION (Please circle) **PASS** **FAIL**

EXAMINER’S NAME…….. SIGNATURE…….....

Phase 2a DOCSS

Administering an intramuscular injection

INSTRUCTIONS FOR THE STUDENT

This patient underwent surgery six hours ago. He/she has vomited once and is feeling constantly nauseated. He/she has been prescribed:

Stemetil (prochlorperazine) 12.5mg 8-hourly PRN, by intramuscular injection

- You are required to introduce yourself and briefly explain the procedure.
  You should speak to the examiner as if they were the patient but should perform the procedure on the manikin.
- You should then draw up and administer the drug by the intramuscular route, into the buttock of the manikin.

Please note that some manikins have a simulated pressure sore on one buttock and you should inject into the intact buttock rather than the side with the sore.

The ampoule of Sodium Chloride 0.9% is to be used in place of Stemetil. **You should only draw up and inject 1ml.**

Note: You need to don an apron and gloves for this procedure

This station is **6 minutes** in length.

After 6 minutes, the examiner will give you up to 1 minute of verbal feedback on your performance and will tell you whether you have passed or failed this station.

Phase 2a DOCSS

Administering an intramuscular injection

INSTRUCTIONS FOR THE EXAMINER (page 1 of 2)

Before the examination starts, familiarise yourself fully with the instructions for the student (see below).

Please write a name and date of birth on the drug card and manikin's 'wrist' band and add a fictional hospital number, ward and consultant e.g. A123456, Ward 5, Dr Smith.

Please ensure that the following has been correctly prescribed on the drug chart:

Stemetil (prochlorperazine) 12.5mg i.m. 8-hourly PRN

The student has been given the following instructions:

"This patient underwent surgery six hours ago. He/she has vomited once and is feeling constantly nauseated. He/she has been prescribed:

Stemetil (prochlorperazine) 12.5mg 8-hourly PRN, by intramuscular injection.

- You are required to introduce yourself and briefly explain the procedure. You should speak to the examiner as if they were the patient but should perform the procedure on the manikin.
- You should then draw up and administer the drug by the intramuscular route, into the buttock of the manikin.

Please note that some buttock manikins have a simulated pressure sore on one buttock and you should inject into the intact buttock rather than the sore.

The ampoule of Sodium Chloride 0.9% is to be used in place of Stemetil.

You should only draw up and inject 1ml.

Note: You need to don an apron and gloves for this procedure

This station is **6 minutes** in length.

After 6 minutes, the examiner will give you up to 1 minute of verbal feedback on your performance and will tell you whether you have passed or failed this station."

(continued)

Phase 2a DOCSS

Administering an intramuscular injection

INSTRUCTIONS FOR THE EXAMINER (page 2 of 2)

Please greet the student and give him/her the written instructions. Write the student's name/ candidate number on the marksheet.

Guidance on the correct performance of this procedure is contained within the marksheet.

The student will communicate with you during the procedure but will perform the procedure on the manikin. If asked, you have never had a drug injected into your buttock before. You don't have any allergies.

Note: Students need to don an apron and gloves for this procedure

Please complete the marksheet **in full.** You must indicate on it whether the student has passed or failed this station. Please make legible feedback notes on the marksheets as these will be retained by The Medical School for future reference and a copy will be handed out to students.

At the conclusion of the station (i.e. 6 minutes) you will have up to 1 minute to give verbal feedback to the student regarding their performance and you must tell them whether they have passed or failed this station.

Candidate name/number. . . . . .

