2025

First Year MBBS

Early Clinical Exposure

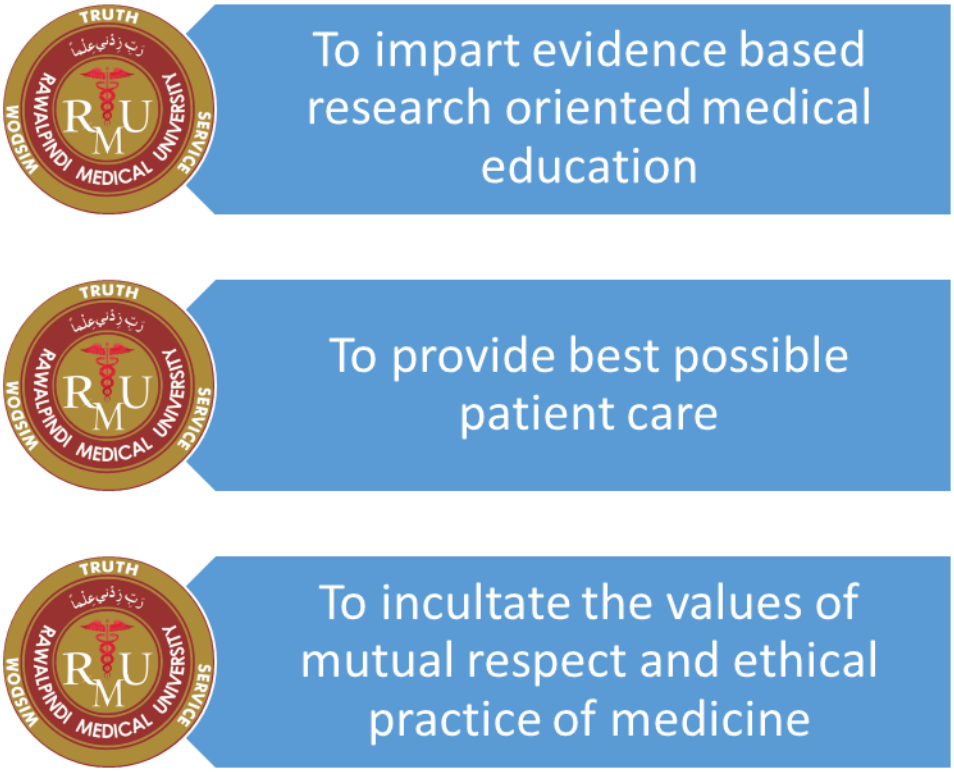
Department of Medical Education

Log Book

Log Book

Dedicated to Hazrat Muhammad (S.A.W)

Mission and Vision of RMU



Early Clinical Exposure is a groundbreaking initiative that will revolutionize the way we educate our future healthcare professionals. In embracing this innovative approach, we aim to provide students with invaluable hands-on experience from the very beginning of their medical journey. By immersing in clinical settings early on, students will develop a deeper understanding of patient care, clinical decision-making, and the intricacies of the healthcare system.

This curriculum not only enriches the academic experience but also cultivates essential skills such as communication, empathy, and teamwork—qualities that are integral to becoming competent and compassionate physicians. I encourage both students and faculty to embrace this transformative initiative wholeheartedly. Together, let us embark on this journey towards excellence in medical education and patient care.

Prof. Dr. Muhammad Umar
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The Early Clinical Exposure program is an integral part of the medical curriculum, introducing clinical skills to 1st and 2nd-year MBBS students. By bridging theoretical knowledge with practical application, it fosters communication, professionalism, and patient-centered care while providing an understanding of clinical environments. The accompanying logbook serves as a structured tool to document skill acquisition and monitor student progress, enhancing reflective learning and assessment.

In the 1st year, students focus on acquiring foundational skills such as hand hygiene, basic life support, injection administration, and musculoskeletal, cardiovascular, and respiratory system examinations. These essential skills lay the groundwork for patient safety, aseptic techniques, and clinical assessment, ensuring students are comfortable in healthcare settings and capable of engaging with patients confidently.

The 2nd year builds upon these basics, introducing more advanced skills such as abdominal, neurological, and thyroid examinations, catheterization, and assessments of the renal and dermatological systems. These skills sharpens students' diagnostic abilities and prepares them for advanced clinical training in subsequent years, ensuring they develop into competent, empathetic physicians equipped for high-quality patient care.

