

The Practical Procedures Policy

University of Buckingham Medical School

February 2023

Context

Part of the role of the medical school is to ensure on graduation that students are competent at a set of skills and practical procedures (PP) as defined by the General Medical Council (GMC). In Phase 1, these are taught in simulation. In Phase 2 the students must conform to the clinical governance procedures in their respective Trust to gain the skills and achieve competence to the GMC designated standard using work-based assessments.

Policy Statement

This policy provides guidance to Medical Students and all those involved in teaching PP, to ensure all students meet the minimum requirements mandated by the GMC prior to graduation.

It also details how supportive and reasonable adjustments can be implemented for learners to enable achievement of the practical skills and procedures, in line with the Equality Act 2010 and the Disability Discrimination Act 1995.

Definitions

Practical Procedures (PP) are those defined by the General Medical Council (GMC). At all times the students must comply with local Clinical Governance requirements as stipulated by the Local Education Provider (LEP).

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Scope

This document applies to all students on the MB ChB programme.

Policy Details

Introduction

The General Medical Council (GMC) has set a specific number of procedures and defined the minimum competence required of a newly graduated doctor. Please see the Outline of Practical Procedures from the GMC Handbook for details.

All evidence of competency is captured in accordance with Local Education Provider (LEP) procedures and policies. This evidence is then recorded in the students' Eportfolio and used to monitor progress and confirm attainment of the requirement at Final Professional Sign Off (FPSO). Students are encouraged to enhance their skills to higher levels of competence when opportunities arise.

Outline PP from GMC Handbook

Outline PP from GMC handbook								
Provisions for encouraging diversity in medicine								
Medical schools	must provide an education that allows newly qualified doctors to meet all the outcomes, including the practical skills and procedures specified in this list, and therefore to be fit to practise safely as a doctor when they graduate.							
Local education providers	working with medical schools, must provide and quality manage clinical placements and learning opportunities that give medical students the opportunities to build knowledge, skills and practical experience to meet the outcomes and to safely and effectively carry out the practical skills and procedures by the time they qualify.							
Medical students	are responsible for their own learning. They should refer to the outcomes and the practical skills and procedures specified in this list during their undergraduate education to understand what we expect them to be able to know and do by the time they graduate.							
What must newly qualified doctors demonstrate for satisfactory completion?								
Three levels of competence								
Safe to practise in simulation	This means that the newly qualified doctor will not have performed the procedure on a real patient during medical school, but on a simulated patient or manikin. This means that they will have some knowledge and skill in the procedure but will require direct supervision when performing the procedure on patients.							
Safe to practise under direct supervision	This means that the newly qualified doctor will have performed the procedure on real patients during medical school under direct supervision. By direct supervision, we mean that the medical student or newly qualified doctor will have a supervisor with them observing their practice as they perform the procedure. As the newly qualified doctor's experience and skill becomes sufficient to allow them to perform the procedure safely they will move to performing the procedure under indirect supervision.							
Safe to practise under indirect supervision	This means that the newly qualified doctor will have performed the procedure on real patients during medical school under direct supervision at first and, as their experience and skill becomes sufficient to allow them to perform the procedure safely, with indirect supervision. By indirect supervision, we mean that the newly qualified doctor is able to access support to perform the procedure if they need to – for example by locating a colleague and asking for help.							
Generic requirements for each procedure								
It's important to remember that newly qualified doctors who enter the Foundation Programme will work under educational and clinical supervision and in a multidisciplinary team. In accordance with the Foundation Programme Curriculum, they will need to demonstrate that they are refining their skills and that they are able to take responsibility appropriately whilst recognising and working within the limits of their competence.								
The following generic requirements apply to each procedure:								
		<ul style="list-style-type: none"> ■ introduce themselves ■ check the patient's identity ■ confirm that the procedure is required ■ explain the procedure to the patient (including possible complications and risks) and gain informed consent for the procedure (under direct supervision where appropriate) ■ follow universal precautions to reduce the risk of infections, including: <ul style="list-style-type: none"> control the risk of cross infection, and take appropriate steps for personal safety follow approved processes for cleaning hands before procedures or surgical operations correctly use personal protective equipment (for example gloves, gowns and masks) employ safe disposal of clinical waste, needles and other sharps dispose of all equipment in the appropriate receptacles ■ label samples appropriately according to local guidelines ■ accurately document the procedure according to local guidelines ■ ensure confidentiality ■ interpret any results and act appropriately on them; and ■ arrange appropriate aftercare/monitoring. 						
No	Procedure Group	Procedure	Level of competence			Taught		
			IS	DS	Sim	Sim	DS	IS
1		Take baseline physiological observations and record appropriately	x			1	1	2
2	Assessment of patient needs	Carry out peak expiratory flow respiratory function test	x			1	1	2
3		Perform direct ophthalmoscopy	x			1	1	2
4		Perform otoscopy	x			1	1	2
5	Diagnostic	Take blood cultures		x		2	2	
6		Carry out arterial blood gas and acid base sampling from the radial artery in adults		x		2	2	
7		Carry out venopuncture	x			1	2	2
8		Measure capillary blood glucose	x			1	1	2
9	Patient care	Carry out a urine multi dipstick test	x			1	1	2
10		Carry out a 3- and 12-lead electrocardiogram	x			1	2	2
11		Take and/or instruct patients how to take a swab	x			1	1	2
12		Perform surgical scrubbing up		x		2	2	
13	Prescribing	Set up an infusion		x		2	2	
14		Use correct techniques for moving and handling, including patients who are frail	x			1	2	2
15		Instruct patients in the use of devices for inhaled medication	x			1	1	2
16	Therapeutic	Prescribe and administer oxygen	x			2	2	2
17		Prepare and administer injectable (intramuscular, subcutaneous, intravenous) drugs		x		1	2	
18	Therapeutic	Carry out intravenous cannulation		x		1	2	
19		Carry out safe and appropriate blood transfusion			x	2		
20		Carry out male and female urinary catheterisation		x		1	2	
21		Carry out wound care and basic wound closure and dressing		x		1	2	
22		Carry out nasogastric tube placement			x	2		
23		Use local anaesthetics		x		2	2	
						1= Phase 1		
						2= Phase 2		

Teaching of practical procedures?

Phase 1

The teaching of practical procedures is distributed throughout the group work in the curriculum using simulation and a variety of models, simulated patients, and peer to peer.

Phase 2

The simulation teaching may be repeated and then the students follow the specific procedures for their trust to conform to local clinical governance processes.

Repeating students in either the junior or senior rotation will need to demonstrate they are keeping their skills up to date by collecting additional evidence in line with local trust governance procedures. This will need to be evidenced in the eportfolio.

Assessment

In Phase 1, students are asked to complete DOPPs-style forms either as a self-critique or peer-observation, to upload to their ePortfolios. They also receive feedback from the Clinical Educators during their teaching sessions. The portfolio is assessed formatively in Phase 1.

In Phase 2, assessment of competence for each practical procedure is completed by any clinician who is themselves competent in that specific procedure. This is captured by the Trust in either paper (physical signature in a logbook) or electronic (DOPPs ticket) format, according to their usual practises. During the junior rotation, Phase 2 Deputies will check-in with students during the year, to ensure that progress is being made. Students who are highlighted as being in danger of not meeting minimum progress by ARPP3 will be invited to discuss a proactive action plan in further detail.

At ARPP3, students must, within their ePortfolio, self-declare the number of practical procedures which have been started and to what level of competency they are working towards. They must substantiate their claim by means of attaching a scanned copy of their logbook and/or highlighting the relevant DOPPS ticket with the highest level of competence (in simulation, under direct supervision, under indirect supervision) for each declared procedure. A member of UBMS staff then samples 10% of students to verify evidence provided. The expectation is that they will have shown evidence of progression in at least 10 of the 23 practical procedures. For purposes of clarification, “progression” means that (with the exception of those practical procedures for which only simulation level competency is required, i.e., NG tubes and blood transfusion) they should have evidence showing that they are working at or above the level of “under direct supervision”.

