Name: _____

Student Number: _____

Date issued: _____

Contact Phone Number: _____

Contact email address: _____

This edition of the UOB Skills logbook was updated by Hannah Chant Undergraduate Clinical Skills Facilitator from Gloucestershire Academy and Dr Tim Porter Clinical Skills Lead for the University of Bristol in July 2019
Thanks to Annette Eason Clinical Skills Trainer Bath Academy and Rosemary Lovell Clinical Skills Trainer BRI for their contributions

This log book is intended as an immediate record of the skills you learn. Please have it with you, alongside your course handbook at all times. When you have been taught, observed, described and competently performed a particular procedure ask an assessor to sign the relevant section . You can use it to learn and revise, as well as indicate those skills that still need to be mastered.

Some of the skills are signed by a "stamp" confirming your attendance, some of which may be annual, or repeated in different trusts. It is up to you to ensure that you have your logbook and it is stamped. When you have completed the log book and feel competent, you should sign the declaration when you are with your professional mentor in Year 5.

You will also see that there is room set aside for you to record alternative ways to perform a particular procedure. You are encouraged to decide and record which is the most reliable way for you in line with best practice. These policies may vary subtly in the NHS Trusts you work in but you will not be marked down in OSCEs on subtle differences e.g. length of time spent cleaning skin prior to cannulation. You may find equipment is different in each hospital, you will need to ask staff how to use it if have not been shown in clinical skills teaching when learning how to perform the procedure.

Course handbooks. This CAPS log book is not intended to replace or overwrite the handbook for each unit in the curriculum. These will have more detail and usually lay out the specific aims and objectives for that unit. Please note the following:

- There will be some overlap. This is unavoidable.
- Competencies expected for a specific course will also count towards the generic CAPS skills sign off. (e.g. Passing the ILS course signs off the airway section of oxygen administration).
- Assessment requirements such as stations in an Objective Structured Clinical Examination (OSCE) may also count.

You will be required to keep your log book up to date. This means that you must take it with you to all clinical skills teaching and keep a record of experience to discuss your development of the practical skills and procedures with your tutor or professional mentor. This is part of your new way of life as a professional and will be regarded as such by the medical school. Complete honesty and accuracy is expected. Misleading or false claims of competency will be dealt with under the GMC's fitness to practise procedures.

There are a set amount of assessments requiring signatures in each year but this should not stop you performing the skills regularly throughout each year to maintain your ability to perform the skills safely. Please record additional experience in the blank sections.

Introduction

Today's medical student becomes tomorrow's doctor. Our profession is changing continually. New facts are emerging, new diseases appearing. The healthcare environment is a complex place in which to learn. Greater specialisation and fragmentation of services means that it is more difficult to gain a broad and general experience. Now competency is closely regulated. Patients expect a doctor assessing and treating them to know what they are doing. This also means that the setting for healthcare training and clinical practice is more critical.

Learning clinical skills is a vital part of medical training. It is the "hands on" part of practice. The old saying "see one, do one, teach one" is of a bygone era. We also have different temperaments and ways of learning. It is not unusual to find that someone who is academically very able finds the hands-on work challenging. The converse is also true.

Medical education is expected to produce a professional and rounded doctor, who has embarked on a career of lifelong learning.

The skills required.

To help define this, in 2009 the GMC produced a profile of this ideal. Doctors are to have 3 inter-related identities:

- Doctor as scholar and scientist
- Doctor as practitioner
- Doctor as professional.

These identities sit within the curriculum and assessment structure, the CAPS log book skills is part of this assessment structure and will be reviewed each year.

The learning of skills is necessary to become a **practitioner**. However, the doctor as **scientist** seeks to understand the rationale behind a skill, and what it means or does. The doctor as **professional** will keep these skills honed and in use, doing the necessary practice. If asked to perform a skill that has become unfamiliar, then the professional will ask for someone of more experience, and at the first opportunity revise that skill. This process is both non-hierarchical and inter-professional. What counts is experience and not rank. It is not uncommon for example for a consultant to ask their trainee to help in certain procedures that were once routine to them. Now teams work in an inter-professional way, and nurses, physiotherapists or other colleagues often have more experience in certain areas. **As a medical student you will be assessed by them as well.**

Please remember it is your responsibility to complete this log book, You will not be able to complete and pass year 5 with out it completed

In 2009 the GMC defined **32 core skills;** this has since been updated in 2019 with expected Practical Skills and Procedures in Outcomes for Graduates. There are now **23** skills expected of a newly qualified doctor, these have been divided into five areas of practice
Assessment of Patient Needs, Diagnostic Procedures, Patient Care, Prescribing and Therapeutic Procedures. The skills numbered 1-23 in this log book are as required by the GMC

At the back of the log book you will see Bristol 1 and Bristol 2 which is a skill the university has added to help guide your learning and experience.

Assessment of Patient Needs
1. Take baseline physiological observations and record appropriately.
2. Carry out peak expiratory flow respiratory function test.
3. Perform Direct Ophthalmoscopy
4. Perform Otoscopy.

Diagnostic Procedures
5. Take blood cultures.
6. Carry out arterial blood gas and acid base sampling from the radial artery.
7. Carry out venepuncture.
8. Measure capillary blood glucose.
9. Carry out a urine multi dipstick test.
10. Carry out a 3-and 12-lead Electrocardiogram.
11. Take and/or instruct patients how to take a swab.

Patient care
12. Perform surgical scrubbing up.
13. Set up and Infusion
14. Use correct techniques for moving and handling, including patients who are frail.

Prescribing
15. Instruct patients in the use of devices for inhaled medication.
16. Prescribe and administer oxygen. (also in record of ILS Completed in year 5-Bristol 2)
17. Prepare and administer injectable (intramuscular, subcutaneous, intravenous) drugs

Therapeutic Procedures
18. Carry out intravenous cannulation
19. Carry out safe and appropriate blood transfusion
20. Carry out male and female urinary catheterisation
21. Carry out wound care and basic wound closure and dressing
22. Carry out naso gastric tube placement
23. Use local anaesthetics

Bristol Competencies
1. Ankle brachial pressure Index
2. Management of the airway (ILS)

Some of these skills are generic, and others are taught in specific parts of the course. In addition some skills require regular practice (such as manual blood pressure measurement or airway care).
You will have been taught the practical theory in Years 1 and 2 and had some experience performing some skills during your HCA days.

It is during the later years that you will learn, **practise** and so develop as a practitioner. This coincides with your transition from university (class room and protected) to longer periods in the NHS (clinical arena, learning from patients during assessment and delivery of care, and less protected) based teaching. We will guide you in this transition. You will need to become more self-directed, and seek out learning, you can then add reflection on these experiences on My Progress to discuss with your tutor or Professional Mentor. In a busy clinical area you need to learn how to get involved, and learn skills in a supervised way. Remember that experienced and busy clinicians also had to learn at one time. So do not be afraid to ask. Your tutor or Professional Mentor may be able to help here if you find it difficult. Mention it in your meeting with them.

How these skills are learnt.

These skills vary in complexity. Some are very basic and often done by patients themselves. Nevertheless, they must all be done to an adequate standard of competence. The GMC has set levels of competence expected of a newly qualified doctor.

Competence

There are three levels of competence and these will be referred as follows.

1) **Safe to practise in simulation:** You will be safe to practise in a simulated setting and ready to move to direct supervision. This means you will not perform the procedure on a real patient during medical school but on simulated patient or manikin. It is expected that you will have some knowledge and skill in the procedure but will require direct supervision when performing the procedure on patients.
2) **Safe to practise under direct supervision:** You will be ready to perform the procedure on a patient under direct supervision. You will have gained experience performing the skills under direct supervision on patients during medical school. This means you have had a supervisor observing your practice whilst performing the procedure. As a newly qualified doctor your experience and skill should be become sufficient to allow you to perform the procedure safely under indirect supervision.
3) **Safe to practise under indirect supervision:** You will be able to perform the procedure on a patient under indirect supervision. You will have performed the procedure on patients during medical school under direct supervision at first and gained experience in order to perform the procedure safely with indirect supervision. Indirect supervision is when a newly qualified doctor is able to access support to perform the procedure if they need to-for example asking a colleague for help. An example of this may be when assessing for a suitable vein for IV access and you need help from vascular access expert.

You must reach the level of competency required for each skill by the end of year 5

There is now increasing use of artificial environments in training, prior to handling patients. For example, there are models for cannulation, catheterisation and airway care.

Simulation models of more complex scenarios, giving you a chance to practise and integrate skills in “real time” are being developed. These, and the use of actors instead of patients, can sometimes give an air of unreality. Do not let this distract you. Use your imagination to take you into the clinical environment and be yourself. Experienced teachers can help here.

As you progress into the clinical working environment, you are required to learn in new ways. There is value in simply being present, observing and asking questions. Remember a good practitioner has always learnt by watching others, and in turn is glad to pass on their professional expertise. **If you haven’t learned how to do a particular skill on which you may be assessed on please seek out the opportunities to learn that skill. Find out who does that procedure in the clinical environment in which you are working and ask if you can observe them. You are expected to perform the skills to the levels listed in the content pages of each skill.**

Video tutorials are available on Hippocrates/Blackboard for some skills. These are continually being updated, so keep an eye on these websites.

The CAPS tutors recognise that there is often more than one way to do something. This is valid. When you see this, be critical, ask why, seek the evidence and evaluate the alternatives. You can record this process and your conclusions as below.

Reflection

You have already completed reflective logs on My Progress so you should now be used to this as a method of learning.
This is a disciplined and deliberate process of thinking that critically evaluates situations that you experience, in a way that encourages learning and changes in practice. It is essential that you engage with reflective practice as a medical student as you will be expected to continue reflective practice as a postgraduate doctor.

There are sections on each competency page for you to make notes on as you experience or learn a skill. You can then use these notes to help you write a reflective log on my progress.

What you need to know and do

- Identify the level of experience/competence of skills learnt in years 1 and 2 and discuss with your tutor or Professional Mentor at in your meetings.
- Write a reflective log on my progress to summarise what skills you have learnt in years 1 and 2. Decide if you need to revisit any of the skills at the start of year 3. Do the same at the start of year 4 and 5.
- Take your log book to each midpoint and end point review with Tutors during Academy placements.
- Take it with you to clinical skills teaching and clinical areas.
- Use the contents to guide your practice and help with exam preparation such as OSCEs.
- After each unit completed check you have recorded any skills teaching and development, ensuring you have obtained the relevant signatures.
- At each meeting with your Professional Mentor discuss your progress with the log book and record this in the meeting notes on My Progress.
- Each Academy will have different resources, and opportunities may vary. If you are unsure how to gain experience with a skill discuss with your Academy tutors.
- This assessment log book must be kept safe and be completed by the end of March in Year 5.
- At the end of year 5 sign each competency declaration

Do not perform any of the skills on patients until you have been taught how to perform each skill safely as per policy and practice guidelines

The following pages will help you keep track of any assessment of skills completed. You may gain experience at any point but please refer to the Training and Assessment sections on the skills pages for information on when you will have the opportunity to learn each skill. Please review your skills log book during the last meeting at the end of each year with your professional mentor

GMC Skill	Assessment of patient needs	Evidence of skill development and competency	Page number
1a,1b,1c,1d,1e Take Baseline physiological observations and record appropriately	Measure temperature, Pulse rate, respiratory rate, Blood pressure, oxygen saturations and urine output	Year 1 and 2 ☐ Year 3 ☐ Year 4 ☐ Year 5 ☐	14-23
2 Carry out peak expiratory flow respiratory function test	Explain how to perform a peak expiratory flow	Year 1 and 2 ☐ Year 3 ☐ Year 4 ☐ Year 5 ☐	24-25
3 Perform direct ophthalmoscopy	Perform basic ophthalmoscopy and identify common abnormalities	Year 3 ☐ Year 4 ☐ Year 5 ☐	26-27
4 Perform otoscopy	Perform basic otoscopy and identify common abnormalities	Year 3 ☐ Year 4 ☐ Year 5 ☐	28-29

GMC Skill	Diagnostic Procedures	Evidence of skill development and competency	Page number
5 Take Blood Cultures	Take samples of venous blood to test for the growth of infectious organisms	Year 3 ☐ Year 4 ☐ Year 5 ☐	30-31
6 Carry out arterial blood gas and acid base sampling from a radial artery in adults	Insert a needle into a patient's radial artery(wrist) to take a sample of arterial blood and interpret the results	Year 3 ☐ Year 4 ☐ Year 5 ☐	32-33
7 Carry out venepuncture	Insert a needle into a patient's vein to take a sample of blood for testing, in the correct order, labelled correctly and sent to the laboratory promptly	Year 3 ☐ ☐ ☐ Year 4 ☐ ☐ ☐ Year 5 ☐ ☐ ☐	34-35
8 Measure capillary blood glucose	Measure concentration of glucose in the patient's blood at the bedside	Year 3 ☐ Year 4 ☐ Year 5 ☐	36-37
9a and 9b Carry out a urine multi dipstick	Explain how to collect a midstream urine sample. Test a sample of urine to detect abnormalities	Year 3 ☐ ☐ Year 4 ☐ Year 5 ☐	38-41
10a and 10b Carry out a 3 and 12 lead Electrocardiogram	Set up a continuous recording of the electrical activity of the heart	Year 3 ☐ Year 4 ☐ Year 5 ☐	42-45
11 Take and/or instruct patients how to take a swab	Use the correct technique to apply sterile swabs to the nose, throat, skin and wounds. Make sure that samples are labelled and placed in containers and sent to laboratory promptly	Year 3 ☐ Year 4 ☐ Year 5 ☐	46-47

GMC Skill	Patient Care	Evidence of skill development and competency	Page number
12a and 12b Perform surgical scrubbing up	Follow approved processes for cleaning hands and wearing appropriate personal protective equipment before procedures or surgical operations.	Year 3 ☐ Year 4 ☐ Year 5 ☐	48-51
13 Set up an infusion	Set up and run through an intravenous infusion. Have an awareness of different equipment.	Year 3 ☐ Year 4 ☐ Year 5 ☐	52-53
14 Use correct techniques for moving and handling including patients who are frail	Use, or direct 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.	Year 1 and 2 ☐ Year 3 ☐ Year 4 ☐ Year 5 ☐	54-55

GMC Skill	Prescribing	Evidence of skill development and competency	Page number
15 Instruct patients in the use of devices for inhaled medication	Explain to a patient how to use an inhaler correctly, including spacers, and check that their technique is correct	Year 3 ☐ Year 4 ☐ Year 5 ☐	56-57
16 Prescribe and administer oxygen	Prescribe and administer oxygen safely using a delivery method appropriate for the patient's needs and monitor and adjust oxygen as needed	Year 3 ☐ Year 4 ☐ Year 5 ☐ ☐	58-59