Marksheet: Administering an intramuscular injection

Domains	Feedback (please write legibly)
Initiating the procedure: • Gathers relevant equipment • Introduces self (full name & designation) • Identifies patient correctly (Examiner to act as patient) • Explanation and rationale • Gains consent and checks for allergies	
Preparation of drug and equipment: • Collects together all necessary equipment • States "I would check the name, dose and route of administration of the drug against the prescription chart" • States "I would check the expiry date of the drug" • Washes hands / uses alcohol gel • Dons gloves and an apron • Maintains sterility when opening up packaging • Draws up 1ml of saline, as instructed • Changes the needle between drawing up the drug and administering the injection • Collects sharps bin and takes to bedside	
Performance of task: • Identifies the correct site for injection (upper outer quadrant). State that they will clean skin (optional) • Stretches skin around injection site • Inserts needle at 90 degrees to skin surface • Leaves a third of the needle visible • Checks that the needle is not in a blood vessel • Injects medication slowly • Removes needle and applies pressure at site	
Safety: • Disposes of sharps safely • States "I would sign the prescription chart at the patient's bedside" • Checks patient's welfare • Incorporates safe moving and handling practice during procedure	

OVERALL RATING ON STATION (Please circle) **PASS** **FAIL**

EXAMINER'S NAME…….. SIGNATURE…….....

Phase 2a DOCSS

Peak expiratory flow

INSTRUCTIONS FOR THE STUDENT

This patient is suspected of having asthma. Their General Practitioner has asked them to keep a peak flow diary for the next two weeks. During the first week the GP has said that they should not use any asthma medication and on day 7, the GP has asked them to start using a salbutamol inhaler. You have been asked to see the patient to teach them how to measure their peak flow.

Firstly, you need to explain to the patient:

- What is peak flow;
- Why they need to monitor their peak flow;
- When they should check their peak flow i.e. what times of day;
- How many exhalations are needed, and which result should be recorded?

Next, you need to teach the patient how to perform a peak flow measurement.
You should demonstrate the technique yourself for the patient and then ask the patient to perform **one** peak flow reading to check their understanding.
Show the patient how to record the results on a Peak Flow chart.

This station is **6 minutes** in length.
After 6 minutes, the examiner will give you up to 1 minute of verbal feedback on your performance and will tell you whether you have passed or failed this station.

Phase 2a DOCSS

Peak expiratory flow

INSTRUCTIONS FOR THE EXAMINER (page 1 of 2)

Before the examination starts, familiarise yourself fully with the instructions for the student (see below) and the patient.

Please ask the patient their name and date of birth and write these on their wrist band together with a fictional hospital number, ward and consultant e.g. A123456, Ward 5, Dr Smith.

The student has been given the following instructions:

"This patient is suspected of having asthma. Their General Practitioner has asked them to keep a peak flow diary for the next two weeks. During the first week the GP has said that they should not use any asthma medication and on day 7, the GP has asked them to start using a salbutamol inhaler. You have been asked to see the patient to teach them how to measure their peak flow.
Firstly, you need to explain to the patient:

- What is peak flow;
- Why they need to monitor their peak flow;
- When they should check their peak flow i.e. what times of day;
- How many exhalations are needed, and which result should be recorded.

Next, you need to teach the patient how to perform a peak flow measurement.
You should demonstrate the technique yourself for the patient and then ask the patient to perform **one** peak flow reading to check their understanding.

Show the patient how to record their results on a Peak Flow chart.
This station is **6 minutes** in length.

After 6 minutes, the examiner will give you up to 1 minute of verbal feedback on your performance and will tell you whether you have passed or failed this station."

Please greet the student and give him/her the written instructions.

Write the student's name/ candidate number on the marksheet.

(continued)

Phase 2a DOCSS

Peak expiratory flow

INSTRUCTIONS FOR THE EXAMINER (page 2 of 2)

Sample answer:

The student should explain to the patient that a peak flow meter measures the maximum speed that a patient can exhale air from their lungs in litres per minute. A patient's peak flow can be compared with normal expected values for someone of their age, sex and height and there are charts that can be used to work out normal values.

In asthma, the airways become narrowed and this reduces the speed that air can move through them. Changes in a patient's peak flow over time reflect changes in the severity of their disease and the effectiveness of their treatment. A peak flow diary is useful to guide doctors as to whether current asthma medication is working or whether a change in treatment regimen is needed.

In this patient's case, the GP wishes to see if there is any improvement in Peak Flow once the patient starts using a salbutamol inhaler, indicating that this treatment is effective in increasing air flow.