Any student not meeting minimum standards for ARPP3 will receive an “unsatisfactory” grading on their ePortfolio, and will be required to remediate within 6 months of the ARPP3 deadline. This will be checked by UBMS staff, in conjunction with the Phase 2 Deputies. Their ePortfolio will not be eligible for an award of “excellence” at ARPP3.

At ARPP4, students must have complete evidence to show that they are competent to the required standard for all 23 practical procedures. Students who are highlighted as being in danger of not completing their practical procedures by ARPP4 will be invited to discuss a proactive action plan in further detail. Final certificates to confirm evidence of competency for all 23 practical procedures will be issued by the Trusts via the Phase 2 Deputies, and are to be uploaded by the students for

ARPP 4. These certificates can be paper based or electronic in accordance with local LEP policies. UBMS staff will ensure that all necessary evidence relating to practical procedures is contained within the ePortfolio, for all students.

Any student not meeting minimum standards for ARPP4 will receive an “unsatisfactory” grading on their ePortfolio, and will be required to remediate within 3 months of the ARPP4 deadline. This will be checked by UBMS staff, in conjunction with the Phase 2 Deputies. Their ePortfolio will not be eligible for an award of “excellence” at ARPP4.

At FPSO, all students must have complete evidence to show that they are competent to the required standard for all 23 practical procedures. A final check by UMBS staff (known informally as ARPP5) will be undertaken on any student not achieving “satisfactory” at ARPP4, to ensure this standard is met. No further opportunities for remediation will be given, and no students will be able to graduate without their completed evidence.

Use of PP in OSCE is limited to those procedures which are required to assess the patient or specific scenarios. Please see the Practical Procedures and Assessment chart for details.

Practical Procedures and Assessment

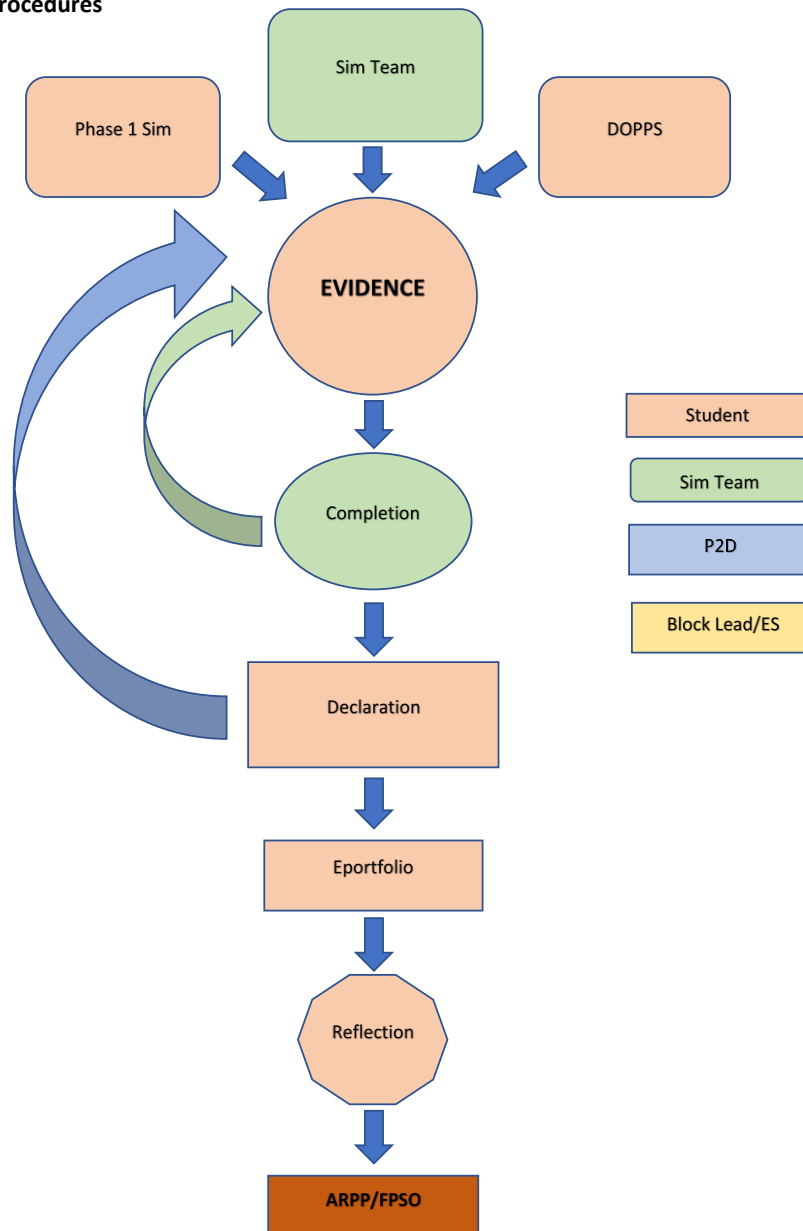
No	Procedure	Assessment			
		OSCE	WBA	Certification with Reflection	Confirmation
1	Take baseline physiological observations and record appropriately	1,2,3,4	Junior	ARPP 3	ARPP 5
2	Carry out peak expiratory flow respiratory function test	1,2,3,4	Junior	ARPP 3	ARPP 5
3	Perform direct ophthalmoscopy	2, 4	Senior		ARPP 4 ARPP 5
4	Perform otoscopy	2, 4	Senior		ARPP 4 ARPP 5
5	Take blood cultures		Senior		ARPP 4 ARPP 5
6	Carry out arterial blood gas and acid base sampling from the radial artery in adults		Senior		ARPP 4 ARPP 5
7	Carry out venepuncture		Junior	ARPP 3	ARPP 5
8	Measure capillary blood glucose		Junior	ARPP 3	ARPP 5
9	Carry out a urine multi dipstick test	1 to 4	Junior	ARPP 3	ARPP 5
10	Carry out a 3- and 12-lead electrocardiogram	1 to 4	Junior	ARPP 3	ARPP 5
11	Take and/or instruct patients how to take a swab	1 to 4	Junior	ARPP 3	ARPP 5
12	Perform surgical scrubbing up		Junior	ARPP 3	ARPP 5
13	Set up an infusion		Senior		ARPP 4 ARPP 5
14	Use correct techniques for moving and handling, including patients who are frail		Senior		ARPP 4 ARPP 5
15	Instruct patients in the use of devices for inhaled medication	1 to 4	Junior	ARPP 3	ARPP 5
16	Prescribe and administer oxygen		Senior		ARPP 4 ARPP 5
17	Prepare and administer injectable (intramuscular, subcutaneous, intravenous) drugs		Senior		ARPP 4 ARPP 5
18	Carry out intravenous cannulation		Junior	ARPP 3	ARPP 5
19	Carry out safe and appropriate blood transfusion		Senior		ARPP 4 ARPP 5
20	Carry out male and female urinary catheterisation		Senior		ARPP 4 ARPP 5
21	Carry out wound care and basic wound closure and dressing		Senior		ARPP 4 ARPP 5
22	Carry out nasogastric tube placement		Senior		ARPP 4 ARPP 5
23	Use local anaesthetics		Senior		ARPP 4 ARPP 5

Certification

The student makes a declaration of progression at the end of Junior rotation year. The evidence for this declaration is stored in the eportfolio and checked by UBMS staff at ARPP 3. Final certificates of competency are issued by the Trusts, uploaded by the student and verified by UBMS staff at Final Professional Sign Off (FPSO) prior to graduation. Please see the flow chart for details.

Flow Chart

Practical Procedures



List of Practical Procedures

1. Take Baseline Physiological Observations and Record Appropriately

a. Measuring Body Temperature

Using an appropriate recording device.