17a and 17b Prepare and administer injectable(intramuscular, subcutaneous, intravenous) drugs	Prepare and administer injectable drugs and prefilled syringes	Year 3 ☐ Year 4 ☐ Year 5 ☐	60-63
GMC Skill	**Therapeutic procedures**	**Evidence of skill development and competency**	**Page number**
18 Carry out intravenous cannulation	Insert a cannula into a patient's vein and apply an appropriate dressing	Year 3 ☐ ☐ Year 4 ☐ ☐ Year 5 ☐ ☐	64-65
19 Carry out safe and appropriate blood transfusion	Following the correct procedures, give a transfusion of blood(including correct identification of the patient and checking blood groups).Observe the patient for possible reactions to the transfusion and take action	Year 3 ☐ Year 4 ☐ Year 5 ☐	66-67
20 Carry out male and female urinary catherisation	Insert a urethral catheter in both male and female patients	Year 3 ☐ Year 4 ☐ Year 5 ☐	68-70
21a and 21b Carry out wound care and basic wound closure and dressing	Provide basic care of surgical or traumatic wounds and apply dressings appropriately	Year 3 ☐ Year 4 ☐ Year 5 ☐	72-75
22	Pass a tube into the	Year 3 ☐	

Carry out Nasogastric Tube placement	stomach through the nose and throat for feeding and administering drugs or draining the stomach's contents. Know how to ensure correct placement	Year 4 ☐ Year 5 ☐ E-learning completed ☐	76-77
23 Use local anaesthetics	Inject or topically apply a local anaesthetic. Understand maximum doses of local anaesthetic agents	Year 3 ☐ Year 4 ☐ Year 5 ☐	78-79
Bristol 1 Ankle Brachial Pressure Index	Use a hand-held doppler to detect peripheral arterial disease	Year 3 ☐ Year 5 ☐	80-81
Bristol 2 Management of the Airway	Manage a patient's airway- an important life saving action	Year 5 ☐	82-83

Assessment of Clinical Skills in OSCEs

The following skills may be assessed in the OSCEs at the end of year 3 and 4

It is your responsibility to ensure that you are prepared for an assessment in any of these skills at the end of year 3 and 4. Each skill is mapped to the curriculum opportunities on each competency page. Please take the time to read check the training opportunities section at the start of each unit. If you miss any of these opportunities it is essential that you establish alternative learning opportunities and ensure you have sufficient time to learn, practice and be prepared for assessments in these skills.

Potential Clinical Skills assessed during OSCEs

- Measuring temperature- Year 3 or 4
- Measuring a pulse- Year 3 or 4
- Measuring blood pressure- Year 3 or 4
- Measuring oxygen saturation- Year 3 or 4
- Venepuncture- Year 3 or 4
- Managing blood samples correctly- Year 3 or 4
- Taking blood cultures- Year 4
- Measuring blood glucose- Year 3 or 4
- Performing and Interpreting a 12 lead ECG- Year 3 or 4
- Basic Respiratory Function Tests Year 3 or 4
- Urinalysis- Year 3 or 4
- Advising Patients on how to collect an MSU- Year 3 or 4
- Taking nose, throat and skin swabs- Year 3 or 4
- Administering oxygen- Year 3 or 4
- Setting up an infusion- Year 4
- Instructing patients how to use devices for inhaled medication- Year 3 or 4
- Making up drugs for IV administration- Year 4
- Hand washing and scrubbing up-Year 3 or 4
- Safe disposal of clinical waste-Year 3 or 4
- Examination of the ears and functional testing of hearing-Year 3 or 4
- Intramuscular and subcutaneous Injections-Year 3 or 4

Assessment of Competence for Medical Students

1a. Assessment of patient needs: Measuring Temperature

Aim: To measure a patient's temperature safely and accurately

Objectives: The student will be able to:

- Demonstrate an understanding of when and why it is necessary to measure a patient's temperature
- Demonstrate competence in measuring temperature with an ear thermometer,
- Interpreting and responding appropriately to the result
- Demonstrate how to record the patient's temperature on the NEWS chart
- Know the different techniques for adults and children.

Training/Opportunities for experience:

- HCA Days (year 1)
- Effective consulting clerkship (Year 2)
- Pathway A and B (Year3)
- Care of the elderly, RHCN, Child Health (year 4)
- Medicine and Surgery, Acute and Critical care, Primary and community care (year 5)

Risk Assessment: LOW

Assessment:

- A GP, trained nurse, clinical teaching fellow or hospital doctor will assess basic competence during years 2,3 or 4 using the checklist on the reverse of this page
- This skill may also be tested during one of the OSCEs in year 3 or 4
- Complete and obtain signatures for each year recorded overleaf

Underpinning Knowledge

It is expected that the student will

- Understand the theory behind each type of thermometer that is used in clinical settings
- Understand the sources of error when using each type of thermometer
- Know the reference range for the temperature of adults and children
- Understand the significance of a low or high temperature
- Know how to document temperature on a patient's notes/chart

Clinical Skill: Measuring a temperature(tympanic)
Performance Criteria: The student will:
1. Explain procedure and obtain consent
2. Wash hands
3. Ensure that patient is comfortable
4. Ensure that the equipment is clean, safe to use and has been serviced by medical engineering
5. Place the probe cover on from base unit
6. Place the probe gently into the ear and press the button to record the patient's temperature
7. After a few beeps remove the probe from the patients ear
8. Press the release button to remove the probe cover and dispose of in the correct waste bin
9. Note the temperature, record in the notes and respond appropriately according to the result
10. Clean thermometer handset as required and ensure the thermometer is placed back in the base unit

Date	Competent (yes/no)	Signature	Print Name and Designation	Reviewed progress with tutor or professional mentor
Year 1				
Year 2				
Year 3				
Year 4				
Year 5				

Assessors comments

Student's learning points including alternative techniques

Year 5 Declaration

I confirm that I have had theoretical and practical instruction on how to measure a patient's temperature and I am safe to Practise under indirect supervision

Signed: Date

Tutor comments

Assessment of Competence for Medical Students

1b. Assessment of patient needs: Measuring Pulse Rate, Rhythm and Respiratory Rate

Aim: To measure a patient's pulse rate and rhythm
To measure respiratory rate

Objectives: The student will be able to:

- Demonstrate an understanding of when and why it is necessary to measure a patient's pulse
- Demonstrate competence in measuring the radial pulse and deciding whether it is regular or not.
  Demonstrate an understanding of when and why it is necessary to measure respiratory rate
  Demonstrate competence and awareness of any abnormalities

Training/Opportunities for experience:

- HCA Days (year 1)
- Effective consulting clerkship (Year 2)
- Pathway A and B (Year3)
- Care of the elderly, RHCN, Child Health (year 4)
- Medicine and Surgery, Acute and Critical care, Primary and community care (year 5)

Risk Assessment: LOW

Assessment:

- A GP, trained nurse, clinical teaching fellow or hospital doctor will assess basic competence during years 3-5 using the checklist on the reverse of this page
- This skill may also be tested during one of the OSCEs in year 3 or 4
- Complete and obtain signatures for each year recorded overleaf

Underpinning Knowledge
It is expected that the student will
• Understand sufficient anatomy of the wrist in order to be able to identify the radial pulse • Understand the physiological processes that govern the heart rate and rhythm • Know the reference range for the pulse rate in patients of different ages • Understand the significance of a slow or rapid pulse and respiratory rate • Recognise a normal pulse and normal respiratory rate • Understand the causes of an irregular pulse and irregular respiratory rate • Know how to document a patient's pulse and respiratory rate on a NEWS chart • Know the difference between peripheral and central pulses

Clinical Skill: Measuring Radial Pulse
Performance Criteria: The student will:
1. Explain procedure and obtain consent
2. Wash hands
3. Ensure that patient is comfortable and rested, with arm supported
4. Ensure that site of radial pulse is exposed
5. Position fingers (2 or 3) correctly over radial pulse
6. Use pads of fingers to assess rate and rhythm of pulse over at least 15 seconds (one minute if irregular). This time must be recorded accurately.
7. Calculate rate, expressed as beats per minute
8. Describe rhythm of pulse
9. Explain findings and their significance to patient
10. Record pulse correctly in notes
11. Decide if further examination/action is necessary

Clinical Skill: Measuring Respiratory Rate (it may be useful to do this whilst taking a pulse and or Oxygen saturations)
Performance Criteria: The student will:
1. Explain procedure and obtain consent
2. Wash hands
3. Ensure that patient is comfortable and is a rest
4. Remove bed covers from the patient's upper body to facilitate counting
5. Position themselves at the patient's bedside
6. Count each time the chest rises for a full minute making note of depth, symmetry and pattern of breathing
7. Observe patient's lips for signs of cyanosis
8. Record on the News chart
9. Note any abnormalities and respond as needed
10. Explain findings and their significance to patient
11. Record correctly in notes
12. Decide if further examination/action is necessary

Date	**Competent (yes/no)**	**Signature**	**Print Name and Designation**	**Reviewed progress with tutor or professional mentor**
Year 1				
Year 2				
Year 3				
Year 4				
Year 5				

Assessors' Comments:

Student's learning points including alternative techniques:

Year 5 Declaration

I confirm that I have had theoretical and practical instruction on how to measure a patient's pulse and respiratory rate. I am safe to Practise under indirect supervision.

Signed: ..... Date .....

Tutor Comments

1c. Assessment of patient needs: Measuring Blood Pressure

Aim: **To measure blood pressure using manual and automatic electronic devices**

Objectives: The student will be able to:

- Demonstrate an understanding of when and why it is necessary to measure a patient's blood pressure
- Know how to measure cuff size and change cuff according to measurements
- Demonstrate competence in measuring the blood pressure with manual and electronic techniques
- Demonstrate how to record blood pressure on the NEWS chart

Training/Opportunities for experience:

- HCA Days (year 1)
- Effective consulting clerkship (Year 2)
- Pathway A and B (Year3)
- Care of the elderly, RHCN, Child Health (year 4)
- Medicine and Surgery, Acute and Critical care, Primary and community care (year 5)

Risk Assessment: LOW

Assessment:

- A GP, trained nurse, clinical teaching fellow or hospital doctor will assess basic competence during years 2,3 or 4 using the checklist on the reverse of this page
- This skill may also be tested during one of the OSCEs in year 3 or 4
- Complete and obtain signatures for each year recorded overleaf

Underpinning Knowledge

It is expected that the student will

- Understand the physiological processes that govern blood pressure and the difficulties in assessing what is 'normal' for a particular patient
- Discuss the common pitfalls in blood pressure measurement
- Understand the clinical significance and causes of a high or low blood pressure
- Understand sufficient anatomy of the arm in order to be able to identify the brachial pulse
- Understand the principles of blood pressure measurement
- Understand the limitations of different measurement techniques (automatic electronic devises and manual techniques)
- Understand the indications, relevance and technique of performing postural blood pressure measurements.
- Know how to document a patient's blood pressure on a NEWS Chart

Performance Criteria: The student will:
1. Explain procedure and obtain consent
2. Wash hands
3. Ensure that the patient is comfortable and rested, with arm supported at heart level and the arm straight and sufficiently exposed
4. Ensure that the correct sized cuff is being used and apply it to the upper arm with the centre of the cuff over the brachial artery
5. Position fingers correctly to palpate the brachial pulse
6. Inflate the cuff until the pulse is impalpable, noting the pressure on the manometer
7. Deflate the cuff and allow the patient's arm to recover
8. Re-inflate the cuff to a pressure 20mmHg higher than the blood pressure by palpation
9. Place the stethoscope on the brachial artery and ascultate
10. Deflate the cuff by 2-3mmHg per second
11. Listen to and note the point at which you hear the first heart sounds
12. Continue to deflate the cuff and record when the heart sounds disappear
13. Explain findings and their significance to patient

14. Record blood pressure correctly in notes or on NEWS chart accurately
15. Decide if further examination/action is necessary
16. Describe how to perform postural blood pressures
17. Perform a blood pressure recording using an automatic electronic device according to local NHS Policy

Date	Manual or Electronic	Competent (yes/no)	Assessor's Signature	Name and designation	Reviewed progress with tutor or professional mentor
Year 1					
Year 2					
Year 3					
Year 3					
Year 4					
Year 4					
Year 5					

Assessors' Comments:

Student's learning points including alternative techniques:

Year 5 Declaration

I confirm that I have had theoretical and practical instruction on how to measure a patient's blood pressure. I am safe to Practise under indirect supervision

Signed: Date

Tutor comments

Assessment of Competence for Medical Students

1d. Assessment of patient needs: Measuring Oxygen Saturation

Aim: To measure patient's oxygen saturation accurately

Objectives: The student will be able to:

- Demonstrate an understanding of when and why it is necessary to measure a patient's oxygen saturation
- Demonstrate competence in recording a patient's oxygen saturation with a pulse oximeter.
- Understand possible causes of inaccurate readings

Training/Opportunities for experience:

- HCA Days (year 1)
- Effective consulting clerkship (Year 2)
- Pathway A and B (Year3)
- Care of the elderly, RHCN, Child Health (year 4)
- Medicine and Surgery, Acute and Critical care, Primary and community care (year 5)

Risk Assessment: LOW

Assessment:

- A GP, trained nurse, clinical teaching fellow or hospital doctor will assess basic competence during years 2,3 or 4 using the checklist on the reverse of this page
- This skill may also be tested during one of the OSCEs in year 3 or 4
- Complete and obtain signatures for each year recorded overleaf

Underpinning Knowledge

It is expected that the student will

- Understand the basic principles by which a pulse oximeter works.
- Know what checks need to be made of the equipment.
- Know in what circumstances it is necessary or useful to check a patient's oxygen saturation.
- Know the reference range for oxygen saturation.
- Understand the possible explanations for a low reading and know what further action might be needed in these circumstances.
- Know how to document oxygen saturation correctly on a NEWS chart

Performance Criteria: The student will:
1.Explain procedure and obtain consent
2.Wash own hands
3.Ensure that patient is comfortable and rested
4.Ensure that the patients nail on forefinger is clean with any nail polish removed
5.Position the probe correctly on the patient and turn the machine on
6.Correctly read, record the result and calculate the NEWS score
7.Explain findings and their significance to patient
8.Decide if further action is necessary

Date	Competent (yes/no)	Assessor's Signature	Print Name and Designation	Reviewed progress with tutor or professional mentor
Year 1				
Year 2				
Year 3				
Year 4				
Year 5				