The student should explain to the patient that three readings should be taken every morning and every evening, before using their inhaler. The best of the three readings should be recorded in the Peak Flow Diary. It is common for morning readings to be lower than evening readings.

Guidance on the correct performance of this procedure is contained within the marksheet.

After teaching the patient how to perform the procedure, the student should show the patient how to record the measurements on a Peak Flow chart.

Please complete the marksheet **in full.** You must indicate on it whether the student has passed or failed this station. Please make legible feedback notes on the marksheets as these will be retained by The Medical School for future reference and a copy will be handed out to students.

At the conclusion of the station (i.e. 6 minutes) you will have 1 minute to give verbal feedback to the student regarding their performance and you must tell them whether they have passed or failed this station.

Phase 2a DOCSS

Peak expiratory flow

INSTRUCTIONS FOR THE PATIENT

Your General Practitioner suspects that you may have asthma and has asked you to keep a peak flow diary for the next two weeks. From day 7 onwards, he/she wants you to start using an inhaler when you feel short of breath. The inhaler contains a medicine called salbutamol which dilates the airways in asthma and some other respiratory conditions and will hopefully ease your symptoms. This would be reflected in an increase in peak flow.

You have never measured your peak flow before and don't know anything about it. If asked, you have no allergies.

The student has been instructed to explain to you:

- What is peak flow?
- Why you need to monitor your peak flow?
- When you should check your peak flow i.e. what times of day?
- How many exhalations are needed, and which result should be recorded?

Next, they will teach you how to perform a peak flow measurement.

They will demonstrate the technique themselves and then ask you to perform **one** peak flow reading to check your understanding. (You need to perform peak flow only once for the student).

In between them demonstrating the technique themselves and asking you to perform the technique, the student will change the disposable mouthpiece. Although a different mouthpiece will be used for each student for infection control purposes, it would be helpful if you could retain your mouthpiece for the duration of the examination.

Finally, the student will show you how to record your peak flow results on a Peak Flow Chart.

Please respond appropriately to any questions that the student asks, but do not initiate any further conversation.

For example, when the student has explained the procedure, they may ask if you have any questions: You do not.

Candidate name/number. . . . . .

Marksheet: Peak Expiratory Flow

Domains	Feedback (please write legibly)
Initiating the procedure: • Washes hands / uses alcohol gel • Gathers relevant equipment • Introduces self (full name & designation) • Identifies patient correctly	
• Explanation and rationale (see 'Instructions for examiners' for sample answer)	
Performance of task (student): • Sets pointer to zero • Sits upright and holds meter horizontally • Ensures that the movement of the pointer along the scale is not impeded • Takes a deep breath • Forms a tight seal with the lips around the mouthpiece • Blows as hard as possible for a short period of time "as if blowing out the candles on a birthday cake" • Notes the reading and resets the pointer to zero • Indicates that this would be performed three times and the highest value would be recorded	
Performance of task (patient): • Checks patient's technique • Shows patient how to record the result accurately on a Peak Flow Chart.	
Safety • Checks patient welfare • Incorporates safe moving and handling practice during procedure	

OVERALL RATING ON STATION (Please circle) **PASS** **FAIL**

EXAMINER'S NAME…….. SIGNATURE…….....

Phase 2a DOCSS

Subcutaneous injection

INSTRUCTIONS FOR THE STUDENT

This patient underwent a total knee replacement two days ago and is an inpatient on an orthopaedic ward. She has been prescribed clexane 40mg once daily for thromboprophylaxis. You need to administer the clexane by subcutaneous injection to the manikin provided.

You are required to introduce yourself and briefly explain the procedure. You should speak to the examiner as if they were the patient but should perform the procedure on the manikin.

You should then draw up and administer the drug by the subcutaneous route, into the lower abdomen of the manikin.

The ampoule of Sodium Chloride 0.9% is to be used in place of clexane. **You should only draw up and inject 1ml.**

Note: You need to don an apron and gloves for this procedure

This station is **6 minutes** in length.

After 6 minutes, the examiner will give you up to 1 minute of verbal feedback on your performance and will tell you whether you have passed or failed this station.