You should be able to:

- Explain the significance of a low or high temperature within the clinical context.
- Describe commonly used methods of temperature assessment
- Select appropriate site and thermometer for your patient.
- Explain when and why it is necessary to measure a patient's temperature
- Measure temperature with an ear thermometer and interpret the result
- know the reference range for the temperature for adults and children
- Explain the different techniques for adults and children

1.1 Tympanic Temperature: Assessment Performance Criteria

1. Inspect the ear canal for any obstruction (e.g. compacted wax, blood, foreign bodies)
2. Ensure the patient has not been lying on the ear to be assessed for at least 20 minutes.
If the patient has been laying on one ear, use the exposed ear for assessment.
3. Select an appropriate thermometer and ensure unit is in working order
4. Ensure thermometer is set to appropriate measurement site
(ear/oral/core/rectal/axillary depending on model)
5. Apply probe cover to thermometer without touching the film probe tip
6. Gently insert probe into patient's ear canal, ensuring a seal around the base of the probe – do not use excessive force
7. Press the scan button and note your result
8. Remove the cover from the thermometer probe and dispose of it appropriately
9. Washes Hands - Record on a patient's notes/chart and interpret your findings

1.2 Measuring Pulse Rate and Blood Pressure

Using manual techniques and automatic electronic device

Student should be able to:

- Explain the indications, relevance and technique of performing blood pressure measurements with an understanding of the physiological processes that govern blood pressure and the difficulties in assessing what is 'normal' for a particular patient
- Measure the blood pressure assessment competently using both manual and electronic techniques and discuss the common pitfalls in blood pressure measurement
- Describe the reference range for blood pressures and clinical significance and causes of a high or low blood pressure
- Record on an observation chart and interpret the results

1.3 Blood Pressure: Assessment Performance Criteria

1. Prepares Patient: Remove tight or restrictive clothing from the upper arm and ensures appropriate position support of arm at level of heart supported if required with pillow or on table. If in bed sitting at 45 degrees.
2. Choose the correct size cuff for your patient
3. Apply cuff to the upper arm at heart level, with the bladder overlying the brachial artery
4. Palpate the radial artery on the arm being examined
5. Inflate the cuff to 20-30mmHg beyond where the radial pulse is obliterated
6. Apply diaphragm of stethoscope over brachial artery (medial to biceps tendon)
7. Deflate cuff at 2-3mmHg/seconds
8. Listen for introduction of at least 2 tapping sounds – note the systolic pressure to nearest 2mmHg (Korotkoff phase 1)
9. Continue to deflate the cuff at 2-3 mmHg/second
10. Listen for point at which sounds disappear – note the diastolic pressure to nearest 2mmHg (Korotkoff phase 5 or 4)
11. Fully deflate the cuff
12. Able to record and present findings. Ensure any abnormal results are reported to an appropriate person.
13. If Applicable – Give patient's NEWS score chart correctly on an observation sheet
Remove and clean the equipment
14. Thanks the patient and explains findings and their significance, washes hands.

Outcomes Radial Pulse: Measure pulse rate/rhythm and character

- Demonstrate an understanding of when and why it is necessary to measure a patient's pulse and blood pressure with a sufficient understanding of anatomy
- Demonstrate competence in measuring the radial pulse
- Recognise a normal pulse, know whether it is regular or not and the significance of a slow, rapid or irregular pulse and understand the possible causes
- Know the reference range for the pulse rate in patients of different ages
- Understand the physiological processes that govern the heart rate and rhythm

1.4 Radial Pulse: Assessment Performance Criteria

1. Measure pulse rate/rhythm and character – 30 seconds
2. Palpate with fore and middle fingers over the radial artery (Anterior to the distal third of radius, lateral to tendon of flexor carpi radialis)
3. Apply gentle pressure, making sure not to obliterate pulse
4. Identify pulse rhythm and character of pulse
5. Palpate for 30 seconds in a regular rhythm with a normal rate. Palpate for 60 seconds in an irregular rhythm or rate to obtain a more accurate estimation.
6. Wash Hands – Record your findings

Transcutaneous Monitoring of Oxygen Saturation

Applying and taking readings from an electronic device which measures the amount of oxygen in the patient's blood

Student should be able to:

- Explain the basic principles by which a pulse oximeter works
- Know in what circumstances when and why it is necessary to check a patient's oxygen saturation and the reference ranges for oxygen saturation
- Demonstrate what checks need to be made of the equipment and competence in recording a patient's oxygen saturation with a pulse oximeter.
- Explain possible causes of inaccurate readings and the possible explanations for a low reading and know what further action might be needed in these circumstances.
- Measure patient's oxygen saturation accurately and to document oxygen saturation correctly

1.5 Respiratory Rate and Oxygen Saturation: Assessment Performance Criteria

1. During discussion, make an assessment of patient's ability to talk in full sentences, skin colour, conscious level and whether obviously in respiratory distress
2. Identify an appropriate site to perform pulse oximetry. Check site for warmth and capillary refill
3. Common sites are finger or earlobe. Site should be:
 - i. Well perfused
 - ii. Clean and free from nail polish
4. Position the appropriate sensor on the finger or earlobe, being careful not to occlude blood supply –
5. Note oxygen saturation displayed correctly read off and record the result
6. Explain finding and their significance to the patient Decide if further action is necessary and who to inform

2. Carry out Peak Expiratory Flow Respiratory Function Test

2.1 Basic Respiratory Function Tests

To measure a patient's peak flow safely and accurately

The student will be able to:

- Know in what circumstances it is necessary or useful to check a patient's peak flow
- Understand the basic principles by which a peak flow meter works
- Demonstrate competence in explaining to a patient how to use a standard peak flow meter
- Understand what to observe and check whilst a patient is using a peak flow meter
- Know what checks need to be made of the equipment
- Know what parameters determine the reference range for a patient's peak flow (sex, age and height) and know how to find out a patient's expected peak flow

- Demonstrate an understanding of the significance of the result.
- Understand the significance of a peak flow reading that is below the expected value.
- Understand the indications for performing spirometry
- Know the contra-indications to performing spirometry
- Understand how to assess reproducibility
- Know the limitations of the test
- Be able to interpret basic spirometry valves and know the common causes of obstructive and restrictive spirometry

2.2 Basic Respiratory Function Tests: Peak Flow: Assessment Performance Criteria

1. Check that gauge on meter moves freely and is set to zero
2. Apply new mouthpiece
3. Ask patient to stand (if they are able to do so)
4. Ask patient to take full inspiration, then seal lips tightly around the mouthpiece and blow as hard and as fast as possible
5. Emphasise to the patient that it is not the length of expiration that is being measured.
6. Check that patient's fingers are not in the way of the gauge.
7. Offer to demonstrate procedure to patient and do so if patient asks or if patient has difficulty using it correctly.
8. Ask the patient to have another two attempts and set the gauge back to zero before each attempt
9. Record that highest of the 3 readings and document it in patient's notes correctly (l/min).
10. Dispose of the mouthpiece 35
11. Ask the age and height of the patient
12. Use an approved chart to estimate the patient's predicted peak flow
13. Calculate the percentage of the expected peak flow that the patient obtained.
14. Interpret the significance of the result and explain it to the patient

2.3 Basic Respiratory Function Tests: Spirometry: Assessment Performance Criteria

1. Prepares the 'vitalograph' instrument correctly, ensuring that a clean mouthpiece is fitted. (The examiner should intervene and prompt if a clean mouthpiece is not fitted or the machine is otherwise not set up correctly)
2. Gives clear instructions to the patient
 - i. Breathe normally for a few breaths
 - ii. Inspire maximally
3. Supervises and encourages the patient to perform the test appropriately
 - i. Checks that the record is technically correct
 - ii. Smooth trace
4. Washes hands again
5. Thanks the patient
6. Explains the vitalograph results to the role-player

7. Reports findings to examiner

3. Perform Direct Ophthalmoscopy

Preparation

- Introduce yourself to the patient if you have not already done so and check the identity of the patient
- Wash your hands
- Ask the patients permission to carry out the examination
- Give a brief explanation to the patient before you start. Further explanation/instructions can be given as you proceed
- Patient position

Ophthalmoscopy/slit lamp

Check the ophthalmoscope is on, the light needs to be bright and white and the light circular. Set all the numbers to "0". If the patient is wearing glasses ask for them to be removed. It is up to you as to whether you keep yours on or take them off

Pupil dilation aids examination but even with dilation not all the retina is visualised with a direct ophthalmoscope.