Assessors' Comments:

Student's learning points including alternative techniques:

Year 5 Declaration

I confirm that I have had theoretical and practical instruction on how to measure a patient's oxygen saturation. I am safe to Practise under indirect supervision

Signed: Date

Tutor comments

Assessment of Competence for Medical Students

1e. Assessment of patient needs : Measuring Urine output

Aim: To measure patient's urine output

Objectives: The student will be able to:

- Demonstrate an understanding of when and why it is necessary to measure urine output
- Understand the importance of fluid balance
- Assess reasons for reduced or absent urine output
- Develop a management plan based on findings

Training/Opportunities for experience:

- HCA Days (year 1)
- Effective consulting clerkship (Year 2)
- Pathway A and B (Year3)
- Care of the elderly, RHCN, Child Health (year 4)
- Medicine and Surgery, Acute and Critical care, Primary and community care (year 5)

Risk Assessment: LOW

Assessment:

- A GP, trained nurse, clinical teaching fellow or hospital doctor will assess basic competence during years 2,3 or 4 using the checklist on the reverse of this page
- Complete and obtain signatures for each year recorded overleaf

Underpinning Knowledge

It is expected that the student will

- Understand the methods of monitoring urine output.
- Know what checks need to be made of the equipment.
- Know when and how to use hourly urine measurements using a catheter bag
- Know when there is an abnormal urine output and what actions to take.
- Know when it is necessary to measure urine output.
- Know how to record urine output on a fluid balance chart

Performance Criteria: The student will:
1. Review and interpret fluid balance charts
2. Assess patient level of hydration
3.Review patient vital signs in relation to above
4. Identify patients at risk of Acute Kidney Injury
5. know relevant blood tests needed when assessing Kidney function and urine output
6. Follow local protocols for monitoring
7. Know when to perform urinalysis and respond to results
8. Be able to explain to patients the importance of monitoring urine output and how to assist with monitoring
9.Offer management plan based on interpretation and assessment

Date	Competent (yes/no)	Assessor's Signature	Print Name and Designation	Reviewed progress with tutor or professional mentor
Year 1				
Year 2				
Year 3				
Year 4				
Year 5				

Assessors' Comments:

Student's learning points including alternative techniques:

Year 5 Declaration

I confirm that I have had theoretical and practical instruction on how to measure a patient's urine output. I am safe to Practise under indirect supervision

Signed: Date

Tutor comments

Assessment of Competence for Medical Students

2. Assessment of patients' needs: Measuring Peak Flow

Aim: To measure a patient's peak flow safely and interpret results

Objectives: The student will be able to:

- Demonstrate competence in explaining to a patient how to use a standard peak flow meter
- Demonstrate an understanding of the significance of the result.

Training/Opportunities for experience:

- HCA Days (year 1)
- Effective consulting clerkship (Year 2)
- Pathway A and B (Year3)
- Care of the elderly, RHCN, Child Health (year 4)

Medicine and Surgery, Acute and Critical care, Primary and community care (year 5

Risk Assessment: **MEDIUM** (through failure to change mouthpiece)

Assessment:

- A GP, trained nurse, clinical teaching fellow or hospital doctor will assess basic competence during years 2,3 or 4 using the checklist on the reverse of this page
- Complete and obtain signatures for each year recorded overleaf

Underpinning Knowledge

It is expected that the student will

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

Understand the significance of a peak flow reading that is below the expected value.

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

Date	Competent (yes/no)	Assessor's Signature	Print Name and Designation	Reviewed progress with tutor or professional mentor
Year 1				
Year 2				
Year 3				
Year 4				
Year 5				

Assessors' Comments:

Student's learning points including alternative techniques:

Year 5 Declaration

I confirm that I have had theoretical and practical instruction on how to measure a patient's peak flow. I am safe to Practise under indirect supervision

Signed: ..... Date .....

Tutor comments

Assessment of Competence for Medical Students
3.Assessment of patient needs: Direct Ophthalmoscopy

Aim: **To safely use a direct ophthalmoscope and interpret results**

Learning Objectives: The student will be able to:

- To establish familiarity with the direct ophthalmoscope.
- To use the direct ophthalmoscope in a clinically appropriate manner.
- To obtain accurate ocular information using the direct ophthalmoscope.
- To prepare for a direct ophthalmoscopy assessment.

Training/Opportunities for experience:

- Pathway A and B (Year3)
- Ophthalmology week Pathway B
- Year 4 care of the elderly, child health and GP attachments
- Year 5 Primary care

Risk Assessment: **LOW**

Assessment:

- A clinical teaching fellow or hospital doctor will assess basic competence during years 3 or 4 using the checklist on the reverse of this page
- Review progress with tutors or professional mentor
- Complete and obtain signatures for each year
- OSCE year 3/4

Underpinning Knowledge

It is expected that the student will

- Understand the basic principles of direct ophthalmoscopy.
- Understand when to adapt explanation of the procedure according to patient need.
- Know what checks need to be made of the equipment.
- Know in what circumstances it is necessary or useful to perform direct ophthalmoscopy.
- Understand what to observe and check.
- Know how to interpret results of direct ophthalmoscopy.
- Understand the significance of findings

Performance Criteria:

1. Introduce yourself, explain procedure to patient and obtain verbal consent
2. Wash hands
3. Dilation of pupils is preferred for the test, eye drops are given for this, inform the patient these may cause discomfort and blurred vision.
4. Darken room, ask patient to look at the same point as far as possible in the room.
5. Wedge scope against your cheek with hand and then head/hand/scope should move as one unit.
6. Use your right hand & your right eye to look at the patient's right eye, use your left hand & your left eye to look at patient's left eye.
7. Look through the ophthalmoscope, if you are near sighted and have taken off your glasses, adjust the focusing wheel towards the negative/red until what you see at a distance is in focus.
8. Using a large diameter aperture and looking around the side of the ophthalmoscope examine the external features of the eye. This includes lashes, lid margins, palpebral conjunctiva and the sclera. Also observe the colour of the iris and the size and regularity of the pupil.
9. Dial up a +10DS lens in the lens wheel and observe the eye from 10cm. Study the red reflex in particular as this provides an excellent way to detect any opacity of the media. Any dark patches or irregularity of the normal uniform red reflex denotes opacity of the cornea, anterior chamber or the vitreous.
   The position of an opacity can be inferred from its parallax with respect to the pupil. Whilst examining the red-reflex, ask the patient to look up or down slightly. If, when the patient looks up the opacity appears to move in the same direction within the red-reflex then it must lie anterior to the pupil plane (i.e. the cornea or the anterior chamber). One that remains stationary must i.e. in the plane of the pupil, and one that moves in the opposite direction to that of the patient's gaze must lie posterior to the pupil plane (i.e. the posterior lens or vitreous). You may find it easier to move yourself slightly from side to side rather than ask your patient to move their eye to achieve the same effect.

During ophthalmoscopy it is advisable to keep both eyes open and suppress the image from the other eye. It may take some practice to accomplish this.

10. Slowly move closer to the patient and at the same time gradually reduce the power of the lens in the wheel and focus on the crystalline lens, the vitreous and finally the fundus. The power of lens necessary to focus on the fundus will depend on any patient and observer uncompensated refractive error and patient or observer accommodation. Once a blood vessel on the fundus has been located then move along it and locate the point at which it branches and move your field of view in the direction in which the apex of the branch is pointing.
11. By moving along a blood vessel in this manner the optic disc will be located. You will need to consider its colour, its margins and the cup if there is one. Also note the presence of any pigment, choroidal or scleral crescents around the disc. Differentiate between a colour cup and a contour cup.
12. Retinal blood vessels should be examined in each quadrant after locating the disc. The veins are relatively large and dark red, whilst the arteries are relatively thin and pale.
13. Return to the disc and move nasally to view along the patient's visual axis. In this position you will obscure the fixation target, cause the pupil to constrict, dazzle the patient and notice some troublesome corneal reflections. These factors make the macula a difficult area to visualise. It may be useful to use a smaller aperture beam. The normal macula is the area between the superior and inferior temporal blood vessel arcades and it's centre is the fovea.
14. Finally ask the patient to look in the eight cardinal directions to allow you to view the peripheral fundus- 'look up' to see the superior periphery and so on. In a young patient with a large pupil you will be able to get as far as the equator of the eye. You will need to adjust the lens in the wheel slightly as the periphery is closer to you than the optic disc requiring more focusing power (plus lens).

Date	Competent (yes/no)	Assessor's Signature	Print Name and Designation	Reviewed progress with tutor or professional mentor
Year 3				
Year 4				
Year 5				
Assessors' Comments: **Student learning points:**				

Year 5 Declaration: I confirm that I have had theoretical and practical instruction on how to use an ophthalmoscope. I am safe to Practise direct ophthalmoscopy under indirect supervision.
Signed: Date:

Assessment of Competence for Medical Students

4: Assessment of patient needs: Clinical Examination of the Ears and functional testing of Hearing

Aim: To examine a patient's ears and assess their hearing threshold with a view to making an accurate clinical differential diagnosis of any relevant pathology

Objectives: The student will be able to state the indications for examination of the ears.

- Explain the examination stages to a patient.
- Using standard otoscopy equipment:
- Perform an examination of the outer ear and the ear canal
- Perform an examination of the ear drum
- Assess the middle ear for the presence of air or fluid

Training/Opportunities for experience:

- Pathway A GP and Pathway B ENT (Year3)
- Care of the elderly, RHCN, Child Health (year 4)

Medicine and Surgery, Acute and Critical care, Primary and community care (year 5

- Use a whisper test to assess the level of hearing in each ear separately
- Use a tuning fork to assess if any loss of hearing is conductive or sensorineural in origin
- Describe the findings in words
- Compile a differential diagnosis

Risk Assessment: **LOW**

Assessment: **Using performance criteria identified x3 on patients**

- Assessment by an ENT Consultant or specialist registrar or by a GP teacher
- This skill is vital for you and your patients and will be an important skill for your medical career in the early years and beyond.
- The more ears you examine the better you get.
- This skill may be assessed in year 3 or 4 OSCEs

Underpinning Knowledge
It is expected that the student will • Describe the anatomy and physiology of the outer, middle and inner ear. • Discuss the common indications for ear examination e.g. Hearing loss, Otalgia, Ear Discharge • Discuss the less common indications for examination of the ear e.g. Facial nerve palsy, Pyrexia of unknown origin, Intra-cranial infection, Vertigo. • Describe the procedural steps for the clinical examination of ears and hearing. • Interpret and classify the different causes of unilateral or bilateral hearing loss. • Describe or classify the different causes of conductive or sensorineural hearing loss. • Manage problems identified or refer appropriately to other health professionals.

Performance Criteria: The practitioner will:	
1.	Identify appropriate indication for undertaking Ear Examination.
2.	Explain the reasons and nature of the procedure, gaining patient consent where possible.
3.	Gather the necessary Otoscope, speculum and tuning fork (512Hz). Wash hands.
4.	Select and fit the largest appropriate speculum, usually with a 4mm opening, for all patients. Turn on the otoscope
5.	Check with the patient if the ears are tender or painful before starting. Ask which is the better hearing ear and examine that side first.
6.	Examine the pinna of the better hearing ear. Concentrate on looking behind the ear too. Note if the external auditory

meatus looks normal in diameter and note the condition of the skin.

7. Examine the deeper parts of the external meatus using the otoscope. Gently lift the pinna upwards and backwards. Your eye will need to be about 2-3 cm from the otoscope window to get a good view.
8. Observe the ear drum. Are there any perforations? Try to look *through* the eardrum. Is there air / pus / mucus / blood in the middle ear?
9. Is the eardrum indrawn or retracted? This usually happens at the very top of the eardrum.
10. Repeat steps 7-10 in the ear with the worst hearing.

a. <u>The following steps (11-13) should be undertaken if there is thought to be a hearing loss</u>

11. Do a **whisper test** in the better hearing ear first. To do this you will need to block the opposite ear with your finger, closing the tragus. Then say clearly a number into the ear you are testing – ask the patient to repeat it to you. Repeat this getting quieter and quieter using different numbers each time. You should say the numbers in a way that the patient cannot lip read you
12. **Weber test**: Take a 512Hz tuning fork. Strike the tuning fork on your own elbow or knee. Place it on the patient's forehead. Apply some counter pressure on the back of the patient's head with your other hand. Ask the patient if they hear it at all and if so "is it louder in the middle or on one side?"
13. **Rinnes test:** Take a 512Hz tuning fork. Strike the tuning fork on your own elbow or knee. Place the tuning fork in front of one ear, then place the tuning fork on the mastoid process behind the same ear and ask if it is heard louder in front of, or behind the ear. Repeat the test on the opposite ear. Rinnes test on a normal ear is heard loudest in front of the ear.
14. **Interpretation**.
    a. **Otoscopy** Outer ear pathology, ear drum disease and most middle ear disease will be seen with the otoscope.
    b. **Tuning forks** A middle ear (or conductive) hearing loss will have a Weber test louder in the worst affected ear and Rinnes test will be louder behind the ear. An inner ear (or sensorineural) hearing loss will have a Weber test louder in the least affected ear and a Rinnes test louder in front of the ear. In a patient with a more severe sensorineural loss either of the tuning fork tests may not be heard at all.
    c. **Whisper test.** If a patient can hear your quietest whisper (approx. 25dB) they have normal hearing. A hearing loss may range from quiet speech (40dB) up to a raised voice (80dB)

Date	Ear and Hearing Examination	Competent (yes/no)	Assessor's Signature	Print name and designation	Reviewed progress with tutor or professional mentor
Year 3					
Year 4					
Year 5					

Assessors' Comments:

Student's learning points including alternative techniques:

Year 5 Declaration

I confirm that I have had theoretical and practical instruction on how to perform examination of the ear and functional testing of hearing. I am safe to Practise otoscopy under indirect supervision.

Signed: ..... Date .....

<u>Tutor comments</u>

Assessment of Competence for Medical Students

5. Diagnostic Procedure: Taking blood cultures

Aim: Taking samples of venous blood to test for the growth of infectious organisms in the blood. Requires special blood containers and laboratory procedures.

Objectives: The student will be able to:

- Demonstrate an understanding of when and why it is necessary to take blood cultures
- Demonstrate an understanding of the correct order of draw
- Demonstrate competence in taking a set of blood cultures using aseptic non-touch technique (ANTT) from a patient taking the necessary steps to avoid needle stick injury, contamination and labelling errors
- Understand the need to check local NHS Policy and Practice for any differences in equipment used
- Be able to interpret blood cultures results phoned back from microbiology.