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Introduction

Early clinical exposure helps students understand the relevance of their preclinical studies by providing real-world contexts. This can enhance motivation and engagement by showing students the practical application of their theoretical knowledge. Early exposure allows students to begin developing essential clinical skills from the start of their education. This includes not only technical skills but also crucial soft skills such as communication, empathy, and professionalism. Direct interaction with patients early in their education helps students appreciate the complexities of patient care, including the psychological and social aspects of illness. Early exposure to various specialties can aid students in making informed decisions about their future career paths within medicine.

Early clinical experiences contribute to the development of a professional identity, helping students see themselves as future physicians and understand the responsibilities and ethics associated with the profession. This can help reduce the anxiety associated with clinical work by familiarizing students with the clinical environment. It can build confidence in their abilities to interact with patients and healthcare professionals. Engaging with real-life clinical situations early on encourages the development of critical thinking and problem-solving skills, which are essential for medical practice. It helps bridge the gap between theoretical knowledge and practical application, leading to a more integrated and holistic approach to medical education. It allows students to observe and understand how healthcare systems operate, including the challenges and limitations faced in different settings.: Early patient interaction emphasizes the importance of patient-centered care from the outset, underscoring the importance of treating patients as individuals with unique needs and backgrounds. Practical experiences can enhance long-term retention of knowledge as students are able to connect theoretical learning with clinical experiences.: Early clinical experiences often involve working in multidisciplinary teams, which fosters a sense of collaboration and understanding of different roles within healthcare.

In summary, early clinical exposure in medical education is pivotal for the holistic development of medical students, providing them with a strong foundation of practical skills, professional attitudes, and a deep understanding of patient-centered care.

Vision

1. To create a seamless integration of theoretical knowledge and clinical skills, where students can apply classroom lessons in real-world healthcare settings from the start of their education. This approach aims to break down the traditional barriers between preclinical and clinical phases of medical training.
2. To shape well-rounded healthcare professionals who are not only clinically competent but also empathetic, ethical, and communicative. It emphasizes the development of soft skills, such as empathy, teamwork, and patient communication, alongside hard clinical skills.
3. To foster a culture of innovation and adaptability in future healthcare professionals. As medicine is a rapidly evolving field, students should be prepared to continually update their knowledge and adapt to new technologies and treatments.
4. To instill a strong foundation in patient-centered care, where students learn to put the needs and values of patients at the forefront of their clinical decision-making process.
5. Encouraging students to develop their professional identity from the outset of their training, helping them to understand and embody the roles, responsibilities, and ethical standards of the medical profession.
6. To promote understanding and collaboration among different healthcare disciplines, recognizing that modern healthcare is a team effort requiring coordinated multi-disciplinary approaches.
7. Encouraging an inclination towards scientific inquiry and research, integrating research skills early in the module to foster a mindset of evidence-based practice.
8. To equip students with a global perspective on health, understanding both local and international health challenges, and preparing them for a career in an increasingly interconnected world.

Mission

The mission of the early clinical module is to profoundly transform medical education by integrating clinical experiences from the very beginning. This approach aims to enrich the learning process, making it more relevant and engaging by immediately applying theoretical knowledge to real-world clinical settings. It focuses on developing essential clinical skills, fostering empathy, and ensuring patient-centered care.

The module is designed to nurture a strong professional identity and ethical grounding in students, preparing them for the realities of a career in medicine. It encourages adaptability, resilience, and a commitment to lifelong learning in the face of the ever-evolving field of healthcare. By exposing students to a variety of medical specialties and healthcare environments early on, it also aids them in making more informed career choices. Overall, this module seeks to produce well-rounded, competent, and compassionate healthcare professionals ready to meet the challenges of modern medicine.