Phase 2a DOCSS

Subcutaneous injection

INSTRUCTIONS FOR THE EXAMINER

Before the examination starts, familiarise yourself fully with the instructions for the student (see below).

Please write a name and date of birth on the drug card and manikin's 'wrist' band and add a fictional hospital number, ward and consultant e.g. A123456, Ward 5, Dr Smith.

Please ensure that the following has been correctly prescribed on the drug chart:

Clexane 40mg once daily by subcutaneous injection

Note: There is no simulated patient at this station. You will be acting as the patient. You do not have any allergies.

Students need to don an apron and gloves for this procedure. Kindly prompt them in case they have not and proceed as indicated

The student has been given the following instructions:

"This patient underwent a total knee replacement two days ago and is an inpatient on an orthopaedic ward. She has been prescribed clexane 40mg once daily for thromboprophylaxis. You need to administer the clexane by subcutaneous injection to the manikin provided.
You are required to introduce yourself and briefly explain the procedure. You should speak to the examiner as if they were the patient but should perform the procedure on the manikin.
You should then draw up and administer the drug by the subcutaneous route, into the lower abdomen of the manikin.
The ampoule of Sodium Chloride 0.9% is to be used in place of clexane.
You should only draw up and inject 1ml.
Note: You need to don an apron and gloves for this procedure
This station is **6 minutes** in length.
After 6 minutes, the examiner will give you up to 1 minute of verbal feedback on your performance and will tell you whether you have passed or failed this station." (End)

Please greet the student and give him/her the written instructions.

Write the student's name/candidate number on the marksheet.

Guidance on the correct performance of this procedure is contained within the marksheet.
Please complete the marksheet in **full.** You must indicate on it whether the student has passed or failed this station. Please make legible feedback notes on the marksheets as these will be retained by The Medical School for future reference and a copy will be handed out to students.
At the conclusion of the station (i.e. 6 minutes) you will have 1 minute to give verbal feedback to the student regarding their performance and you must tell them whether they have passed or failed this station.

Candidate name / number. . . . . .

Marksheet: Subcutaneous injection

Domains	Feedback (please write legibly)
Initiating the procedure: • Introduces self (full name & designation) • Identifies patient correctly and checks patient's details in the drug chart • Explains procedure • Gains consent and checks for allergies	
Preparation of drug and equipment: • Collects together all necessary equipment • States "I would check the name, dose and route of administration of the drug against the prescription chart" • States "I would check the expiry date of the drug" • Washes hands / uses alcohol gel • Dons gloves and an apron • Maintains sterility when opening up packaging • Draws up 1ml of saline, as instructed • Changes the needle between drawing up and administering the injection • Collects sharps bin and takes to bedside	
Performance of task: • Identifies correct site for injection. State that they will clean skin (optional) • Pinches skin around site and informs patient that they may feel a sharp scratch • Inserts needle at 45 degrees to skin surface • Inserts needle into subcutaneous tissue and releases skin • Administers medication slowly • Removes needle and applies pressure at puncture site	
Safety: • Safe disposal of sharps • Signs prescription chart at the patient's bedside • Checks patient's welfare • Incorporates safe moving and handling practice during procedure	

OVERALL RATING ON STATION (Please circle) **PASS** **FAIL**

EXAMINER'S NAME…….. SIGNATURE…….....

Phase 2a DOCSS

Arterial blood sampling

INSTRUCTIONS FOR THE STUDENT

This patient is receiving oxygen therapy and you need to obtain a sample of arterial blood for analysis.

Note: There is no simulated patient at this station. The examiner will be acting as your patient.

You are required to introduce yourself to the patient and briefly explain the procedure. You should perform Allen's test on the patient (i.e. your examiner's wrist), and then perform the remainder of the procedure on the manikin.
Due to variability in the performance of these manikins, if you do not successfully obtain a blood sample from the manikin you should continue with the rest of the procedure as though you have done. You will not be penalised for this, provided you have performed the remainder of the procedure competently.