Training/Opportunities for experience:

- Pathway B (Year3)
- Care of the elderly, (year 4)

Medicine and Surgery, Acute and Critical care, Primary and community care (year 5)

Risk Assessment: MEDIUM

Assessment:

- Clinical Skills Trainer, Clinical teaching fellow, hospital doctor, trained nurse will assess basic competence using the checklist or as per local policy and practice
- This skill may also be assessed in year 4 OSCE
- Minimum requirement – 2 on patients or manikins in year 4 and 5

Underpinning Knowledge

It is expected that the student will

- Understand and identify the clinical indicators for performing a blood culture
- Know the common pitfalls that lead to contamination and false results
- Understand the significance of a positive result that is phoned through to the ward and how to manage this situation
- Know how to perform the test using an aseptic non- touch technique.
- Be able to correctly label the bottles and send to the lab.
- Have watched the Saving lives : Taking Blood cultures – A summary of best practice video or Local NHS e-learning
- Understand how to avoid needlestick injury

Performance Criteria: The student will:
1. Wash hands, collect required equipment and clean procedure tray
2. Introduce yourself, explain procedure to patient, obtain verbal consent, correctly identify and position the patient
3. Wash hands using alcohol foam or gel according to local NHS policy
4. Remove bottle tops without touching the rubber seal and clean for *30 seconds using a chlorhexidine 2%/ Alcohol 70% wipe, allow to air dry. Wash hands.
5. Preparation of equipment and self – check blood culture bottle expiry
6. After applying tourniquet and put gloves on palpate suitable vein, correctly disinfect the skin using a chlorhexidine 2%/ Alcohol 70% wipe, do not re-palpate
7. Perform venepuncture using aseptic non-touch technique, filling bottles in the correct order with 5-10mls of blood
8. Release tourniquet and remove needle activating safety guard and dispose of in sharps bin,
9. Check patient is comfortable, place cotton wool or gauze over site, apply pressure for 1 minute or until patient stops bleeding. Place appropriate dressing over site
10. Remove gloves and wash hands
11. Label bottles at the patient's bedside and ensure samples are sent according to local NHS policy
12. Clear equipment and ensure the procedure tray is wiped clean with a detergent wipe according to local NHS policy

13. Document in patients notes

* The time required to clean the skin may vary according to local policy and practice, this may also change according to evidence and best practice

Date	Competent (yes/no)	Assessor's Signature	Print Name and Designation	Reviewed progress with tutor or professional mentor
Year 3				
Year 4				
Year 5				

Assessors' Comments:

Student's learning points including alternative techniques:

Year 5 Declaration

I confirm that I have had theoretical and practical instruction on how to take a blood culture. I am safe to Practise under direct supervision

Signed: Date

Tutor comments

6: Diagnostic Procedure: Obtaining arterial blood sample for blood gas analysis

Aim: To obtain an arterial blood gas sample with proficiency and to ensure appropriate care of the patient before, during and following the procedure.

Objectives: The student will be able to state the indications for arterial puncture and blood gas analysis.

- Explain the procedure of ABG sampling to a patient.
- Perform ABG sampling using standardised equipment.
- Make sure ABG sample is labelled correctly.
- Knows the procedure for analysis

Perform the procedural steps for obtaining and analysing a blood gas sample in accordance with local trust policy and competency documentation.

Risk Assessment: **HIGH**

Training/Opportunities for experience:

- Clinical Skills Teaching Pathway B (Year 3)
- Pathway B-Emergency care (Year3)
- Care of the elderly (year 4)
- Medicine and Surgery (Year 5)

Risk Assessment: MEDIUM

Assessment:

- Clinical teaching fellow, hospital doctor, specialist trained nurse will assess basic competence using the checklist or as per local policy and practice
- Minimum requirement – 2 on patients or manikins in year 4 and 5

Underpinning Knowledge

It is expected that the student will

- Describe the anatomy and physiology of the various arterial puncture sites.
- Discuss the advantage, disadvantages and contraindications of each puncture site.
- Perform and interpret an Allen's test if undertaking radial arterial puncture, (or assess arterial
- circulation if using a hand-held Doppler.
- Demonstrate procedural steps for obtaining an arterial blood gas sample.
- Demonstrate sample preparation/protection in accordance with Trust policy to ensure safety and accurate/reliable results.
- Interpret and classify selected arterial blood gas result
- Manage problems identified or refer appropriately to other health professionals.
- Summarise the potential complications of arterial puncture and how to minimise and manage them should they arise.

Performance Criteria: The Student will:	
1.	Identify appropriate indication for obtaining an arterial blood gas sample.
2.	Explain the reasons and nature of the procedure, gaining patient consent where possible.
3.	Determine relevant patient allergies (cleansing solutions/local anaesthetic).
4.	At the bedside check patient identity and wash hands
5.	Locate and palpate the radial artery with the middle and index fingers of the non-dominant hand
6.	Select the most appropriate site for arterial puncture, in accordance with Allen's/Doppler test results, contraindications and personal competence. Position patient comfortably
7.	Wash hands and put gloves on, clean site with 70%alcohol 2%chlorhexidine wipe and allow to dry
8.	Prepare blood gas syringe for procedure as required.

9. Maintain asepsis throughout procedure.
10. Immobilise selected artery and inserts 23gauge needle at 30°-90° angle to skin with bevel.
11. Once flashback obtained, hold needle steady and withdraws adequate sample (1.5-2ml)
12. If sample is not obtained take appropriate measures to secure without a second puncture: • Withdraws the needle slowly with gentle traction until sample obtained. • Redirects the needle and re-advances, with the bevel end of the needle remaining beneath the skin.

13. If sample is not obtained take appropriate measures to secure without a second puncture: • Withdraws the needle slowly with gentle traction until sample obtained. • Redirects the needle and re-advances, with the bevel end of the needle remaining beneath the skin.
14. Arterial puncture performed with no more than 2 attempts upon a single artery.
15. Once sample has been obtained, withdraw needle with immediate application of pressure on the site with gauze
16. Expel air bubbles from sample.
17. Remove needle from blood gas syringe, dispose and occlude syringe with protective cap.
18. Ensure maintenance of site pressure for at least 5 minutes, or until bleeding stops.
19. Assess puncture site for evidence of post-procedural complications.
20. Remove gloves and wash hands
21. Prepare and labels sample appropriately for analysis, noting patient details, oxygen concentration, body temperature, date and time of sample.
22. Report post procedural complications that arise and takes appropriate action.
23. Record pertinent data in medical notes.
24. Notify appropriate personnel of results, care implications and any adverse reactions.

Date	**Competent (yes/no)**	**Assessor's Signature**	**Print name and designation**	**Reviewed progress with tutor or Professional mentor**
Year 3				
Year 4				
Year 5				

Assessors' Comments:

Student's learning points including alternative techniques:

Year 5 Declaration

I confirm that I have had theoretical and practical instruction on how to take an arterial blood sample for blood gas analysis. I am safe to Practise under direct supervision

Signed: Date

Tutor comments

Assessment of Competence for Medical Students

7. Diagnostic Procedure: Performing Venepuncture and managing blood samples correctly

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

Objectives: The student will be able to:

- Explain the complete procedure of venepuncture to a patient
- Correctly Identify and prepare a patient and perform venepuncture safely, with minimal discomfort
- Make sure blood samples are placed in the correct containers and labelled correctly. Taking measures to prevent spilling and contamination
- Know the different needle options and when to use them
- Understand the need to check local NHS Policy and Practice for any differences in policy or equipment used

Training/Opportunities for experience:

- Clinical Skills Teaching Pathway A and B (Year 3)
- Pathway A
- Pathway B-Emergency care (Year3)
- Care of the elderly, RHCN (year 4)
- Medicine and Surgery, Acute and Critical Care (Year 5)

Risk Assessment: MEDIUM

Assessment:

- Clinical Skills Trainer, GP, hospital doctor, clinical teaching fellow, phlebotomist or trained nurse will assess basic competence using the checklist on the reverse of this page
- This skill may be assessed during Year 3 and 4 OSCEs
- This skill is vital for you and your patients and will be an important skill for your F1/F2 years and beyond. During your preparing for professional practice attachment in year 5 is an excellent opportunity to gain experience in this skill.
- X3 signed assessments in year 3, 4 and 5 but you should seek opportunities to practice this skill throughout each year

Underpinning Knowledge

It is expected that the student will

- Know how to identify the patient correctly
- Understand the importance of taking blood samples in the correct bottles, correctly labelling them and sending them to the lab. Taking measures to prevent spilling and contamination.
- Understand the equipment options and using needle safe equipment to avoid needle stick injury
- Know how to perform the skill using an aseptic non-touch technique
- Be able to explain what pre-analytical variables are and the potential effect on samples
- Know how to use and dispose of sharps after the procedure

Performance Criteria: The student will:
1. Collect appropriate equipment checking expiry dates and integrity of packaging , Clean procedure tray.
2. Introduce yourself, correctly identify the patient, explain procedure to patient and obtain consent.
3. Discuss previous patient experience and lay patient back if anxious or has fainted previously
4. Wash hands using alcohol foam/gel according to local policy
5. The patient's arm should be resting on a pillow and exposed
6. Apply tourniquet on the patient's upper arm and identify a suitable vein
7. Ask patient to clench fist to increase vein visibility
8. Release tourniquet
9. Wash hands using alcohol foam/gel according to local policy, assemble appropriate equipment
10. Reapply tourniquet

11. Put on gloves and clean area using a circular motion starting over chosen venepuncture site
12. Warn the patient to expect a slight sharp scratch
13. Using the thumb of the non-dominant hand to anchor the skin below the venepuncture site insert the needle at an angle of 15-20 degrees
14. **If using a safety needle with wings and tubing lower the angle once flashback is seen**
15. Slightly advance the needle if needed
16. Attach the bottles in the correct order of draw, according to local NHS policy
17. When enough blood has been taken directly into the blood tubes using the vacutainer method release the tourniquet before removing needle from the vein (ensure the tourniquet is on for a max of 1-2 mins only)
18. *Remove needle, use safety device according to manufacturer instructions to enclose needle and dispose of in a sharps bin
19. Apply a clean cotton wool ball or folded gauze to the puncture site after the needle is withdrawn**. Apply pressure for 1 minute

*** Some safety blood collection needles have a button that withdraws the needle when still in the patient's vein, these are in use in some NHS Trusts. Please check you know how to activate any needle safety device you are using.**

****Always ensure your fingers are away from or above the puncture site when removing the needle to reduce the risk of a needle stick injury**

Date	Competent (yes/no)	Assessor's Signature	Name and Designation	Reviewed progress with tutor or Professional mentor
Year 3 Clinical Skills Teaching				
Year 3				
Year 3				
Year 4				
Year 4				
Year 4				
Year 5				
Year 5				
Year 5				

Assessors' Comments:

Student's learning points including alternative techniques:

Year 5 Declaration

I confirm that I have had theoretical and practical instruction on how to perform venepuncture. I am safe to Practise under indirect supervision

Signed: Date

Tutor comments

Assessment of Competence for Medical Students

8. Diagnostic Procedures: Measuring blood glucose

Aim: To measure the concentration of glucose in the patient's blood at the bedside, using appropriate equipment and interpreting the results.

Objectives: The student will be able to:

- Demonstrate an understanding of when and why it is necessary to measure blood glucose at the bedside
- Demonstrate competence in measuring the concentration of glucose at the bedside and record this in the patient's records
- Be able to interpret the results and know what action to take
- Understand the use of point of care testing and how this is used in NHS settings

Training/Opportunities for experience:

- Clinical Skills Teaching Pathway A (Year 3)
- Opportunities in Pathway B-Emergency care (Year3)
- Care of the elderly, RHCN, child health (year 4)
- Medicine and Surgery, Acute and Critical Care (Year 5)

Risk Assessment: LOW

Assessment:

- A GP, clinical teaching fellow, hospital doctor or trained nurse will assess basic competence using the checklist on the reverse of this page
- This skill may also be assessed in year 3 or 4 OSCEs
- Minimum requirement – 3 measurements on different patients

Underpinning Knowledge

It is expected that the student will

- Understand when and why it is necessary to measure blood glucose at the bedside
- Understand there are different devices and that some are connected to electronic care record systems
- Know the reference range for the normal values of blood glucose in the fasted and non-fasted state
- Understand the significance of a low and high reading and what immediate action to take
- Know how to perform the test and avoid errors

Performance Criteria: The student will:	
1.	Introduce yourself, explain procedure and obtain consent
2.	Check equipment, ensure its clean and safe to use
3.	Wash own hands and ensure patient's hands are also clean (to avoid contamination)
4.	Ensure that patient is comfortable and rested, with hand supported
5.	Use a single use lancet to prick finger (use side of finger tips if possible)
6.	Wait for 2 seconds for drop of blood to appear and then hold down and 'milk' the finger if required
7.	Allow spot of blood onto recording strip and place correctly in bedside device (switched on) and record result
8.	Explain findings and their significance to patient
9.	Decide if further action is necessary

Date	Competent (yes/no)	Assessor's Signature	Print Name and Designation	Reviewed progress with tutor or professional mentor
Year 3				
Year 4				
Year 5				

Assessors' Comments:

Student's learning points including alternative techniques:

Year 5 Declaration

I confirm that I have had theoretical and practical instruction on how to measure a patient's blood glucose at the bedside. I am safe to practise under indirect supervision

Signed: Date

Tutor comments

Assessment of Competence for Medical Students

9a. Diagnostic Procedure: Urinalysis

Aim: To perform urinalysis safely and accurately

Objectives: The student will be able to:

- Demonstrate understanding of the knowledge needed to perform Urinalysis using Multistix
- Demonstrate how to perform a pregnancy test
- Demonstrate competence in performing the procedure

Training/Opportunities for experience:

- Clinical Skills Teaching Pathway B (Year 3)
- Opportunities in Pathway A
- Pathway B-Emergency care (Year3)
- Care of the elderly, RHCN, child health (year 4)
- Medicine and Surgery, Acute and Critical Care (Year 5)

Risk Assessment: LOW

Assessment:

- Clinical Skills Trainer, Clinical Teaching Fellow, GP, hospital doctor or qualified nurse will assess basic competence using the checklist on the reverse of this page
- This skill may be assessed in year 3 or 4 OSCEs

Underpinning Knowledge

It is expected that the student will

- Know what personal protective equipment is needed
- Know what checks should be made before using the Multistix
- Understand when urinalysis useful or necessary
- 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
- Know how to perform a pregnancy test using a sample of the patient's urine
- Understand the importance of ensuring the kit is in date
- Be able to interpret the result and feed this back to the patient and record it in the patient's records

Performance Criteria: The student will:
1. Introduce yourself, explain procedure to patient and obtain consent
2. Prepare equipment
3. Be aware of test limitations if performing a pregnancy test
4. Check that reagent strip has not passed expiry date.
5. Ask patient when urine sample was passed.
6. Put gloves on
7. Observe colour and opacity
8. Remove reagent strip from bottle, replace lid immediately and check that test pads are the correct colour at the start.
9. Dip the reagent strip into the sample of urine, ensuring that all the test pads are covered.
10. Remove reagent strip immediately, as you do so drag the back of the test strip against the sample pot to remove excess urine.
11. Replace lid on urine sample bottle.
12. Hold the stick so the urine does not run into individual test squares, wait the appropriate time before reading each result.
13. Use stopwatch to record time accurately and hold colour key next to the reagent strip*.
14. Decide if urine sample needs to be sent to laboratory or if the patient needs to do a MSU and then dispose of reagent

strip and gloves. Dispose of urine in sluice or return to patient.
15. Wash hands
16. Explain results to patient and decide what further action is necessary.
17. Record results accurately in notes.