The light in the room needs to be as dim as possible

Explain to the patient what you are about to do and explain that the bright light will temporarily dazzle them

Ensure the patients sitting comfortably and ask them to fix on an object, choose something slightly away from you and ask them to keep looking at this spot even if your head gets in the way

Examine the patients left eye with your left eye and vice versa. Try and keep both eyes open

When positioning yourself, place your hand on the patient's forehead, fingers splayed but your thumb near their upper lid to keep it open and also to guide you as to where your forehead needs to end up. Be.g.in at arms length. Shine the light into the pupil (red reflex). Follow this reflex till your forehead rests on your thumb. You should see the optic disc. Turn the dial to get it into focus (turn the dial the other way if it becomes more blurred) whilst keeping your head still. If the optic disc doesn't come directly into view - follow a blood vessel to the optic disc.

To look at the macula ask the patient to look directly into the light

To look at the anterior chamber put the dial on +10

Don't be shy you have to get close to the patient- almost cheek to cheek

When using the ophthalmoscope Inspect:

- Lids
- Conjunctiva
- Cornea
- Anterior chamber

- Iris
- Pupil
- Lens
- vitreous
- Retina
- Optic disc- size, colour, margins, new vessels,
- Macula -temporal to the disc- haemorrhages, exudates, pigment
- Blood vessels- haemorrhages, exudates, a/v nipping

Present your findings and to complete the examination - always thank the patient

4. Perform Otoscopy

Preparation

- Introduce yourself to the patient if you have not already done so and check the identity of the patient
- Wash your hands
- Ask the patients permission to carry out the examination
- Give a brief explanation to the patient before you start. Further explanation/instructions can be given as you proceed.
- Patient position
 - General inspection
 - Check for pain.

Otoscopy

- Hold auroscope in your Right hand when checking the Right ear and Left hand when checking the Left ear
- Pull on the pinna to straighten the canal (up and back)
- Choose appropriate size speculum
- Insert gently in line with the canal
- Hold it like a pen
- Observe:
 - Canal – surface
 - Tympanic membrane
 - Pars tensa
 - Pars flaccida (where cholesteotmas collect)
 - Lateral process and handle malleolus
 - Light reflex

5. Taking Blood Cultures

5.1 Taking samples of venous blood to test for the growth of infectious organisms in the blood

The student will be able to:

- Demonstrate an understanding of when and why it is necessary to take blood cultures
- Know how to perform the test using aseptic technique
- Be able to correctly label the bottles and send to the lab
- Know the common pitfalls that lead to contamination and false results
- Demonstrate competence in taking a set of blood cultures from a patient taking the necessary steps to avoid needle stick injury, contamination and labelling errors
- Be able to interpret blood cultures and manage any results phoned back from microbiology.
- Understand how to avoid needlestick injury

a. Taking Blood Cultures: Assessment Performance Criteria

- i. Prepares equipment
- ii. Cleans bottle tops
- iii. Assesses arm
- iv. Applies tourniquet
- v. Cleans arm - let dry 30 s
- vi. Hold needle correctly
- vii. Warns about sharp scratch
- viii. Inserts needle at appropriate angle
- ix. Inserts anaerobic and then aerobic bottles
- x. Removes tourniquet
- xi. Withdraws needle and applies pressure
- xii. Covers wound
- xiii. Disposes of sharps
- xiv. Labels bottle

6. Carry out Arterial Blood Gas and Acid Base Sampling from the Radial Artery in Adults

The student will be able to:

- Demonstrate an understanding of when and why it is necessary to carry out arterial blood gas and acid base sampling from the radial artery in adults
- Know how to perform the procedure using aseptic technique
- Be able to correctly label the syringe and send appropriately to the laboratory or testing using point of care machine
- Know the common pitfalls that lead to inability to obtain a sample or false results
- Demonstrate competence in taking an arterial blood sample from a patient taking the necessary steps to avoid needle stick injury and labelling errors

- Be able to interpret arterial blood gas results
- Understand how to avoid needlestick injury

**a. Carrying out arterial blood gas and acid base sampling from the radial artery in adults:
Assessment Performance Criteria**

- i. Washes hands, introduces self to the patient and clarifies their identity.
- ii. Explains procedure and obtains consent
- iii. Gathers the necessary equipment: A blue (23 G) needle, 2ml syringe with heparin, cap for the syringe, plastic bung, local anaesthetic (plus needle and syringe for giving), alcohol gel, gauze, gloves and sharps bin
- iv. Positions the patient's arm with the wrist extended
- v. Locates the radial artery
- vi. Performs Allen's test
- vii. Puts on gloves
- viii. Attaches the needle to the heparinised syringe
- ix. Prepares the local anaesthetic and gives a small amount over the radial artery
- x. Takes the cap off the needle, flushes the heparin through the syringe
- xi. Locates the radial artery using non-dominant hand
- xii. Warns patient to expect a sharp scratch
- xiii. Inserts the needle at 30 degrees to the skin at the point of maximum pulsation of the radial artery
- xiv. Advances the needle until arterial blood flushes into the syringe.
- xv. Removes the needle/syringe
- xvi. Places the needle into the bung
- xvii. Presses firmly over the puncture site with the gauze for 5 minutes
- xviii. Caps the syringe
- xix. Pushes out any air
- xx. Packs syringe in ice and sends immediately to the laboratory or point of care machine
- xxi. Removes gloves and disposes them in the clinical waste bin
- xxii. Washes hands
- xxiii. Records inspired oxygen content
- xxiv. Thanks the patient

7. Carry out Venepuncture

To be able to perform venepuncture to take a sample of blood for testing

The student will be able to:

- Explain the procedure of venepuncture to a patient
- Perform venepuncture using a vacutainer
- Understand the importance of taking blood samples in the correct bottles by making

sure blood samples are placed in the correct containers and labelled correctly. Taking measures to prevent spilling and contamination

- Practice in a safe fashion to avoid needle stick injury
- Use aseptic technique
- Safe disposal of sharps after the procedure

a. Venepuncture: Assessment Performance Criteria

- i. Prepares equipment
- ii. Assesses arm
- iii. Applies tourniquet
- iv. Cleans arm - let dry 30 s
- v. Hold needle correctly
- vi. Warns about sharp scratch
- vii. Inserts needle at appropriate angle
- viii. Inserts blood bottle
- ix. Takes sample
- x. Removes tourniquet
- xi. Withdraws needle and applies pressure
- xii. Covers wound
- xiii. Disposes of sharps
- xiv. Labels bottle

8. Measure Capillary Blood Glucose

Measuring the concentration of glucose in the patient's blood at the bedside using appropriate equipment and interpreting the results.

Student will be able to:

- Explain when and why it is necessary to measure blood glucose
- Demonstrate competence in measuring the concentration of glucose at the bedside and avoid errors - record this in the patient's records
- Interpret the results and know what action to take with the reference to range for the normal values of blood glucose in the fasted and non-fasted state
- Interpret the results with regards to the significance of a low and high reading and what immediate action to take

a. Measuring Blood Glucose: Assessment Performance Criteria

- i. Performance Measuring Blood Glucose: Criteria as per MK Policy at the Bed Side
- ii. Check machine has been calibrated and the Code on strip matches code on machine
- iii. Wash own hands and ensure patient's hands are also clean (to avoid contamination)
- iv. Ensure that patient is comfortable and rested, with hand supported
- v. Use a single use lancet to prick finger (use side of fingertips if possible)

- vi. Wait for 2 seconds for drop of blood to appear and then hold down and 'milk' the finger if required
- vii. Allow spot of blood onto recording strip and place correctly in bedside device (switched on) and record result
- viii. Dispose of lancet in sharps bin
- ix. Dispose of gloves and wash hands
- x. Explain findings and their significance to patient Record BM in records and decide if further action is necessary