Note: You need to don an apron and gloves for this procedure

This station is **6 minutes** in length.

After 6 minutes, the examiner will give you up to 1 minute of verbal feedback on your performance and will tell you whether you have passed or failed this station.

Phase 2a DOCSS

Arterial blood gas sampling

INSTRUCTIONS FOR THE EXAMINER (Page 1 of 3)

Before the examination starts, familiarise yourself fully with the instructions for the student (see below) and other guidelines provided.

Note: There is no simulated patient at this station. You would be required to act as a patient for the first part of the assessment. The student will consent you for the procedure and carry out the Allen's test on your wrist. The remainder of the procedure will be performed on the manikin's arm. **Please Note:** If for any reason you do not wish to have the students perform the Allen's test on your wrist, do inform the Clinical Skills Team at your earliest convenience.

Before the session commences, please write a fictional name e.g. Joe Bloggs and date of birth on the wristband and add a fictional hospital number, ward and consultant e.g. A123456, Ward 5, Dr Smith.

The student has been given the following instructions:

"This patient is receiving oxygen therapy and you need to obtain a sample of arterial blood for analysis.
Note: There is no simulated patient at this station. Your assessor will be acting as your patient. You are required to introduce yourself to the patient and briefly explain the procedure. You should perform Allen's test on the patient (i.e. Your examiner's wrist), and then perform the remainder of the procedure on the manikin.

Due to variability in the performance of these manikins, if you do not successfully obtain a blood sample from the manikin, you should continue with the rest of the procedure as though you have done. You will not be penalised for this, provided you have performed the remainder of the procedure competently. This station is **6 minutes** in length.
After 6 minutes, the examiner will give you up to 1 minute of verbal feedback on your performance and will tell you whether you have passed or failed this station."

Please greet the student and give him/her the written instructions.

Write the student's name/ candidate number on the marksheet.

Guidance on the correct performance of this procedure is contained within the marksheet.

Please complete the marksheet in full. You must indicate on it whether the student has passed or failed this station. Please make legible feedback notes on the marksheets as these will be retained by The Medical School for future reference and a copy will be handed out to students. At the conclusion of the station (i.e. 6 minutes), you will have 1 minute to give verbal feedback to the student regarding their performance and you must tell them whether they have passed or failed this station.

Phase 2a DOCSS

Arterial blood sampling

INSTRUCTIONS FOR THE EXAMINER (page 2 of 3)

Please note:

The arterial blood sampling syringe provided for this assessment is:

The BD Preset Eclipse™. This has heparin sprayed inside the syringe. As per the manufacturer's instructions, the plunger should be drawn back to 1.6ml prior to puncturing the artery.
The safety guard needs to be pulled back during use, then snapped over the needle immediately after the sample has been obtained.

ALLEN'S TEST

Allen's test is used to determine whether the palmar arches are intact and patent, permitting either the radial or the ulnar artery to perfuse all of the digits of the hand if the other artery becomes occluded. It should be used prior to performing arterial blood sampling in case the procedure causes occlusion of the punctured artery.

How to do the test:

- Ask the patient to make a fist.
- Using your fingertips, occlude the blood flow through the radial and ulnar arteries at the wrist.
- Ask the patient to release the fist and observe the blanched appearance to the hand, while maintaining pressure on the arteries.
- Remove pressure from the ulnar artery whilst maintaining pressure on the radial artery and observe the reperfusion of the patient's hand. Observe whether all five digits are reperfused.
- Repeat the process with the radial artery.

Following the Allen's test the students will turn their attentions to the manikin but will continue to communicate with you whilst performing the procedure. The manikin has a rubber bulb attached to some tubing. **Please squeeze the rubber bulb rhythmically to simulate an arterial pulse whilst the student locates the artery and obtains their blood sample.** Once the student has withdrawn the needle from the manikin, you can stop simulating the pulse.