***Check that student is not colour blind**

Date	Competent (yes/no)	Assessor's Signature	Print Name and Designation	Reviewed progress with tutor or Professional mentor
Year 3				
Year 3				
Year 4				
Year 5				

Assessors' Comments:

Student's learning points including alternative techniques:

Year 5 Declaration

I confirm that I have had theoretical and practical instruction on how to perform urinalysis. I am safe to practise under indirect supervision

Signed: ..... Date .....

Tutor comments

Assessment of Competence for Medical Students

9b. Diagnostic Procedure: Advising patients on how to collect a mid-stream urine specimen

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

Objectives: 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.

Training/Opportunities for experience:

- Clinical Skills Teaching Pathway B (Year 3)
- Opportunities in Pathway A
- Pathway B-Emergency care (Year3)
- Care of the elderly, RHCN, child health (year 4)
- Medicine and Surgery, Acute and Critical Care (Year 5)

Risk Assessment: LOW

Assessment:

- Clinical Skills Trainer, GP, hospital doctor or trained nurse will assess basic competence using the checklist on the reverse of this page
- This skill may also be assessed in year 3 or 4 OSCEs

Underpinning Knowledge
It is expected that the student will • 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

Performance Criteria: The student will:
1. Introduce yourself, explain procedure to patient and obtain consent.
2. Advise the patient to wash their hands.
3. Supply the patient with a wide-mouthed sterile container.
4. In men, advise them to retract the foreskin and clean the skin around the urethra with water.
5. 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.
6. Tell the patient to pass some urine into the toilet.
7. Then, without stopping the flow of urine, catch some urine in the sterile container and place lid on securely
8. Finish off by passing the rest of the urine into the toilet.
9. Advise the patient to wash their hands afterwards and bring the sample back to you.
10. Label the sample and complete a microbiology form with relevant clinical information.
11. Send sample to the laboratory straight away as per local NHS policy
12. Document in the patients records

Date	Competent (yes/no)	Assessor's Signature	Print name and designation	Reviewed progress with tutor or professional mentor
Year 3				
Year 4				
Year 5				

Assessors' Comments:

Student's learning points including alternative techniques

Year 5 Declaration

I confirm that I have had theoretical and practical instruction on how to advise a patient to collect a mid-stream urine specimen. I am safe to practise under indirect supervision

Signed: Date

Tutor comments

Assessment of Competence for Medical Students

10a. Diagnostic Procedure: Managing an Electrocardiograph (ECG) Monitor

Aim: **To be able to manage an electrocardiograph monitor and interpret the tracing.**

Objectives: The student will be able to:

- Set up a continuous recording of the electrical activity of the heart
- Ensure the recorder is functioning correctly
- Interpret the ECG trace

Training/Opportunities for experience:

- Clinical Skills Teaching Pathway A (Year 3)
- Pathway A Cardiorespiratory
- Opportunities in Pathway B-Emergency care (Year3)
- Care of the elderly, RHCN, child health (year 4)
- Medicine and Surgery, Acute and Critical Care (Year 5

Risk Assessment: LOW

Assessment:

- Opportunities in years 3-5 whilst in Academies
- This skill may be assessed in year 3 or 4 OSCEs

Underpinning Knowledge

It is expected that the student will

- Understand the normal electrical conduction of the heart and how it can go wrong in disease
- Understand how to attach the electrodes to obtain a continuous ECG trace
- Be able to describe the normal ECG waveform and what the different waves represent with regards to the electrical conduction of the heart
- 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.

Performance Criteria: The student will:
1. Introduce yourself, explain procedure and obtain consent
2. Wash hands
3. Ensure that the ECG machine/monitor is safe to use and has been serviced (check service date on device)
4. Ensure that the patient is comfortable and rested, lying in a semi-recumbent position
5. Clean the limb and chest electrode sites. If necessary shaving the hairs to ensure good contact between skin and electrodes
6. Apply the chest and limb electrodes to the patient in the correct positions
7. Attach the leads from the ECG machine to the electrodes
8. Check the leads are correctly connected to the relevant electrodes
9. Ensure the leads are not pulling on the electrodes or lying over each other
10. Check the monitoring machine is switched on and set to read the correct lead
11. If artefact is present, check the electrodes and connections
12. Know how to print out a short section of the trace and label and file it appropriately
13. Interpret the ECG using a systematic approach
14. Correctly identify any common rhythm abnormalities
15. Explain the findings to the patient and make an appropriate plan
16. Clean equipment and store safely as per local NHS policy

Date	Competent (yes/no)	Assessor's Signature	Print name and designation	Reviewed progress with tutor or professional mentor
Year 3				
Year 4				
Year 5				

Assessors' Comments:

Student's learning points including alternative techniques:

Year 5 Declaration

I confirm that I have had theoretical and practical instruction on how to manage an Electrocardiograph (ECG) Monitor. I am safe to practise under indirect supervision

Signed:	Date

Tutor comments

Assessment of Competence for Medical Students

10b. Diagnostic Procedure: Performing and Interpreting a 12 lead Electrocardiograph (ECG)

Aim: To be able to perform and interpret a 12 lead ECG

Objectives: The student will be able to:

- Demonstrate an understanding of basic cardiac electrophysiology
- Demonstrate competence in recording a 12 lead ECG
- Interpret the ECG for signs of heart disease

Training/Opportunities for experience:

- Clinical Skills Teaching Pathway A and B (Year 3)
- Pathway A Cardiorespiratory
- Pathway B-Emergency care (Year3)
- Care of the elderly, RHCN, child health (year 4)
- Medicine and Surgery, Acute and Critical Care (Year 5

Risk Assessment: LOW

Assessment:

- ECG interpretation may be assessed in any of the clinical attachments in years 3-5. Sign off can be performed by any suitably trained doctor or nurse.
- This skill may be assessed in Year 3 or 4 OSCEs

Underpinning Knowledge

It is expected that the student will

- Understand the normal electrical conduction of the heart and how it can go wrong in disease
- Understand where the electrodes are placed on the chest and which areas of the heart the different leads look at
- Be able to describe the normal ECG waveform and what the different waves represent with regards to the electrical conduction of the heart
- 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.
- Know how to calculate the axis of an ECG and list causes of an abnormal axis
- Be able to identify specific abnormal ECG patterns.

Performance Criteria: The student will:
1. Explain procedure and obtain consent
2. Wash hands
3. Ensure that the patient is comfortable and rested, lying in a semi-recumbent position
4. Clean the limb and chest electrode sites. If necessary shaving the hairs to ensure good contact between skin and electrodes
5. Apply the chest and limb electrodes to the patient in the correct positions
6. Attach the leads from the ECG machine to the electrodes
7. Check the leads are correctly connected to the relevant electrodes
8. Ensure the leads are not pulling on the electrodes or lying over each other
9. Turn on the ECG machine
10. Ask the patient to relax and not move or speak while the ECG is being recorded
11. Check the calibration is 10mm/mV and the paper speed 25mm/second
12. Commence the recording
13. If artefact is present, check the electrodes and connections

14. Detach and label the ECG with the clinical details
15. Help the patient to remove the electrodes and make themselves comfortable
16. Interpret the ECG using a systematic approach
17. Correctly identify any common abnormalities
18. Explain the findings to the patient and make an appropriate plan

Date	Competent (yes/no)	Assessor's Signature	Print name and designation	Reviewed progress with tutor or professional mentor
Year 3				
Year 4				
Year 5				

Assessors' Comments:

Student's learning points including alternative techniques:

Year 5 Declaration

I confirm that I have had theoretical and practical instruction on how to record and interpret an ECG. I am safe to practise under indirect supervision

Signed: ..... Date .....

Tutor comments

Assessment of Competence for Medical Students

11. Diagnostic Procedure: Taking nose, throat and skin swabs

Aim: To be able to take nose, throat and skin swabs

Objectives: 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
- Know the types of swabs and when to use them
- Know how to access local NHS policies related to taking nose, throat and skin swabs

Training/Opportunities for experience:

- Clinical Skills Teaching Pathway B
- Pathway B-Perioperative care (Year3)
- Care of the elderly, RHCN, child health (year 4)
- Medicine and Surgery, Acute and Critical Care (Year 5)

Risk Assessment: LOW

Assessment:

- Clinical Skills Trainer, GP, trained nurse, clinical teaching fellow or hospital doctor will assess basic competence using the checklist below
- This skill may also be assessed during year 3 or 4 OSCEs

Underpinning Knowledge

It is expected that the student will

- Understand the indications for performing nose, throat and skin swabs
- Be able to interpret the results
- Understand the limitations of the swabs
- Be able to explain the procedure to patients

Performance Criteria: The student will:	
1.	Introduce yourself, explain procedure and obtain consent.
2.	Gather the required equipment and microbiology form.
3.	Wash hands and wear gloves.
4.	Ensure that the patient is comfortable and rested.
5.	Choose the appropriate swab.
6.	To perform a **nose swab,** ask the patient to tilt their head back, moisten the swab tip with sterile saline; Move the swab from the anterior nares and direct it upwards into the tip of the nose and gently rotate it. Repeat the procedure with the same swab in the other nostril
7.	To perform a **throat swab,** sit the patient facing a light source and depress the tongue with a spatula; Quickly, but gently, rub the swab over any area with exudate or inflammation, usually the tonsillar fossa or any area with a lesion; Avoid touching any other area of the mouth or tongue with the swab. ***Please note you do not need to moisten a throat swab with sterile saline***
8.	To perform a **skin swab**, moisten the swab tip with sterile saline and gently rotate the swab along the area of skin inside the thighs close to the genitalia
9.	Remove the plastic cap from the plastic tube
10.	Carefully place the swab in the plastic tube, ensuring it is fully immersed and ensure cap is firmly secure.
11.	Provide tissue for the patient if a nose swab has been taken.
12.	Remove gloves, apron and wash hands.
13.	Label the samples appropriate and complete a request form.
14.	Despatch the samples to the laboratory.
15.	Explain the findings to the patient and make an appropriate plan.

*** Please note how to take wound swabs is mentioned in wound care (21b-page 74)**

Date	Competent (yes/no)	Assessor's Signature	Print name and designation	Reviewed progress with tutor or professional mentor
Year 3				
Year 4				
Year 5				

Assessors' Comments:

Student's learning points including alternative techniques

Year 5 Declaration

I confirm that I have had theoretical and practical instruction on how to take nose, throat and skin swabs. I am safe to practise under indirect supervision

Signed: Date

Tutor comments

Assessment of Competence for Medical Students

12a. Patient Care: Hand washing & 'scrubbing-up'

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

Objectives: The student will be able to:

- Demonstrate an understanding of why meticulous hand washing it so important
- Demonstrate competent hand washing in the ward and out-patient setting
- Demonstrate competence in 'scrubbing-up' in theatre

Training/Opportunities for experience:

- HCA Days (year 1)-Handwashing
- Effective consulting clerkship (Year 2)-Handwashing
- Pathway A and B (Year3)- Handwashing and Scrubbing
- Care of the elderly, RHCN, Child Health (year 4)-Handwashing
- Medicine and Surgery, Acute and Critical care, Primary and community care (year5)Handwashing and scrubbing

Risk Assessment: LOW

Assessment:

- A GP, trained nurse, hospital doctor will be able to assess basic competence.
- This skill may also be assessed in year 3 and 4 OSCEs
- A stamp in the log book is also required when completed the surgical skills course (year 5)

Underpinning Knowledge

It is expected that the student will

- Understand the importance of performing hand washing in a systematic fashion before and after seeing each patient
- Know how to wash their hands effectively
- Understand when to wash their hands and when to use each method
- Know the potential risks to the patients of not practising good hygiene

Performance Criteria: The student will:
1. Explain in what situations hand washing is important and when it should be undertaken
2. Be able to 'scrub up' in theatre
3. Wash hands with soap and water on the ward using the six stage technique
4. Washing hands on the ward with gel
5. Ensure hands are washed in line with the 'Five moments of hand hygiene'
6. Educate patients, colleagues, and others on the importance of hand hygiene as needed.

Date	**Competent (yes/no)**	**Assessor's Signature**	**Print name and designation**	**Reviewed progress with tutor or professional mentor**
Year 3				
Year 4				
Year 5				

Assessors' Comments:

Student's learning points including alternative techniques:

Year 5 Declaration

I confirm that I have had theoretical and practical instruction on hand washing, I am safe to practise under indirect supervision on the ward and in theatre settings I am safe to practise under direct supervision.

Signed: Date

Tutor comments

Assessment of Competence for Medical Students

12b.Patient Care: Use of personal protective equipment (gloves, gowns, masks)

Aim: To understand when to use personal protective equipment.

Objectives: 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 its use.