9. Carry out a Urine Multi Dipstick Test

To perform urinalysis safely and accurately

The student will be able to:

- Understand when urinalysis useful or necessary
- Demonstrate understanding of the knowledge needed to perform Urinalysis using Multistix
- Know what personal protective equipment is needed
- Know what checks should be made before using the Multistix
- Know how to undertake urinalysis accurately and document the findings
- Understand what findings need further investigation
- Understand the causes of false positive and false negative results

a. Urine Multi Dipstick Test: Assessment Performance Criteria

- i. Checks name on sample
- ii. No contamination of specimen
- iii. No contamination of dipstick and checks expiry date
- iv. Inspects colour and checks for odour
- v. Covers dipstick with specimen completely
- vi. Places dipstick on paper towel in tray
- vii. Allows time for reagents to work (60 secs and 90 secs for leu) – explains timings
- viii. Careful disposal of dipstick
- ix. Disposes of PPE and washes hands
- x. Identifies urine results correctly

10. Carry out a 3- and 12- Lead Electrocardiogram

To be able to manage an electrocardiograph monitor and interpret the tracing

The student will be able to:

- Understand how to attach the electrodes to obtain a continuous ECG trace
- Ensure the recorder is functioning correctly
- Be able to describe the normal ECG waveform and what the different waves represent

- with regards to the electrical conduction of the heart Interpret the ECG trace
- Understand the normal electrical conduction of the heart and how it can go wrong in disease
 - Know how to analyse the ECG trace using a systematic approach
 - Be able to describe the rate and rhythm of the ECG and identify common tachy and brady arrhythmias and relate these to likely symptoms and signs the patient might display

a. Monitoring ECG: Assessment Performance Criteria

- i. Attaches limb leads correctly
 1. RA - (red) R arm over humeral head
 2. LA - (yellow) L arm over humeral head
 3. LL - (green) L leg over lateral malleolus
 4. RL - (black) R leg over lateral malleolus
- ii. Uses skin prep correctly
- iii. Uses bony landmarks to identify chest lead positions
- iv. Attaches chest lead stickers correctly
- v. Connects leads correctly
 1. V1 - r 4th intercostal space
 2. V2 - l 4th intercostal space
 3. V3 - between V2 and V4
 4. V4 - 5th intercostal space midclavicular line
 5. V5 - horizontally from V4 towards mid axillary line
 6. V6 - horizontally from V5 in mid axillary line
- vi. Checks calibration (1mv/cm)
- vii. Obtains trace adequately
- viii. Documents procedure - labels ECG with name and dob
- ix. Unclips and removes all the wires
- x. Washes hands
- xi. Thanks patients
- xii. Interprets the ECG
 1. rate
 2. rhythm
 3. axis
 4. P waves
 5. QRS complexes
 6. ST segments
 7. T waves
 8. QT interval

11. Take and/or instruct patients how to take a swab

To be able to take nose, throat and skin swabs

The student will be able to:

- Use the correct technique to apply sterile swabs to the nose, throat and skin
- Understand the indications for performing these swabs in clinical practice
- Be able to interpret the results
- Understand the limitations of the swabs
- Be able to explain the procedure to patients

a. Taking Nose, Throat and Skin swabs: Assessment Performance Criteria

- i. Nose Swab
 1. Patient sitting
 2. Moisten end with sterile water
 3. Insert swab vertically into nostril
 4. Rotate swab
- ii. Throat Swab
 1. Patient sitting with light shining in mouth
 2. Depress tongue with tongue depressor
 3. Quickly lightly rub swab over tonsillar fossa
- iii. Wound Swab
 1. Swab before cleaning wound from area with most pus or moisture.
- iv. Place swab into container without letting it touch anything else
- v. Thanks patient
- vi. Bins waste and gloves
- vii. Fills in demographics on swab samples with 3 data points – name, dob, NHS number
- viii. Fills in request form
- ix. Documents in notes

12 Perform surgical scrubbing up

To be able to undertake hand washing and 'scrubbing up' to an accepted standard

The student will be able to:

- Demonstrate an understanding of why meticulous hand washing is so important
- Know the potential risks to the patients of not practising good hygiene
- Demonstrate competent hand washing in the ward and out-patient setting
- Demonstrate competence in 'scrubbing-up' in theatre

a. Hand Washing: Assessment Performance Criteria

- i. Rinses hands with warm water

- ii. Applies soap to palm
- iii. Rubs palm to palm
- iv. Rubs back of hands
- v. Interlaces fingers
- vi. Rubs back of fingers with opposite palm
- vii. Rotates around thumbs
- viii. Rubs fingertips to palms
- ix. Rubs wrists
- x. Rinses hands and turns off taps
- xi. Dries hands correctly
- xii. Whole process takes 15-30s

b. Surgical Scrubbing Up: Assessment Performance Criteria

- i. Puts on mask correctly
- ii. Opens gown correctly
- iii. Opens gloves onto sterile gown
- iv. Rolls sleeves back
- v. Optimises water temperature
- vi. Uses dispenser correctly
- vii. Uses correct scrub technique
- viii. Scrubs hands for adequate time
- ix. Closes taps with elbows
- x. Dries hands correctly
- xi. Dons gown correctly
- xii. Applies gloves
- xiii. Ties gown with assistants help

To understand when to use personal protective equipment

The student will be able to:

- Demonstrate an understanding of when to use personal protective equipment
- Demonstrate competence in applying this equipment and what protection is offered by their use
- Know the different types of personal protective equipment available and when these need to be used
- Understand the importance of ensuring adequate personal protective for all clinical procedures

c. Use of Personal Protective Equipment: Assessment Performance Criteria

This will be assessed by compulsory attendance at Trust induction and incidentally as part of the assessment of the other CAPs.

13. Set up an infusion

To be able to set up an infusion

The student will be able to:

- Demonstrate an understanding of when and why it is necessary to set up an infusion
- Understand the importance of aseptic technique and be able to implement them
- Demonstrate competence in setting up an infusion
- Understand the basic principles of IV fluid therapy
- Be able to check the fluid in the bag and fluid prescription chart
- Know how to set up the fluid bag and 'giving set' in a sterile fashion without leaving any bubbles of air in the system
- Know how to adjust the drip rate according to the prescription
- Be able to use an electronic infusion device

a. Intravenous Infusion: Assessment Performance Criteria

- i. Introduces self to patient
- ii. Asks the patient's name and dob
- iii. Washes hands
- iv. Explains procedure
- v. Gains consent
- vi. Check identify
- vii. Use PPE
- viii. Check fluid to be infused including checking expiry date
- ix. Unwrap giving set and check its integrity/expiry date
- x. Sign and date fluids
- xi. Depress the chamber to expel air and then plunge the spike into the fluids
- xii. Release the chamber, invert bag and fill chamber
- xiii. Prime the giving set
- xiv. Check the line for air bubbles
- xv. Clean the port on the cannula
- xvi. Flush the cannula
- xvii. Connect the giving set to the cannula
- xviii. Set the infusion running
- xix. Thanks patient
- xx. Washes hands

14. Use correct techniques for moving and handling, including patients who are frail

Using, or directing other team members to use, approved methods for moving, lifting and handling people or objects, in the context of clinical care, using methods that avoid injury to patients, colleagues, or oneself.

The student will be able to:

- Demonstrate an understanding of how to lift and move patients and objects in a way that avoids harm to the patient, other staff members or themselves
- Demonstrate competence in using correct techniques for moving and handling patients
- Understand the importance of using correct techniques when asked to assist with moving heavy objects or patients

a. Correct Techniques for 'Moving and Handling' Including Patients: Assessment Performance Criteria

The students complete an ELH module in the early part of Phase 1.

This will be assessed by compulsory attendance at both the university lectures and the LEP Trust induction.