Phase 2a DOCSS

Arterial blood gas sampling

INSTRUCTIONS FOR THE EXAMINER (page 3 of 3)

Note: There is no simulated patient at this station. You would be required to act as a patient for the first part of the assessment. The student will consent you for the procedure and carry out the Allen's test on your wrist. Kindly read the following responses and use these when communicating with the student regarding consent. **Please Note:** If for any reason you do not wish to have the students perform the Allen's test on your wrist, do inform the Medical School at your earliest convenience.

Students need to don an apron and gloves for this procedure.

PATEINT SCENARIO AND RESPONSES TO STUDENT'S QUESTIONS

You are currently receiving oxygen therapy. The student has been asked to obtain a sample of blood from an artery in your wrist to see how well the oxygen therapy is working.

They will ask you your name and date of birth and will check these against the details on your wristband.

You have never had a blood sample taken from an artery before. The student will explain what the procedure entails and will ask you for your consent. You should indicate that you are happy for them to go ahead.

If asked, you do not have any allergies.

You should respond appropriately to any questions the student asks but should not initiate any other conversation with them during the procedure.

Before obtaining the blood sample from the manikin, the student will want to test the blood supply to your hand via the Allen's test. You have never had an Allen's test done before.

Following the Allen's test they will turn their attentions to the manikin but will continue to communicate with you whilst performing the procedure.

Candidate name/ number.....

Marksheet: Arterial blood sampling

Domains	Feedback (please write legibly)
Initiating the procedure: Examiner to act as your patient • Introduces self (full name & designation) • Identifies patient correctly • Explanation and rationale • Gains consent • Performs Allen's test	
Preparation of equipment: • Gathers necessary equipment • Washes hands / uses alcohol gel • Dons gloves and an apron • Opens equipment aseptically and prepares syringe • Collects sharps bin	
Performance of task (on manikin): • Identifies correct site for arterial puncture • Cleans skin • Punctures the radial artery at either 45 or 90 degrees and slowly advances the needle until it is sited intra-arterially • Allows the syringe to fill with blood. (For the purposes of this assessment in simulation, do not penalise the student for failing to obtain a 'blood' sample) • Carefully withdraws needle and applies firm pressure to the puncture site • Checks allergy status and secures cotton wool with tape • Asks the patient to press firmly for a minimum of five minutes • Ensures that air bubbles are expelled from the syringe and caps the sample • Rolls or inverts the syringe to mix contents with heparin • States "I would analyse this sample immediately, or if there is any delay, I would put the sample in ice"	
Safety: • Safe disposal of sharp • Checks patient's welfare • Documents results in notes, noting the concentration or flow rate of the inspired oxygen • Incorporates safe moving and handling practice during procedure	

OVERALL RATING ON STATION (Please circle) **PASS** **FAIL**

EXAMINER'S NAME…….. SIGNATURE…….....

Phase 2a DOCSS

Spirometry

INSTRUCTIONS FOR THE STUDENT

You are working in the Pre–operative Assessment Unit. You have been requested to perform spirometry on a 30 year old patient who is a known asthmatic and is scheduled for elective abdominal surgery.

Firstly, you need to explain to the patient:

- What is spirometry?
- Next, you need to teach the patient how to perform a spirometry.
- You should demonstrate the technique yourself for the patient and then ask the patient to perform to check their understanding. The patient only needs to perform once during the DOCSS assessment.

This station is **6 minutes** in length.

After 6 minutes, the examiner will give you up to 1 minute of verbal feedback on your performance and will tell you whether you have passed or failed this station.

Spirometry (explanation and consent)

Sample answer:

Spirometry is a common lung function test which looks at how well your lungs are working that is how well you can breathe in and out. Breathing in and out can be affected by lung diseases such as asthma, chronic obstructive pulmonary disease, pulmonary fibrosis and cystic fibrosis. Spirometry is also used to monitor the severity of these lung conditions, and their response to treatment.

A spirometer has a mouthpiece that you use to blow into the device. You will need to blow into a spirometer and will be given your results at the end of the procedure. Spirometry can help to tell whether if their breathing is obstructed by narrowing of the bronchial tubes as found in asthma or chronic obstructive pulmonary disease.