Training/Opportunities for experience:

- Clinical Skills Teaching Pathway A and B (Year 3)
- Pathway A and B (year 3)
- Care of the elderly, RHCN, child health (year 4)
- Medicine and Surgery, Acute and Critical Care (Year 5)

Risk Assessment: LOW

Assessment:

- Attendance at teaching in Academies
- Signed Pathway A or B in Year 3
- During Surgical unit in year 5

Underpinning Knowledge
It is expected that the student will • 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 • Know how to put on a sterile gown and gloves after hand scrubbing

Performance Criteria: The student will:
1. Select your gown size and open the gown pack onto a clean surface without contaminating the contents
2. Select the correct size of glove and open the packet onto the gown pack maintaining the sterile field
3. Wash your hands in the surgical sink
4. Use a nail brush during your first surgical scrub of the day
5. Use appropriate antiseptic hand washing liquid
6. Clean hands, wrists and forearms thoroughly
7. Ensure hands are washed for an appropriate effective period
8. Dry arms from hands to elbows, discarding the towels and using a separate towel for each arm
9. Pick up your gown ensuring that you handle only the inner surface
10. Put on the gown without allowing your hands to protrude from the garment sleeves
11. Put on sterile gloves using a closed technique
12. Ask an assistant to tie the posterior ties on the gown
13. Passing the paper tab of the waist tie to the assistant, rotate to close the gown at the waist and tie the waist of the gown maintaining sterility

Date	Competent on all criteria (yes/no)	Assessor's Signature	Print name and designation	Reviewed progress with tutor or professional mentor
Year 3				
Year 4				
Year 5-Theatres				

Assessors' Comments:

Student's learning points including alternative techniques:

Year 5 Declaration I confirm that I have had theoretical and practical instruction on use of personal protective equipment. I am safe to practise under direct supervision
Signed: ..... Date .....
Tutor comments

Assessment of Competence for Medical Students

13. Patient Care: Clinical Skill: Setting up an infusion

Aim: To be able to set up an infusion

Objectives: The student will be able to:

- Demonstrate how to assess if an inserted cannula is appropriate to attach an infusion to
- Demonstrate competence in preparing an IV Infusion using aseptic non-touch technique (ANTT)
- Know how to calculate an accurate drip rate according to prescription
- Demonstrate how to connect an IV Infusion to a cannula using aseptic non-touch technique (ANTT)
- Be aware of infusion devices and when to use them

Training/Opportunities for experience:

- Clinical Skills Teaching Pathway A
- Pathway B-Perioperative care (Year3)
- Care of the elderly, RHCN, child health (year 4)
- Medicine and Surgery, Acute and Critical Care (Year 5)

Risk Assessment: MEDIUM

Assessment:

- Opportunities in years 3-5
- This skill may also be assessed during year 4 OSCE

Underpinning Knowledge

Setting up an infusion

It is expected that the student will

- Understand the basic principles of IV fluid therapy and setting up an IV infusion using aseptic non-touch technique (ANTT)
- Be able to check the fluid in the bag and fluid prescription chart
- Know how to set up the fluid bag and 'giving set' using aseptic non-touch technique (ANTT) without leaving any bubbles of air in the system
- Know how to adjust the drip rate according to the prescription
- Be aware of electronic devices and training required

Performance Criteria: The student will:
1. Introduce yourself and check patient understanding, check and assess cannula can be used.
2. In the treatment room/clean area: Wash hands, check the fluid prescription, expiry date and required infusion rate.
3. Put on gloves, check correct fluid bag and giving set, including date of expiry
4. Take outer bag off the IV fluid bag (there is usually a small tear indicating where to open) hang bag on drip stand and remove stopper on bag where the IV Line will be inserted
5. Remove the giving set protecting key parts and turn off giving set using the flow controller to avoid bubbles
6. Remove cover on the trocar, using aseptic non-touch technique (ANTT) Insert trochar into bag until it is in position at the bottom of the fluid bag
7. Half fill drip chamber in giving set by squeezing it gently
8. Open giving set using the flow controller, control the flow of fluid and fill the line until it reaches inside the cap at the end of the line
9. Place the end of the line in the slot provided at the side of the flow controller
10. At the patient's bedside, flush the cannula with 5mls of 0.9% sodium chloride using a pulsatile method, observe for signs of infiltration. If cannula is safe to use continue if not re-site cannula according to local NHS Policy
11. Attach to cannula as per local policy, regulate drip rate according to policy, dispose of waste, remove gloves and wash hands

12. Check patient is OK
13. Document according to Local NHS Policy

Date	Competent on all criteria (yes/no)	Assessor's Signature	Print name and designation	Reviewed progress with tutor or professional mentor
Year 3				
Year 4				
Year 5				

Assessors' Comments:

Student's learning points including alternative techniques:

Year 5 Declaration

I confirm that I have had theoretical and practical instruction on how to establish peripheral IV access and set up an infusion. I am safe to practise under direct supervision

Signed: Date

Tutor comments

Assessment of Competence for Medical Students

14. Patient Care: Correct techniques for 'moving and handling' including patients

Aim: 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.

Objectives: 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
- Demonstrate safe moving and handling of patients who are frail

Training/Opportunities for experience: This is mandatory training for health care workers

- Effective consulting clerkship (Year 2) Academies
- Pathway A and B (Year3)
- Care of the elderly, RHCN, Child Health (year 4)
- Medicine and Surgery, Acute and Critical care, Primary and community care (year5)

Risk Assessment: LOW

Assessment:

- Attendance register at key lecture by manual handling advisor
- Manual Handling key worker or experienced practitioner

Underpinning Knowledge

It is expected that the student will

- Understand the basic principles of how to lift and move patients in ways to avoid harm to the patient or themselves
- Understand the importance of using correct techniques when asked to assist with moving heavy objects or patients

Please record method of training, Practical or e-learning and where training took place

Date	Practical or E learning & location	Signature	Print name and designation	Reviewed progress with tutor or professional mentor
Year				
Year				
Year				
Year				
Year				

Assessors' Comments:

Student's learning points including alternative techniques:

Year 5 Declaration

I confirm that I have had theoretical and practical instruction on moving and handling patients. I am safe to practise under indirect supervision.

Signed:		Date	

Tutor comments

Assessment of Competence for Medical Students

15. Prescribing: Instructing patients in the use of devices for inhaled medication

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

Objectives: 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)

Training/Opportunities for experience:

- Clinical Skills Teaching Pathway A (year 3)
- Pathway A cardiorespiratory and GP days (Year 3)
- Care of the elderly, RHCN, child health (year 4)
- Medicine and Surgery, Acute and Critical Care (Year 5)

Risk Assessment: LOW

Assessment:

- May be assessed during year 3 or year 4 OSCEs
- GP, Specialist Respiratory Nurse, hospital doctor, clinical fellow or trained nurse can assess basic competence using the checklist below during any attachment.

Underpinning Knowledge
It is expected that the student will • Have a broad understanding of the different types of inhalers available • Understand how these work and how to instruct a patient to use them correctly • Understand the strengths and weaknesses of each device so that the correct one can be selected for individual patients • Understand when and how to use a volumatic device • Be able to identify, give clear instructions to a patient on how to use an inhaler and to assess them using it.

Performance Criteria: The student will:
1. Introduce yourself, explain procedure and obtain consent
2. Wash hands
3. Instruct and observe use of MDI inhaler
4. Instruct and observe use of accuhaler
5. Instruct and observe use of volumatic
6. Instruct and observe use of turbohaler
7. Have knowledge about which type of inhalers are best in certain circumstances

Date	Competent (yes/no)	Assessor's Signature	Print name and designation	Reviewed progress with tutor or Professional mentor
Year 3				
Year 4				
Year 5				

Assessors' Comments:

Student's learning points including alternative techniques:

Year 5 Declaration

I confirm that I have had theoretical and practical instruction on how to instruct patients in the use of devices for inhaled medication. I am safe to practise under indirect supervision.

Signed: Date

Tutor comments

Assessment of Competence for Medical Students

16. Prescribing: Administering Oxygen

Aim: To administer oxygen safely to patients

Objectives: 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
- Monitor and adjust oxygen as needed

Training/Opportunities for experience:

- Clinical Skills Teaching Pathway B (year 3)
- Pathway A cardiorespiratory (Year 3)
- Pathway B Emergency care, anaesthetics (Year 3)
- Care of the elderly, RHCN, child health (year 4)
- Medicine and Surgery, Acute and Critical Care (Year 5)

Risk Assessment: MEDIUM

Assessment:

- A GP, hospital doctor, clinical fellow or trained nurse will assess basic competence using the checklist below
- This skill may also be assessed during year 3 or 4 OSCEs

Underpinning Knowledge

It is expected that the student will

- 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-rebreath 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.
- Be aware of service dates required by medical engineering on oxygen flow meters.

Performance Criteria: The student will:
1. Introduce yourself, explain procedure to patient and obtain verbal consent
2. Correctly record the oxygen prescription on the drug chart
3. Correctly set up the oxygen circuit (showing how this would be delivered using nasal cannulae, venturi mask or non rebreath mask)
4. Correctly check the mask fit for comfort and correct delivery
5. Be able to add in a humidification circuit
6. Decide what monitoring the patient requires after set up, including when to perform arterial blood gas monitoring if required

Date	Competent (yes/no)	Assessor's Signature	Print name and designation	Review progress with tutor or professional mentor
Year 3				
Year 4				
Year 5				
Year 5 ILS Course				

Assessors' Comments:

Student's learning points including alternative techniques:

Year 5 Declaration

I confirm that I have had theoretical and practical instruction on how to administer oxygen. I am safe to practise under indirect supervision.

Signed: ..... Date .....

Tutor comments

Assessment of Competence for Medical Students

17a. Prescribing: Performing a subcutaneous and intramuscular injection

Aim: To be able to administer a subcutaneous and intramuscular injection

Objectives: The student will be able to:

- Explain the procedure of subcutaneous and intramuscular injection
- Demonstrate Safe Preparation of medication required for Sub cut or Intramuscular injection
- Administer a subcutaneous and intramuscular injection

Training/Opportunities for experience:

- Clinical Skills Teaching Pathway B (year 3)
- Pathway B Emergency care, trauma, dermatology, Musculoskeletal (year 3)
- Pathway B Emergency care, anaesthetics (Year 3)
- Care of the elderly, RHCN, child health (year 4)
- Medicine and Surgery, Acute and Critical Care (Year 5)

Risk Assessment: MEDIUM

Assessment:

- Clinical Skills Trainer, GP, hospital doctor or trained nurse will assess basic competence using the checklist below
- This skill may also be assessed during the year 4 OSCE
- Many opportunities to practice in GP attachments (flu vaccination programmes), A and E (tetanus vaccinations), wards (SC insulin or heparin injections)

Underpinning Knowledge

It is expected that the student will

- 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
- Be able to discuss the benefits and limitations of both subcutaneous and intramuscular injections
- Subcutaneous injections are used for slow systemic absorption e.g. insulin. Intramuscular injections are administered into muscle and provide rapid systemic action allowing relatively large doses to be absorbed.
- Be able to perform both types of injections with good technique to minimise patient discomfort.

Performance Criteria: The student will:
Clinical Skill: subcutaneous injection with drug preparation. **If injecting with a prefilled syringe follow steps 6 onwards ensuring you are aware of individual drug injection guidance**
1. Checking the prescription chart note patient allergy status, check the drug required, dose and route of administration with a colleague
2. Wash hands and gather the equipment needed, use a cleaned procedure tray to place equipment in, put gloves on
3. Using a blunt drawing up needle and appropriate sized syringe, draw up the required amount of drug according to drug instructions (if drawing up from a glass ampoule always use a blunt filter needle)
4. Expel any air and check the amount is correct, remove the used drawing up needle and dispose of in a sharps bin
5. Using aseptic non-touch technique (ANTT) place an appropriate sized safety needle for a subcutaneous injection (usually 25gauge needle) on to the end of the syringe
6. Remove gloves and wash hands, take procedure tray with medication in to the bedside with the patient's drug chart
7. Introduce yourself, explain procedure to patient and obtain consent after correctly identifying the patient and checking allergy status, wash hands and put gloves on
8. Clean the injection site with the alcohol swab if skin according to policy does not look clean, allow to dry
9. Confirm injection site with patient and ensuring rotation of injection sites
10. Pinch a fold of skin so as to lift the adipose tissue away from underlying muscle
11. Insert needle horizontally into the fold (use a 45^{o} angle if using a longer hypodermic 25gauge needle)
12. After injecting the medication withdraw the needle, apply gauze, cotton wool to stop any bleeding
13. If using a needle with a safety guard activate it as soon as you withdraw the needle from the patient
14. Dispose of needle in sharps bin

15. Clear waste, wash hands, check patient, sign prescription chart and document
16. Clean procedure tray and return to the treatment room/clean area with the sharps bin

Performance Criteria: The student will:
Clinical Skill: Intramuscular Injection
1. Check the prescription chart, note patient allergy status, check the drug required, dose and route of administration with a colleague
2. Wash hands and gather the equipment needed, use a cleaned procedure tray to place equipment in, put gloves on
3. Using a blunt drawing up needle and appropriate sized syringe, draw up the required amount of drug according to drug instructions (if drawing up from a glass ampoule always use a blunt filter needle)
4. Expel any air and check the amount is correct, remove the used drawing up needle and dispose of in a sharps bin
5. Using aseptic non-touch technique (ANTT) place an appropriate sized safety needle for a subcutaneous injection (usually 21,23 or 25gauge safety needle) on to the end of the syringe
6. Remove gloves, wash hands, take the medication in a procedure tray and take to the bedside with the patient's drug chart
7. Introduce yourself, explain procedure to patient and obtain consent after correctly identifying the patient and checking allergy status, wash hands and put gloves on
8. Discuss with patient preferred injection site and assess the area, cleaning the skin according to policy
9. Identify the correct muscle area to inject into (to ensure nerves or vessels are avoided) clean area if required and allow area to dry
10. **Using the Z Track Technique administer the IM injection at a 90 degrees angle to the skin to reach the muscle
11. Aspiration is not always necessary when administering injections unless injecting into highly vascular areas such as the dorsogluteal site. If site location or local NHS policy requires you to aspirate then pull back for a few seconds and check that no blood fills into the syringe (if so remove the needle and syringe, dispose of syringe and re-draw medication)
12. Slowly inject the medication, once all medication has been administered wait 10 secs to ensure all is dispersed into the muscle
13. Withdraw the needle, release traction on surrounding skin, activate safety guard and dispose in sharps bin, apply gauze, cotton wool to stop any bleeding if needed
14. Check patient, clear waste, wash hands and sign prescription chart
15. Clean procedure tray and return to the treatment room/clean area with the sharps bin

** **Z track technique, involves using one hand to apply traction to skin/muscle away from the injection site, after aspiration, administer drug slowly, wait 10 seconds before removing needle and releasing skin traction. This promotes patient comfort, increases injection site absorption of drugs and decrease loss of drug from injection site.**

Date	Competent (yes/no)	Assessor's Signature	Print name and designation	Review progress with tutor or professional mentor
Year 3				
Year 4				
Year 5				

Assessors' Comments:

Student's learning points including alternative techniques:

Year 5 Declaration

I confirm that I have had theoretical and practical instruction on how to perform SC and IM injections. I am safe to practise under direct supervision.