15 Instruct patients in the use of devices for inhaled medication

To be able to instruct patients in the use of the common devices for inhaled medication

The student will be able to:

- Demonstrate an understanding of the different types of inhalers on the market and their strengths and weaknesses
- Demonstrate competence in instructing patients who should use each of the main types of device (accuhaler, turbohaler, MDI, spacer)
- Be able to identify, give clear instructions to a patient on how to use an inhaler and to assess them using it

a. Instructing Patients in the Use of Devices for Inhaled Medication: Assessment Performance Criteria

- i. Explore the patient's understanding of their condition (asthma/COPD)
- ii. Discuss their inhaler use and their understanding of their treatment
- iii. Explain the use of the different inhalers/devices available:
 1. Salbutamol (Reliever) to be taken during attacks to help relieve symptoms
 2. Beclomethasone (Preventer) to be taken regularly to lower the risk of exacerbations
 3. Spacer helps with the uptake of inhaled medication ensuring it reaches the lungs
- iv. Go through the steps involved and then demonstrate the use of the inhaler to the patient:

1. Check inhaler expiry date
 2. Remove inhaler cap
 3. Correct body position
 - standing up or sitting up
 4. Prepare inhaler and spacer
 5. Shake inhaler and attach to spacer
 6. Breathe out gently
 7. Form a tight seal around spacer mouthpiece
 8. Firmly press down on the canister to release dose
 9. Breathe in and out deeply and slowly for 5 breaths
 10. Remove spacer from mouth
 11. To take a further dose repeat the same steps, wait at least 30 seconds before repeating
- v. Thank the patient
 - vi. Summarise and highlight key take home messages
 - vii. Signposting
 - viii. Provide reliable source of further information e.g. www.asthma.org.uk
 - ix. Patient.co.uk for information leaflets

16. Prescribe and administer Oxygen

To administer oxygen safely to patients

The student will be able to:

- Demonstrate an understanding of when and why it is necessary to provide the patient with supplementary oxygen
- Demonstrate competence in the prescribing and administration of oxygen
- Understand the basic principle that oxygen is a treatment for hypoxaemia, not breathlessness
- Know how to prescribe oxygen according to a target saturation range
- Know how to apply high concentration oxygen to critically ill-patients
- Be able to apply oxygen using nasal cannulae, non-rebreather mask, venturi masks and humidification circuits
- Know when arterial blood gas measurements should be performed
- Understand the possible explanations for a low reading and know what further action might be needed in these circumstances
- Know how to reduce and discontinue oxygen in stable patients with satisfactory oxygen saturations

a. Administering Oxygen: Assessment Performance Criteria

- i. Explain procedure to patient and obtain verbal consent
- ii. Correctly record the oxygen prescription on the drug chart
- iii. Correctly set up the oxygen circuit (showing how this would be delivered using nasal cannulae, venturi mask or non rebreathe mask)

- iv. Correctly check the mask fit for comfort and correct delivery
- v. Be able to add in a humidification circuit
- vi. Decide what monitoring the patient requires after set up, including when to perform arterial blood gas monitoring if required

17. prepare and administer injectable (intramuscular, subcutaneous, intravenous) drugs

To be able to prepare medicines in a form suitable for injection into the patient's vein.

The student will be able to:

- Demonstrate an understanding of how to prepare medicines for injection safely.
- Know how to add a drug to a volume of fluid to make up the correct concentration for injection
- Understand the theory behind parenteral administration of drugs
- Understand the sources of potential error when making up drugs for parenteral administration
- Understand and know the safety checks required when performing this task
- Know how to document this procedure on the patient's drug chart and medical records

General points of importance:

- Drugs MUST NOT be added to containers of, or given by bolus injections into, lines containing blood, blood products, mannitol, amino acids solutions or sodium bicarbonate solutions
- Infusions MUST NOT be run concurrently with blood or blood products via the same iv access
- The compatibility of infusion and drug must be established
- Drugs must not be added to any infusion bag already in use

a. Making up Drugs for Parenteral Administration: Assessment Performance Criteria

- i. Check identity
- ii. Check prescription chart
- iii. Check drug data sheet to establish diluent, diluent volume, total resulting volume, concentration of resulting volume, expiry time post reconstitution
- iv. Check drug and diluent expiry date
- v. Attach a green or blue needle to 20ml syringe
- vi. Draw up required volume
- vii. Expel air from syringe
- viii. Remove top from drug and clean with street
- ix. Inject the diluent into the drug bottle whilst making circular movements
- x. Invert the bottle and release the pressure to fill the syringe with the diluted drug
- xi. Aspirate the remaining drug out of the bottle

- xii. Cap the syringe
- xiii. Dispose of sharps
- xiv. Draw up 10 ml flush
- xv. Wash hands
- xvi. Swab cannula port
- xvii. Expel air from syringe
- xviii. Flush 5 mls of saline into cannula port
- xix. Connect and slowly inject drug
- xx. Observe patient and patients arm during infusion
- xxi. Flush 5 mls of saline into cannula port
- xxii. Close clamp
- xxiii. Clean port
- xxiv. Sign drug chart
- xxv. Sign date and time drug chart
- xxvi. Thanks patient

To be able to administer a subcutaneous and intramuscular injection

The student will be able to:

- Explain the procedure of subcutaneous and intramuscular injection
- Be able to discuss the benefits and limitations of both subcutaneous and intramuscular injections
- Be able to perform both types of injections with good technique to minimise patient discomfort.
- Understand the importance of checking the drug being administered is the correct drug, correct dose and within date. This should always be double checked with a colleague.

b. Subcutaneous and Intermuscular Injections: Assessment Performance Criteria

- i. Check identity
- ii. Check allergies
- iii. Check prescription chart
- iv. Check drug data sheet to establish diluent, diluent volume, total resulting volume, concentration of resulting volume, expiry time post reconstitution
- v. Check drug and diluent expiry date
- vi. Attach a green or blue needle to 20ml syringe
- vii. Draw up required volumes
- viii. Expel air from syringe
- ix. Remove top from drug and clean with street
- x. Inject the diluent into the drug bottle whilst making circular movements
- xi. Invert the bottle and release the pressure to fill the syringe with the diluted drug
- xii. Aspirate the remaining drug out of the bottle
- xiii. Cap the syringe
- xiv. Dispose of sharps

- xv. Inspect injection site
- xvi. Clean the skin
- xvii. Let it dry
- xviii. Mount the needle on syringe
- xix. Pinch the skin
- xx. Warn the patient
- xxi. Introduce the needle 45 degrees for subcutaneous or 90 degrees for intramuscular
- xxii. Release the pinch
- xxiii. Aspirate
- xxiv. Inject the medicine
- xxv. Remove the needle
- xxvi. Apply pressure with gauze
- xxvii. Dispose of sharp
- xxviii. Sign date and time prescription chart

18. Carry out intravenous cannulation

To be able to establish peripheral IV access

The Student will be able to:

- Demonstrate an understanding of when and why it is necessary to establish peripheral IV access
- Demonstrate competence in establishing IV access
- Understand the importance of aseptic technique and be able to implement them
- Know how to secure cannula safely in position and flush through with normal saline, ensuring the 'flush' enters the vein and not the subcutaneous tissues – suggesting misplacement.

a. Peripheral Venous Cannulation: Assessment Performance Criteria

- i. 'WIIPER' - washes hands, introduction of self, identification of patient, patient consent gained, explains procedure, reposition
- ii. Introduces self to patient
- iii. Asks the patient's name and dob
- iv. Washes hands
- v. Explains procedure
- vi. Gains consent
- vii. Use PPE
- viii. Draw up flush
- ix. Flushes connector
- x. Positions arm correctly
- xi. Applies tourniquet
- xii. Selects suitable vein
- xiii. Cleans site

- xiv. Warns sharp scratch
- xv. Inserts IV cannula at 15-30 degrees
- xvi. Observes flashback
- xvii. Withdraws needle keeping sheath still
- xviii. Advances cannula with needle partially withdrawn
- xix. Release tourniquet
- xx. Compresses vein manually
- xxi. Withdraws needle
- xxii. Attaches connector and flushes
- xxiii. Secures with dressing
- xxiv. Places review date sticker
- xxv. Washes hands
- xxvi. Documents procedure

19. Carry out safe and appropriate blood transfusion

To be able to follow the correct procedure to give a transfusion of blood into the vein of a patient.