Phase 2a DOCSS

Spirometry

INSTRUCTIONS FOR THE EXAMINER

Before the examination starts, familiarise yourself fully with the instructions for the student (see below) and the patient.

Please ask the patient their name and date of birth and write these on their wrist band together with a fictional hospital number, ward and consultant e.g. A123456, Ward 5, Dr Smith.

The student has been given the following instructions:

You are working in the Pre–operative assessment Unit. You have been requested to perform spirometry on a 30 year old patient who is a known asthmatic and is scheduled for elective abdominal surgery.

You need to explain to the patient:

- What spirometry is;

Next, you need to teach the patient how to perform a spirometry. You should demonstrate the technique yourself for the patient and then ask the patient to perform to check their understanding. The patient only needs to perform once during the DOCSS assessment.

This station is **6 minutes** in length.

After 6 minutes, the examiner will give you up to 1 minute of verbal feedback on your performance and will tell you whether you have passed or failed this station."

Please greet the student and give him/her the written instructions.

Write the student's name/ candidate number on the marksheet.

(Continued)

Phase 2a DOCSS

Spirometry

INSTRUCTIONS FOR THE EXAMINER

Spirometry (explanation and consent)

Sample answer:

“Spirometry is a common lung function test which looks at how well your lungs are working that is how well you can breathe in and out. Breathing in and out can be affected by lung diseases such as asthma, chronic obstructive pulmonary disease, pulmonary fibrosis and cystic fibrosis. Spirometry is also used to monitor the severity of these lung conditions, and their response to treatment. A spirometer has a mouthpiece that you use to blow into the device. You will need to blow into a spirometer and will be given your results at the end of the procedure. Spirometry can help to tell whether if their breathing is obstructed by narrowing of the bronchial tubes as found in asthma or chronic obstructive pulmonary disease”.

Note: Guidance on the correct performance of this procedure is contained within the marksheet. After teaching the patient how to perform the procedure, the student should ask the patient to perform the test. The patient only needs to perform the test once during the DOCSS assessment.

Please complete the marksheet **in full.** You must indicate on it whether the student has passed or failed this station. Please make legible feedback notes on the marksheets as these will be retained by The Medical School for future reference and a copy will be handed out to students. At the conclusion of the station (i.e. 6 minutes), you will have 1 minute to give verbal feedback to the student regarding their performance and you must tell them whether they have passed or failed this station.

Phase 2a DOCSS

Spirometry

INSTRUCTIONS FOR THE PATIENT

You are a 30 year old patient who is a known asthmatic and is scheduled for elective abdominal surgery. The medical student has been directed to carry out spirometry on you as part of your pre-operative assessment.

The student has been instructed to explain to you:

- What spirometry is;
- The student will explain the procedure to you and take your consent to carry out the procedure.

Next, they will teach you how to perform the test (spirometry).

- They will demonstrate the technique themselves and then ask you to perform the test. You only need to perform the test once.
- Please respond appropriately to any questions that the student asks, but do not initiate any further conversation. For example, when the student has explained the procedure, they may ask if you have any questions: You do not.

Candidate name/number.....

Marksheet: Spirometry

Domains	Feedback (please write legibly)
Initiating the procedure • Washes hands / uses alcohol gel • Gathers relevant equipment • Introduces self (full name & designation) • Identifies patient correctly	
Explanation and rationale (see 'Instructions for examiners' for sample answer pg. 4)	
Performance of task (student) • States that they will record the patient's sex, age and height • Demonstrates technique correctly to the patient, including: Sitting upright, taking a deep breath, forming a tight seal around the mouthpiece, blowing out as hard and fast as possible until there is nothing left to expel	
Performance of task (patient) • Checks patient's technique • States that they will instruct patient to repeat twice more, resting for at least 30 seconds between each attempt. **Note** : patient only needs to perform the test once • States that they will record the highest value obtained from 3 attempts	
Safety • Checks patient's welfare • States that they will document the procedure and result in the patient's medical notes • Incorporates safe moving and handling practice during procedure	

OVERALL RATING ON STATION PASS FAIL

EXAMINER'S NAME…….. SIGNATURE…….....