Signed:	Date

Tutor comments

17b. Prescribing: Making up drugs for parenteral administration

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

Objectives: The student will be able to:

- Demonstrate an understanding of how to prepare and administer IV medication safely.
- Know how to add a drug to a volume of fluid to make up the correct concentration for injection.
- Demonstrate the skill using aseptic non-touch technique (ANTT).
- Know where to find guidance on the safe preparation and administration of IV medication when working in NHS Hospitals.

Training/Opportunities for experience:

- Teaching Pathway B (year 3)
- Observation of practice in Pathway A and B (Year 3)
- Pathway B Emergency care, anaesthetics (Year 3)
- Care of the elderly, RHCN, child health (year 4)
- Medicine and Surgery, Acute and Critical Care (Year 5)

Risk Assessment: HIGH

Assessment:

- This skill may be assessed in the year 4 OSCE
- Minimum sign off in the log book - observation of 3 different procedures after initial teaching in year 3. They can be signed off by a suitably trained nurse, doctor or pharmacist.

Underpinning Knowledge

It is expected that the student will

- 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.

(**Standard practice requires x2 Registered Nurses or Doctors with IV drug experience to check the IV medication with one of them administering the drug, unless it is controlled drugs then it is recommended that the second checker is present during the administration)**

Performance Criteria: The student will know how to:
1. Check the patient's prescription chart and allergy status, cannula site and cannula insertion date. Re-site cannula if necessary
2. In the treatment room/clean area: Wash hands, wear gloves, prepare required drug (checking expiry date) and IV flush as per IV Drug policy using a clean procedure tray with aseptic non-touch technique (ANTT). Dispose of sharps and waste according to policy
3. *Ensure the right drug right dose, for the right patient, right time, right route, right reason, right documentation.
4. At the patient bedside identify the patient, wash hands and put on gloves
5. Check patient understanding and comfort
6. If there is a needle free access device attached to the cannula clean the access port with a 70% alcohol/2% Chlorhexidine for 30 seconds and allow to dry
7. Using aseptic non-touch technique (ANTT) administer a flush of 5mls of 0.9% of sodium chloride using a pulsatile method, check cannulation site for signs of infiltration, re-site cannula if infiltration occurs

8. Administer the drug according to IV drug policy, check patient, remove gloves, wash hands, document administration				
9. Clear used equipment, disposing of waste according to policy and clean procedure tray				
Date	**Observation**	**Assessor's Signature**	**Print name and designation**	**Review progress with tutor or professional mentor**
Year 3				
Year 4				
Year 5				
Year 5				

Assessors' Comments:

Student's learning points including alternative techniques:

Year 5 Declaration

I confirm that I have had theoretical and practical instruction on how to make up drugs for parenteral administration. I am safe to practise under direct supervision.

Signed: ..... Date .....

Tutor comments

Assessment of Competence for Medical Students

18. Therapeutic procedure: Peripheral Intravenous (iv) Access

Aim: To be able to establish peripheral iv access and set up an infusion

Objectives: 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 using aseptic non-touch technique (ANTT)
- Demonstrate knowledge of cannulation equipment and the use of different size cannulas
- Understand how to select appropriate veins according to treatment
- Understand how to check local NHS Policy and Practice for any differences in policy or equipment used.

Training/Opportunities for experience:

- Clinical Skills Teaching Pathway A and B (Year 3)
- Pathway A
- Pathway B-Emergency care (Year3)
- Care of the elderly, RHCN (year 4)
- Medicine and Surgery, Acute and Critical Care (Year 5)

Risk Assessment: MEDIUM

Assessment:

- Signed by tutor in clinical skills after training using manikin.
- Each student will aim to cannulate and obtain signatures by registered nurse / doctor who does this regularly.

Underpinning Knowledge

Peripheral cannulation

It is expected that the student will

- Understand the safe principles of IV cannulation using aseptic non-touch technique (ANTT)
- Understand the importance of aseptic technique and be able to implement them.
- Know how to use a tourniquet.
- Know how to position the patient correctly and have all necessary equipment close to hand.
- Be able to insert a cannula correctly and be able to slide the cannula off the needle once 'flashback' is seen
- Know how to secure cannula safely in position and flush using a pulsatile method with 0.9% sodium chloride, ensuring the 'flush' enters the vein and does not enter the subcutaneous tissues(infiltration) – suggesting misplacement.
- Know how to prepare a Needle free access device, when to attach one to a cannula and how to use it

Performance Criteria: The student will:
1. Wash hands and prepare equipment, clean procedure tray and prime NFAD if required, prepare 5ml 0.9% Sodium Chloride Flush
2. Introduce self, explain procedure to patient and obtain verbal consent
3. The patient should be lying or sitting comfortably with the arm resting on a pillow
4. Discuss patient hand preference, apply the tourniquet to the arm 8-10cm above cannulation site and palpate to identify suitable vein
5. Release tourniquet
6. Wash hands, put on gloves and clean the overlying skin with a chlorhexidine 2% and Alcohol 70% wipe for **15- 30 seconds as per to local NHS cannulation policy**
7. Use a circular motion, working from the centre to the outside of the chosen cannula site, allow to air dry
8. Place tourniquet back on, remove cannula from packaging whilst protecting key parts, check it and take off white cap and place in packaging to use later if not using a needle free access device.
9. Check patient is ok and happy for you to continue
10. **Do not re-palpate** the prepared site. Using your non-dominant hand anchor the vein below the site, insert the cannula needle using aseptic non-touch technique (ANTT) through the skin at an angle of 20-40 degrees into the vein
11. Once flashback is seen decrease the angle and advance 2mm further to ensure you are in the lumen of the vein.
12. Hold the needle in place with one hand and slide the cannula off the needle with the other. In some safety cannula's

you may see a second flashback along the cannula as you advance over the needle
13. Release the tourniquet and press over the vein above the end of the cannula, remove the needle and place in sharps bin straight away, attach cap or prepared needle free access device
14. Fix the cannula in place with a dressing (place the completed date and time strip on one corner of the dressing) and flush through with **5mls-10mls (according to local NHS policy)** of 0.9% sodium chloride using a pulsatile method.
15. Check patient is ok and know to report any pain experienced around the cannulation site (provide patient information leaflets to aid understanding)
16. Dispose of equipment, gloves, clean procedure tray and wash hands
17. Document essential cannula details according to local NHS policy documentation

Performance Criteria: The student will: Remove a cannula safely
1. Use the Visual Infusion Phlebitis score to assess a patient's cannula
2. If required remove a cannula correctly, gently remove the dressing, remove the cannula and place gauze over site until patient stops bleeding.
3. Document according to local NHS policy

Date	**Competent (yes/no)**	**Assessor's Signature**	**Print name and designation**	**Review progress with tutor or professional mentor**
Year 3 Clinical Skills				
Year 3				
Year 4				
Year 4				
Year 5				
Year 5				

Assessors' Comments: Please use the space below for written feedback to the student.

Student's learning points including alternative techniques:

Year 5 Declaration

I confirm that I have had theoretical and practical instruction on how to establish peripheral IV access. I am safe to practise under direct supervision.

Signed: Date

Tutor comment

Assessment of Competence for Medical Students

19. Therapeutic procedure: Blood transfusion

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

Objectives: 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.

Training:

- Some E-Learning may be available whilst in Academies
- Observation of blood transfusions in Year 3 and 4
- Simulation opportunities in Academies
- Observe in Senior Medicine & Surgery (year 5)
- Trusts will provide more mandatory training in F1 year

Risk Assessment: MEDIUM

Assessment:

- Student will be expected to have attended the lectures on this topic and observed nurses or doctors on the wards undertaking this task.
- Minimum of two signed off observations of a blood transfusion being given on the ward is required. A suitably trained doctor or nurse can sign the student has observed this skill.

Underpinning Knowledge

It is expected that the student will

- Understand the indications for blood transfusion
- 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.
- Know how to assess for a possible transfusion reaction and what action to take.

Date	Observation of whole procedure and safety checks (yes/no)	Assessor's Signature	Print name and designation
Attendance at blood transfusion tutorial Year 3 Pathway B			
Year 4			
Year 5			

Assessors' Comments:

Student's learning points including alternative techniques

Year 5 Declaration I confirm that I have had theoretical and practical instruction on how to perform blood transfusion. I have gained experience in practice and simulated settings.	
Signed:	Date
Tutor comments	

Assessment of Competence for Medical Students

20.Therapeutic procedure: Performing male and female urinary catheterisation

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

Objectives: The student will be able to:

- Explain the procedure of catheterisation to a patient
- Perform catheterisation on both female and male manikins
- Demonstrate safe aseptic non-touch technique (ANTT) whilst inserting urethral catheters
- Understand the indications for insertion of a urinary catheter
- Know the potential complications of urinary catheterisation

Training/Opportunities for experience:

- Clinical Skills Teaching Pathway A and B (Year 3)
- Pathway A
- Pathway B-Emergency care (Year3)
- Care of the elderly, RHCN (year 4)
- Medicine and Surgery, Acute and Critical Care (Year 5)

Risk Assessment: MEDIUM

Assessment:

- A hospital doctor or suitably trained nurse will assess basic competence using the checklist below
- This skill may be assessed in year 4 OSCE
- Minimum requirement is to perform 2 catheterisations on male and female manikins and 2 catheter insertions on patients

Underpinning Knowledge

It is expected that the student will

- Understand the indications for urinary catheterisation
- Understand how to insert a catheter into a female and male manikin demonstrating aseptic non-touch technique (ANTT)
- Know the potential complications of urinary catheterisation and how to deal with them
- Know what essential details are needed when documenting

Performance Criteria: The student will:

Clinical Skill: male catheterisation

1. Clean a procedure trolley, wash hands and place sterile catheterisation pack (containing appropriate sized catheter) or individual sterile equipment on the bottom of the cleaned trolley
2. Introduce yourself, confirm patients' identity and explain procedure obtaining verbal consent.
3. Wash hands
4. Using an aseptic non-touch technique (ANTT) open up sterile equipment on to the top of the procedure trolley, empty sterile saline onto cotton wool
5. Assist patient into a comfortable supine position, ensure patient dignity is maintained
6. Expose penis area
7. Wash hands and put sterile gloves on
8. Using some gauze around the base of the penis with the non-dominant hand, clean the penis away from the meatus ensure the foreskin is retracted in order to clean effectively.
9. Hold the penis in a vertical position and Insert the end of the lubrication syringe into the meatus and instill 10ml slowly
10. Remove sterile gloves, wash hands, check patient is ok and put new sterile gloves on
11. If the catheter is not already connected to the sterile catheter bag, connect the bag to the catheter prior to insertion
12. Place the sterile towel over the patient, ensuring the penis is accessible
13. Tear the end of the sterile packaging from the tip of the catheter using aseptic non-touch technique (ANTT)
14. Use gauze to hold the penis with the non-dominant hand and advance the catheter using aseptic non-touch technique (ANTT) with the dominant hand
15. Advance until you see urine flow, then advance another 2cms to ensure the catheter is in the bladder
16. Inflate the catheter balloon with 10 mls of sterile water by connecting the syringe to the inflation port, if there is resistance or patient experiences pain stop, deflate and advance further.
17. Once the balloon is inflated remove syringe
18. Ensure foreskin returned to normal position to avoid para-phimosis

19. Observe the urine flow, check colour, consistency and volume and check patient is comfortable
20. Remove sterile towel, ensure catheter bag is positioned to encourage drainage
21. Remove sterile gloves, clear equipment away, clean trolley. Provide patient information leaflet
22. Document the details of the catheter, (size and batch number) time and date of insertion, reasons for insertion, any complications experienced, inflated with 10mls of sterile water and a plan of care for when catheter needs removing or replacing
Performance Criteria: The student will:
Clinical Skill: female catheterisation
1. Clean a procedure trolley, wash hands and place sterile catheterisation pack (containing appropriate sized catheter) or individual sterile equipment on the bottom of the cleaned trolley
2. Introduce yourself, confirm patients' identity and explain procedure obtaining verbal consent.
3. Wash hands
4. Using an aseptic non-touch technique (ANTT) open up sterile equipment on to the top of the procedure trolley, empty sterile saline onto cotton wool
5. Position patient in comfortable supine position and with knees flexed and heels together
6. Wash hands and put sterile gloves on
7. Check patient is ok and has genitalia exposed
8. Clean the genitalia with wet cotton wool balls working in a pubis-anus direction
9. Carefully position the nozzle of the lubricant gel inside the meatus and instill slowly
10. Remove sterile gloves, wash hands, check patient is ok and put new sterile gloves on
11. If the catheter is not already connected to the sterile catheter bag, connect the bag to the catheter prior to insertion
12. Place sterile towel in front of patient and start to inset the catheter using aseptic non-touch technique (ANTT), use gauze when opening the area to aid insertion
13. Advance until you see urine flow, then advance another 2cms to ensure the catheter is in the bladder
14. Inflate the catheter balloon with 10mls of sterile water by connecting the syringe to the inflation port, if there is resistance or patient experiences pain stop, deflate and advance further.
15. Once the balloon is inflated remove syringe
16. Observe the urine flow, check colour, consistency and volume and check patient is comfortable
17. Remove sterile towel, ensure catheter bag is positioned to encourage drainage
18. Remove sterile gloves, clear equipment away, clean trolley. Provide patient information leaflet
19. Document the details of the catheter, (size and batch number) time and date of insertion, reasons for insertion, any complications experienced, inflated with 10mls of sterile water and a plan of care for when catheter needs removing or replacing

Date	**Competent on all criteria (yes/no)**	**Assessor's Signature**	**Print name and designation**
Year 3 Manikin			
Year 4			
Year 5			

Assessors' Comments:

Student's learning points including alternative techniques:

Year 5 Declaration

I confirm that I have had theoretical and practical instruction on how to insert a Urethral Catheter Using an Aseptic Non-Touch Technique. I am safe to practise under direct supervision.