The student will be able to:

- Demonstrate an understanding of when and why it is necessary to give a blood transfusion
- Demonstrate an understanding of the correct procedures to follow when giving a transfusion of blood, including correct identification of the patient and checking the blood group
- Know how to observe for possible reactions to the blood transfusion, and actions if they occur
- Understand the potential sources of error when performing this task
- Know how to follow a procedural checklist to limit human error when performing this task

a. Blood Transfusion: Assessment Performance Criteria

- i. Check patient identifiers match on all labels
- ii. Wash hands again
- iii. Use PPE
- iv. Check blood product large clots, pack integrity evidence of haemolysis, the label on blood matches the compatibility labels, expiry date
- v. Check patient identifiers the patient - make sure they match with all labels and wrist band
- vi. Check unit number on blood
- vii. Ask colleague to repeat all the checks
- viii. Performs routine vitals
- ix. Check line's expiry date
- x. Set roller ball clamp is closed
- xi. Connect blood to the line
- xii. Primes the line

- xiii. Cleans the port on the cannula
- xiv. Flushes the cannula with 10 ml saline
- xv. Attach the line to the cannula
- xvi. Open roller ball clamp so blood slowly infuses
- xvii. Run at 3-4 hours/ unit
- xviii. Ensure regular vitals are completed - after initial 15 mins and before end of each unit and if patient unstable
- xix. Ensure the date and start time of the transfusion is documented
- xx. Sign and place transfusion label in drug chart
- xxi. File transfusion label and compatibility form is filed in patients notes

20. Carry out male and female urinary catheterisation

To be able to pass a tube into the urinary bladder to permit drainage of urine, in male and female patients.

The student will be able to:

- Explain the procedure of catheterisation to a patient
- Perform catheterisation on both a female and male manikin
- Understand the indications for insertion of a urinary catheter
- Know the potential complications of urinary catheterisation

a. Male Catheterisation: Assessment Performance Criteria

- i. Positions patient correctly
- ii. Uses one hand technique
- iii. Retracts foreskin
- iv. Cleans glans
- v. Creates sterile field
- vi. Injects lubricating gel into meatus
- vii. Peels back wrapper from catheter tip
- viii. Lubricates catheter tip
- ix. Inserts catheter into meatus
- x. Checks urinary flashback
- xi. Advances catheter
- xii. Inflates balloon
- xiii. Checks pain with patient
- xiv. Withdraws catheter until resistance met
- xv. Connects catheter bag
- xvi. Replaces foreskin
- xvii. Removes rest of wrapping
- xviii. Cleans areas and disposes of waste
- xix. Washes hands

xx. Thanks patient

b. Female Catheterisation: Assessment Performance Criteria

- i. Connect drainage bag and catheter
- ii. Positions patient correctly
- iii. Uses one hand technique
- iv. Cleans around external urethral meatus
- v. Creates sterile field
- vi. Injects lubricating gel into meatus
- vii. Peels back wrapper from catheter tip
- viii. Inserts catheter into meatus
- ix. Checks urinary flashback
- x. Advances catheter
- xi. Inflates balloon
- xii. Withdraws catheter until resistance met
- xiii. Removes rest of wrapping
- xiv. Cleans areas and disposes of waste
- xv. Washes hands
- xvi. Thanks patient

21. Carry out wound care and basic wound closure and dressing

Repairing defects in the skin by inserting stitches with use of local anaesthetic

The student will be able to:

- Understand the basic principles of skin suturing
- Demonstrate an understanding of when stitches need to be inserted
- Demonstrate competence in inserting simple stitches to close open wounds
- Demonstrate an understanding of when to remove stitches which are non-dissolvable
- Understand the importance of aseptic technique and choice of needle and suture material.
- Know how to anaesthetise the skin correctly

a. Skin Suturing: Assessment Performance Criteria

- i. Check identity
- ii. Check allergies
- iii. Clean wound
- iv. Considers tetanus prophylaxis
- v. Sterile field
- vi. Local anaesthetic
- vii. Mount the needle

- viii. Pick up edges with forceps
- ix. Insert the needle at a 90 degree angle
- x. Once through skin change position of needle using forceps
- xi. Pick up edges with forceps
- xii. Insert the needle into other skin edge at a 90 degree angle
- xiii. Tie the knot with an instrument knot or hand tie knot
- xiv. Skin edges gently opposed
- xv. Cut the suture to 1cm long
- xvi. Ensure knot is on skin
- xvii. Repeat leaving 5-10mm between sutures
- xviii. Clean the skin
- xix. Apply sterile dressing
- xx. Give patient post procedure instructions
- xxi. Dispose of sharps
- xxii. Washes hands
- xxiii. Thanks patient

Provide basic care of surgical or traumatic wounds and applying dressings appropriately

The student will be able to:

- Demonstrate an understanding of the different types of wound dressings
- Understand the importance of aseptic technique and choice of dressing to be used
- Demonstrate competence in applying simple dressings
- Demonstrate an understanding of when to remove, examine and reapply dressings

b. Wound Care and Basic Wound Dressing: Assessment Performance Criteria

- i. Explain procedure to patient and obtain verbal consent
- ii. Check they have the correct materials to perform the task and are in the correct environment
- iii. Carry out wound inspection and dressing using aseptic technique
- iv. Understand the different types of dressings available and any cautions or contraindications with each one
- v. Understand when the dressing needs to be replaced and wound re checked

22. Carry out nasogastric tube placement

Passing a NG tube via the nose, into the oropharynx and down into the stomach, for either drainage purposes (Ryles NG tube) or feeding purposes via a (fine bore feeding NG tube).

The Student will be able to: NG tube placement

- Discuss the indications for NG tube placement

- Discuss the contraindications for NG tube placement
- Explain the procedure to the patient and get verbal consent
- Demonstrate safety and competence in passing an NG tube
- Discuss the potential complications and how to manage them

a. NG tube placement: Assessment Performance Criteria

- i. 'WIPPER' – washes hands, introduction of self, identification of patient, patient consent gained, explains procedure, reposition
 - Check for any contraindications
 - Personal Protective Equipment – gloves and disposable apron
 - ANTT – cleans tray & gathers all equipment needed. Prepares all equipment
 - Checks expiry dates and excludes contamination of kit
- ii. Washes hands and dons PPE
- iii. Assist patient into a sitting position in the chair or bed, with the tray table in front of them, provide a beaker of water and a drinking straw
- iv. Assess the patency of the nostril space by asking patient to sniff with one nostril closed and then the other. Choose the side that is clear for the patient and/or perform nasal hygiene if required
- v. Prepare the equipment at the bedside, ensuring there are no kinks in the NG tube.
- vi. Estimate the NEX measurement (Nose-Ear-Xiphisternum)
- vii. Before tube placement, explains process to patient, and the sip and swallow technique to aid the tube down (caution – if patient NBM or has swallowing concerns). Have working oxygen and suction available at the bedside
- viii. Lubricate tip of the tube with a small amount of aquagel. Insert tip into patient's clear nostril at a horizontal angle gently advancing slowly. Instruct the patient to sip the water, hold in the mouth and then swallow. Every time the patient swallows, the tube is advanced further down the oesophagus, until the NEX measurement mark is seen at the nostril
- ix. Check that the tube is not coiled up in the throat of the mouth by visual inspection with tongue depressor and torch
- x. Affix the tube position using the nose tape/dressing
- xi. Aspirate 5-10mls of gastric contents via the tube and check the pH using NG
- xii. CE marked pH indicator strips. A reading of pH 5 or below confirms gastric
- xiii. aspirate
- xiv. If the patient has a feeding tube, discuss why an X-ray is needed prior to
- xv. any feeding commencing
- xvi. Thanks the patient and ensures they are left comfortable after the
- xvii. procedure. Advise the patient if any concerns with the tube, to ask Nurse
- xviii. for assistance
- xix. Cleans away equipment and dispose into orange waste bag. Doffs PPE
- xx. and washes hands
- xxi. Documents procedure in patients notes including:
 - Consent
 - Chaperone's full name if present

- Rationale for tube placement
- Type/size of tube used and the patients NEX measurement
- Gastric aspirate type, amount and pH recorded
- If drainage tube – document if on free drainage or regular aspiration by nursing staff
- If feeding tube placed, document size/type, Check X-ray request and who should check X-ray (In MKUH ST1 or above are only allowed to confirm feeding tube placement on X-Ray)
- Plan of ongoing care

23. Use local anaesthetics

Using drugs which produce numbness and prevent pain either directly applied to the skin or injected into skin or body tissues

The student will be able to:

- Demonstrate an understanding of the different types of drugs that can be used as a local anaesthetic
- Demonstrate competence in applying topical anaesthetic (eg EMLA cream)
- Demonstrate an understanding of when and how to administer a local anaesthetic

a. Use of Local Anaesthetics: Assessment Performance Criteria

- i. Checks drug and expiry date
- ii. Calculates max dose
- iii. Attaches needle to syringe
- iv. Draws up medication aseptically
- v. Expels air from syringe
- vi. Changes needle
- vii. Warns about sharp scratch
- viii. Inserts needle at appropriate angle (parallel to skin for superficial or bleb and advance for deep)
- ix. Aspirates
- x. Infiltrates tissue in correct plane (deep or superficial)
- xi. Washes hands
- xii. Thanks patient

24. Advising Patient on how to collect a Mid-Stream Urine Specimen

To advise a patient on how to collect a mid-stream urine specimen

The student will be able to:

- Explain to a patient how to collect a mid-stream urine specimen
- Obtain a sample of urine from a patient, usually to check for the presence of infection,

- using a method which reduces the risk of contamination by skin bacteria
- Understand the importance of ensuring urine specimens are collected in a standard way to minimise contamination
 - Be able to discuss the causes of false positive and false negative results of urine cultures
 - Understand when urine culture is useful or necessary

a. Urine MSU: Assessment Performance Criteria

- i. Advise the patient to wash their hands
- ii. Supply the patient with a wide-mouthed sterile container
- iii. In men, advise them to retract the foreskin and clean the skin around the urethra with water
- iv. In women, advise them to hold open the labia and clean with water in a downwards motion, front to back. Continue to hold the labia open if possible
- v. Tell the patient to pass some urine into the toilet
- vi. Then, without stopping the flow of urine, catch some urine in the sterile container. 8. Finish off by passing the rest of the urine into the toilet
- vii. Advise the patient to wash their hands afterwards
- viii. Once you have been provided with the specimen by the patient, transfer it to a sterile universal container
- ix. Perform urinalysis if indicated and ensure the cap is screwed on tightly
- x. Dispose of the rest of the urine appropriately
- xi. Wash your hands
- xii. Label the sample and send to the laboratory immediately
- xiii. Explain to the patient when the results will be available

Other Therapeutic Procedures Covered

25. Pregnancy Testing

To be able to perform a test of the urine to detect hormones which indicate that the patient is pregnant.

The student will be able to:

- Know how to perform a pregnancy test using a sample of the patient's urine
- Demonstrate an understanding of what the test is measuring
- Demonstrate competence in performing this test
- Be able to interpret and record the result in the patient's records
- Understand the importance of ensuring the kit is in date.

a. Pregnancy Testing: Assessment Performance Criteria

- i. Checks name on sample
- ii. No contamination of specimen
- iii. No contamination of dipstick

- iv. checks expiry date
- v. Covers dipstick with specimen completely / or fills well of preg test with 3 drops of urine
- vi. Places dipstick on paper towel in tray
- vii. Allows time for reagents to work (2 minutes) – explains timings
- viii. Careful disposal of dipstick
- ix. Disposes of PPE and washes hands
- x. Identifies urine results correctly

26. Dosage and Administration of Insulin and use of sliding scales

To be able to prescribe insulin safely in different settings

The student will be able to:

- Explain the indications for an insulin prescription
- Be able to prescribe insulin safely
- Understand common drug errors in insulin prescribing
- Be able to prescribe, set up, monitor, adjust and discontinue an insulin infusion safely
- Understand the possible complications of insulin treatment including hypoglycaemia and how to manage this safely

a. Dosage and Administration of Insulin and Use of Sliding Scales: Assessment Performance Criteria

- i. Check identity
- ii. Check allergies
- iii. Check indication for insulin
- iv. Correct cannulation and use of fluids
- v. Correct choice of insulin regime
 1. VRIII variable intravenous insulin infusion is Humulin S and comes in a pre-filled syringe and needs hourly CBG.
 2. Fixed rate Iv insulin is used for DKA to stop ketosis and is based on the patients weight at 0.1unit/kg/hr and is used for 24 hours until the bicarb has normalised and they are ketone free for at least 4 hours. Hourly CBG and blood ketones, plus regular blood gases/bicarb and pH
 3. If patients are on Levemir/Detemir, Lantus/Glargine, or Tresiba/Degludec they should be continued alongside due to their slow action particularly when taking Iv insulin down it needs to have a 4-5 hour overlap before taking Iv insulin down, which is why we encourage it to run alongside
- vi. Monitoring as per regime
- vii. Documentation within the prescription chart

General Procedures

27 Giving information about the procedure, obtaining and recording consent and ensuring appropriate aftercare

Making sure that the patient is fully informed, agrees to the procedure being performed, and is cared for and watched appropriately after the procedure

The student will be able to:

- Demonstrate an understanding of how to inform the patient of the reason for the procedure being undertaken
- Know how to explain the potential risks of the procedure to the patient in an understandable way
- Demonstrate an understanding of the legal requirements when obtaining consent and how to fill in a consent form correctly
- Be able to document the consent process properly and file correctly in the notes

a. Giving Information about the Procedure, Obtaining and Recording Consent and Ensuring Appropriate Aftercare: Assessment Performance Criteria

- i. Approach to the patient
- ii. Inform patient of procedure
- iii. Inform patient of benefits
- iv. Informs patients of the risks
- v. Check patients understanding
- vi. Checks patient can retain information
- vii. Checks patient can communicate information
- viii. Thanks patients
- ix. Documents consent

28 Infection control in relation to procedures

To be able to take all steps necessary to prevent the spread of infection before, during or after the procedure

The student will be able to:

- Demonstrate an understanding of what steps to take to prevent the spread of infection before during and after a procedure
- Know the potential consequences of iatrogenic infections

a. Infection Control in Relation to Procedures: Assessment Performance Criteria

This will be assessed by compulsory attendance at trust induction and incidentally as part of the assessment of the other CAPs.

29. Safe disposal of clinical waste, needles and other 'sharps'

To be able to take all necessary steps to ensure that sharps are handled carefully and placed in a suitable container for disposal

The student will be able to:

- Demonstrate an understanding of what steps to take to prevent needle stick injuries by safe disposal of needles and other 'sharps'
- Know how to dispose of clinical waste in the appropriate receptacle
- Understand the basic principles of safe disposal of clinical waste
- Understand the importance of avoidance of needle stick injuries to oneself and colleagues

a. Infection Control in Relation to Procedures: Assessment Performance Criteria

This will be assessed by compulsory attendance at trust induction and incidentally as part of the assessment of the other CAPs.

Responsibilities

Medical schools must provide an education that allows newly qualified doctors to meet all the outcomes, including the practical skills and procedures specified in this list, and therefore to be fit to practise safely as a doctor when they graduate.

Local education providers, working with medical schools, must provide and quality manage clinical placements and learning opportunities that give medical students the opportunities to build knowledge, skills and practical experience to meet the outcomes and to safely and effectively carry out the practical skills and procedures by the time they qualify.

Medical students are responsible for their own learning. They should refer to the outcomes and the practical skills and procedures specified in the GMC list during their undergraduate education to understand what the GMC expect them to be able to know and do by the time they graduate

Document Control

Date policy approved: February 2023

Date of policy review approval: November 2022

Date of next policy review: Academic year 2023/24