Signed:	Date

Tutor comments

Assessment of Competence for Medical Students

21a. Therapeutic procedure: Wound care and basic wound closure and dressing

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

Objectives: The student will be able to:

- 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

Training/Opportunities for experience:

- Clinical Skills Teaching Pathway A and B (Year 3)
- Pathway A
- Pathway B-Emergency care (Year3)
- Care of the elderly, RHCN (year 4)
- Medicine and Surgery, Acute and Critical Care (Year 5)

Risk Assessment: **MEDIUM**

Assessment:

- Sign-off of basic proficiency after training using manikin
- Each student will have gained experience in suturing on models in the academies.
- The log book should be completed with each encounter

Underpinning Knowledge
Basic skin suturing **It is expected that the student will** • Understand the basic principles of skin suturing • Understand the importance of aseptic technique and choice of needle and suture material. • Know how to anaesthetise the skin correctly • Know how to position the patient correctly in the appropriate environment

Performance Criteria: The student will:
1. Introduce yourself, explain procedure and obtain consent
2. Collect the correct materials to perform the task
3. Use appropriate local anaesthetic
4. Carry out the procedure using an aseptic technique
5. Understand the different types of suture materials available and their indications
6. Clean the wound as necessary using an ANTT approach
7. Suturing the wound using an appropriate suture
8. Dispose of needles in the sharps bin
9. Inform the patient of the correct aftercare and when the suture needs to be removed
10. Apply the correct dressing
11. Dispose of equipment and waste according to local policy

Date	**Competent on all criteria (yes/no)**	**Assessor's Signature**	**Print name and designation**
Year 3 (manikin)			
Year 4			
Year 5			

Assessors' Comments:

Student's learning points including alternative techniques:

Year 5 Declaration

I confirm that I have had theoretical and practical instruction on how to perform skin suturing. I am safe to practise under direct supervision.

Signed:	Date

Tutor comments

Assessment of Competence for Medical Students

21b. Therapeutic Procedure: Wound care and basic wound dressing

Aim:	Provide basic care of surgical or traumatic wounds and applying dressings appropriately
Objectives:	The student will be able to: • Demonstrate an understanding of the different types of wound dressings • Demonstrate competence in applying simple dressings • Demonstrate an understanding of when to remove, examine and reapply dressings

Training/Opportunities for experience:

- Clinical Skills Teaching Pathway A and B (Year 3)
- Pathway A
- Pathway B-Emergency care (Year3)
- Care of the elderly, RHCN (year 4)
- Medicine and Surgery, Acute and Critical Care (Year 5

Risk Assessment: **LOW**

Assessment:

- Each student should gain experience within the Academies and GP Surgeries in years 3, 4 and 5
- Each dressing applied can be sign off by registered nurse or doctor who does this regularly.
- Minimum sign off is the changing of three dressings.

Underpinning Knowledge

Basic wound dressing

It is expected that the student will

- Understand the basic principles of wound dressing
- Understand the importance of aseptic technique and choice of dressing to be used
- Know when to reapply dressings and review wound healing
- How to take a wound swab

Performance Criteria: The student will:
1. Introduce yourself, explain procedure to patient and obtain verbal consent
2. Check you have the correct materials to perform the task and are in the correct environment
3. Wash hands, open up sterile dressing pack and dressings onto the sterile field, put on sterile gloves
4. If taking a wound swab use a bacterial swab (with transport medium) rotate the swab tip over 1 cm2 area of viable tissue at or near the centre of the wound for 5 seconds, apply enough pressure to express tissue fluid from the wound bed. If the wound is dry the tip of the swab should be moistened with 0.9% Sodium Chloride. Place used swab into plastic transport tube and complete documentation details and microbiology form ***Please see below recommendations for leg ulcer wound swabs***
5. Carry out wound inspection and dressing using aseptic non-touch technique (ANTT)
6. Check patient comfort, place secondary protective dressing/bandage if required
7. Remove gloves and wash hands
8. Dispose of waste according to policy
9. Document and record when the dressing needs to be changed

*** Use a swab with charcoal medium, cleanse the wound with saline, slough and necrotic tissue should also be removed before swabbing.Swab viable tissue displaying signs of infection whilst rotating the swab. Place in plastic tube and send to lab asap . Include all patient details, site, nature of the wound and any treatment current or recent.**

Date	Competent on all criteria (yes/no)	Assessor's Signature	Print name and designation	Reviewed progress with Tutor or professional mentor
Year 3				
Year 4				
Year 5				

Assessors' Comments:

Student's learning points including alternative techniques:

Year 5 Declaration I confirm that I have had theoretical and practical instruction on how to dress a wound dressing. I am safe to practise under direct supervision.
Signed: ..... Date .....
Tutor comments

Assessment of Competence for Medical Students

22.Therapeutic procedure: Insertion of a Fine Bore Naso Gastric Feeding Tube

Aim: To be able to pass a fine bore Naso Gastric tube.

Objectives: The Student will be able to:

- Explain the legal, moral and ethical issues of feeding
- Explain the procedure in detail
- Demonstrate the safe insertion and placement confirmation of a fine bore naso-gastric feeding tube

Training/Opportunities for experience:

- Clinical Skills Teaching Pathway A (Year 3)
- Pathway A
- Pathway B-Emergency care (Year3)
- Care of the elderly, RHCN (year 4)
- Medicine and Surgery, Acute and Critical Care (Year 5)
- E-learning (Year3/ 5)

Risk Assessment: **HIGH** (level of risk of harm to patient due to user error).
Assessment of competence will be by equipment trainer.

Assessment: Using performance criteria below, in Clinical Academies by Clinical Tutors, Nurse Specialist, Hospital Doctor. Minimum requirement is x2 on a manikin, observation and online module

Underpinning Knowledge

It is expected that the student will

- Understand the legal, moral and ethical issues of feeding.
- Explain the factors which need to be considered before undertaking this procedure.
- Identify all the relevant equipment required for the procedure.
- Discuss the importance of establishing correct placement prior to and during feeding.
- To demonstrate techniques to aid aspiration of the tube.
- To identify risk factors and the appropriate action to be taken to maintain patient safety.

Performance Criteria - The practitioner will:	
1.	Introduce yourself, explain the procedure and obtain consent, agreeing a signal if the patient wishes the procedure to stop. Discuss and agree which nostril to pass tube
2.	Ensure the patient is sitting upright at an angle of at least 30 degrees with their head supported.
3.	Ensure the patient blows their nose to clear the nostrils.
4.	Collect the correct equipment and estimate required tube length.
5.	Lubricate the tube according to the manufacturer's instructions
6.	Passes the tube correctly along the floor of the nose to the nasopharynx. **Provides water for patient to sip if not NBM**
7.	Instructs and reassures the patient appropriately.
8.	Advances the tube through the pharynx until the predetermined mark has been reached.
9.	Check the position of the tube by aspirating gastric contents and confirming with pH paper a level of 5.5 or below to confirm tube is in the stomach.
10.	Use appropriate methods if unable to aspirate stomach contents after first attempt.
11.	Secure tube in place and check patient comfort.
12.	Document in patients notes, name, date, reason for feeding with a Fine Bore Feeding Tube, consent and explanation given, length of tube at placement. Confirmation, tube lot number and expiry date.

Date	Competent on all criteria (yes/no)	Assessor's Signature	Print name and designation	Reviewed progress with Tutor or professional mentor
Year 3 Manikin				
Year 5				
Completion of online module https://www.ole.bris.ac.uk/bbcswebdav/xid-8176508_4				

Assessors' Comments:

Student's learning points including alternative techniques:

Year 5 Declaration

I confirm that I have had theoretical and practical instruction on how to insert a Fine Bore Naso gastric feeding tube. I have practised in simulation.

Signed: Date

Tutor comments

Assessment of Competence for Medical Students

23. Therapeutic Procedure: Use of local anaesthetics

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

Objectives: 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

Training/Opportunities for experience:

- Clinical Skills Teaching Pathway A and B (Year 3)
- Pathway A
- Pathway B-Emergency care (Year3)
- Care of the elderly, RHCN (year 4)
- Medicine and Surgery, Acute and Critical Care (Year 5)

Risk Assessment: MEDIUM

Assessment:

- A GP, hospital doctor can assess basic competence using the checklist below
- Minimum requirement is 2 on manikins

Performance Criteria: The student will:
Clinical Skill: use of local anaesthetics
1. Explain procedure to patient and obtain verbal consent and check for allergies
2. Check the drug amount and preparation and that they have the correct equipment to perform the task
3. Apply local anaesthetic to area required
4. Understand the different types of local anaesthetics and the potential benefits /risks and contra-indications to each one

Date	**Competent on all criteria (yes/no)**	**Assessor's Signature**	**Print name and designation**	**Reviewed progress with tutor or professional mentor**
Year 3				
Year 4				
Year 5				

Assessors' Comments:

Student's learning points:

Year 5 Declaration

I confirm that I have had theoretical and practical instruction on how to use local anaesthetics. I am safe to practise under direct supervision.

Signed: Date

Tutor comments

Assessment of Competence for Medical Students

Bristol 1 Ankle Brachial Pressure Index

Aim: **To use a hand-held Doppler Ultrasound to Detect Peripheral Arterial Disease**

Objectives:

- Demonstrate how to use a hand-held doppler when examining peripheral arteries
- Detect, where present, dorsalis pedis, posterior tibial and peroneal arterial signals
- Use a sphygmomanometer cuff in conjunction with a Doppler to measure ankle pressures
- Know how to relate ankle pressure to brachial arterial pressure to calculate Arterial Brachial Pressure Index (ABPI)

.

Training/Opportunities for experience:

- Clinical Skills Teaching Pathway A and B (Year 3)
- Pathway A Pathway B-Emergency care (Year3)
- Care of the elderly, RHCN (year 4)
- Medicine and Surgery, Acute and Critical Care (Year 5)

Risk Assessment: **LOW**

Assessment: Using performance criteria identified, assessment to take place in Clinical Academies by Clinical Tutors, Nurse specialists and Hospital Doctors. This skill is vital for you and your Patient's and will be an important skill for your F1/F2 years and beyond.

Underpinning Knowledge

It is expected that the student will

- Understand the causes of leg ulceration
- Understand how to use the equipment and recommended use
- Know the Significance of ABPI recordings in relation to leg ulcer management, life style changes and revascularisation

Performance Criteria: The Student will:
1. Explain the procedure to the patient and obtain consent
2. Prepare the equipment and check its service date has not expired use (according to local trust policy)
3. Assist the patient into a comfortable position onto a bed or couch and assist them to expose limb if required
4. Wash hands and put gloves on
5. Turn on the Doppler and activate the volume control so that a clear signal is audible when insonating over a palpable arterial pulse, such as the radial pulse
6. Ensure patient comfort, apply ultrasound jelly to the limb, holding the probe at an angle of insonation (45°-60°), find the arterial signal of: The Posterior tibial artery behind the medial malleolus The dorsal pedis artery between the first two metatarsals lateral to the tendon of extensor halluces longus
7. Apply the sphygmomanometer cuff to the patient's ankle, ensuring an appropriate size cuff is used
8. Whilst listening to the dorsalis pedis signal with the Doppler probe, inflate the cuff until the artery signal disappears. Keep the Doppler probe in the same position, release the cuff allowing the pressure to drop gradually. Make note of the precise systolic pressure in millimetres of mercury at which the arterial signal reappears on the cuff deflation
9. Repeat the process for the posterior tibial vessel
10. Apply the sphygmomanometer cuff to the patient's upper arm with the patient in a recumbent position at 45°
11. Place the Doppler probe, over the Brachial artery at the elbow or radial artery at the wrist signal in the arm
12. Inflate the cuff until the Brachial artery signal disappears and note the pressure at which it reappears on cuff deflation
13. Check patient is ok and remove cuff, wipe jelly from patient's skin and remove gloves
14. Wash hands
15. Draw a diagram of the limbs and record the findings on the diagram

16. Calculate the Ankle Brachial Pressure Index (ABPI)
17. Record the ABPI on the diagram of the patients limbs, sign and date it for the patient's medical records

Date	**Competent on all criteria (yes/no)**	**Assessor's Signature**	**Print name and designation**	**Reviewed progress with tutor or professional mentor**
Year 3				
Year 5				

Assessors' Comments:

Student's learning points including alternative techniques:

Year 5 Declaration

I confirm that I have had theoretical and practical instruction on how to perform Ankle Brachial Pressure Index. I am safe to practise under direct supervision.

Signed: ..... Date .....

Tutor comments

Assessment of Competence for Medical Students

Bristol 2 Therapeutic procedures: Management of the airway

Aim: To be able to manage a patient's airway – an important life-saving action

Objectives: The student will be able to:

- Demonstrate an understanding of why it is necessary to secure a patent airway as a primary task in an emergency situation
- Demonstrate competence in management of the airway using a 2 persons technique

Training:

- Observation and experience in Pathway B- Emergency care and Anaesthetics (year 3)
- Further practice in Medicine and Surgery and Critical Care (year 5)
- Complete this skill formally in the ILS course (year 5)

Risk Assessment: HIGH

Assessment:

- This skill will be formally taught and signed off during the ILS course in year 5. The logbook needs to be stamped at the end of this course. Please ensure Academy staff stamp after completion of ILS.

Underpinning Knowledge

Before you can adequately oxygenate a patient you need to open (if blocked) and maintain their airway. This is a primary skill, and may well be an immediate life-saving action that you will do as first responder, to keep someone alive until experienced help arrives. The usual cause of block is the tongue falling back, loose dentures that have slipped or secretions or vomit in the back of the mouth. The sequence of steps that you may need to perform to secure the airway, in order, are:

1. **Open it** Physically open the mouth, look in, and remove dislodged dentures or other objects such as food debris. If dentures are not loose leave them in. They will help the seal around the mask.
2. **Suck it out,** Use the suction to "look" behind the tongue and remove secretion or vomit.
3. **Head tilt, chin lift, jaw thrust.** These three simple manoeuvres are life-saving. You will be taught them and must practice them. The advantage of the jaw thrust is that the person doing it can also hold the mask on.
4. **Oropharyngeal or nasopharyngeal.** These are airway adjuncts. They assist you when the benefit of simple moves is transient or incomplete. The oropharyngeal airway (Guedel) is the usual. This holds the tongue forwards. When a patient is conscious a nasopharyngeal is better tolerated.
5. **Intubate** *You will not do this – but you may need to think ahead, and call someone who can**.**
6. **Surgery** Sometimes, usually after facial trauma or burns, the airway is impossible to find. Early tracheostomy or cricothyroidotomy is the only option left. Call a surgeon!

Once the airway is secure you can ventilate. Remember to use a 2 persons technique. Here one (the more experienced) opens the airway (with a jaw thrust) and holds the mask, and the other squeezes the bag.

*** Each hospital has its Medical Emergency Team call-out criteria (changes in airway, pulse, blood pressure, conscious level or blood glucose). Make sure you know these. The universal call out no. is 2222.**

Date	Competent on all criteria (yes/no)	Assessor's Signature	Print name and designation	Reviewed progress with tutor or professional mentor
Year 3				
Year 5 **ILS Stamp – finished course successfully**				

Assessor Comments:

Student's learning points including alternative techniques

Year 5 Declaration
I confirm that I have had theoretical and practical instruction on how to manage an airway,
Signed: ..... Date .....
Tutor