Aim and Objectives

1. To provide students with the opportunity to start developing essential clinical skills, such as basic patient examination, history taking, and simple procedural skills.
2. To bridge the gap between theoretical knowledge and its practical application. This helps students understand how their preclinical learning is relevant to clinical settings.
3. To instill a sense of professionalism and an understanding of medical ethics from the very beginning of medical training. This includes aspects such as patient confidentiality, empathy, and communication skills.
4. To emphasize the importance of patient-centered care, helping students understand the patient's perspective, and the impact of illness on patients and their families.
5. To introduce students to the workings of the healthcare system, including the roles of various healthcare professionals and the challenges faced in delivering effective care.
6. To encourage students to engage in reflective practice and self-assessment, fostering a habit of lifelong learning and continuous improvement in their professional skills.
7. To expose students to the multidisciplinary nature of healthcare, teaching them the value of teamwork and collaboration with other healthcare professionals.
8. To provide exposure to a range of clinical environments, such as hospitals, primary care clinics, and community health centers, to give students a broader understanding of different aspects of healthcare.
9. To allow students to explore various medical specialties early in their education, aiding in informed career decision-making later on.
10. To help students build confidence in their clinical abilities and reduce the anxiety associated with transitioning from theoretical learning to clinical practice.
11. To cultivate empathy and compassion towards patients, which are key components of effective patient care.
12. To encourage the development of critical thinking and problem-solving skills essential for clinical practice.

Outcomes

1. Early clinical experiences can help students understand the clinical relevance of the basic sciences they are studying. This integration of theoretical knowledge with practical application can deepen their understanding and retention of key concepts.
2. Engaging with patients and healthcare professionals early in their training helps students develop effective communication skills, which are crucial for patient care and interprofessional collaboration.
3. Students get an opportunity to start developing essential clinical skills, such as history taking, physical examination, and clinical reasoning, from the beginning of their medical education.
4. Early clinical exposure can increase students' motivation and interest in their studies by providing a clear context for the relevance of their coursework to their future roles as doctors.
5. Interacting with patients and healthcare teams early in their training can aid students in forming their professional identity and understanding the roles and responsibilities of being a physician.
6. Exposure to real-world clinical scenarios can help students develop critical thinking and decision-making skills.
7. Students begin to encounter and learn to manage the emotional and ethical challenges inherent in medical practice earlier, which can prepare them for the realities of their profession.
8. Exposure to various medical specialties and settings can aid students in making informed decisions about their future career paths.
9. Long-term, students trained with early clinical exposure may develop into more competent and empathetic physicians, potentially leading to better patient outcomes.
10. Engaging in clinical settings early can spark an interest in clinical research, leading to contributions in medical science.

Guidelines for Using the Clinical Skills Logbook

This logbook serves as a vital tool for students to document their progress in learning core clinical skills during their Early Clinical Exposure (ECE) rotations. Each skill included in the logbook is linked to an Entrustable Professional Activity (EPA)**,** representing a key clinical task that students must demonstrate competently.

Each skill is assessed according to Miller's Pyramid, a widely used framework for evaluating clinical competence. Miller's Pyramid has four progressive levels:

- **Knows**: The student understands the theoretical knowledge related to the skill.
- **Knows How**: The student can explain how the skill should be performed.
- **Shows**: The student demonstrates the skill in a simulated or clinical setting.
- **Does**: The student performs the skill independently and effectively in real-life scenarios.

Students are expected to actively engage with their assigned skills during clinical rotations. For each skill, the logbook outlines specific steps to be performed, ensuring a structured and standardized approach to learning. The clinical facilitator plays a critical role in this process,

teaching the skill, assessing the student's performance, and providing constructive feedback. After the assessment, the facilitator will record the student's level of achievement by marking the relevant category: "Not Done," "Done," or "Well Done." Detailed comments from the facilitator can further guide the student in refining their techniques. Students should proactively seek feedback, clarify doubts, and practice under supervision to build their confidence and competence in core skills.

To ensure thorough documentation, students must obtain their facilitator's signature for each skill after it is completed. The facilitator's responsibilities extend beyond assessment; they include coaching students on the correct techniques, addressing errors, and ensuring understanding through active questioning and demonstration. This logbook needs to be certified by Department of Medical Education at the end of each block.

Students are encouraged to regularly review their progress in the logbook, use it as a reflection tool, and identify areas for improvement. By adhering to this process, the logbook not only serves as a record of competency but also reinforces a culture of self-directed learning and accountability in clinical practice.

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Skill-7: Examine Joints of the Upper Limb

Certificate of Completion

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Foundation Module Skills

Skill-1: Hand Washing

Entrustable Professional Activity: Demonstrate steps of hand washing.

Miller's Level: Shows

Task	Assessment		
	Not Done	**Done**	**Well Done**

The Procedure
• Turn on the hot and cold laps with your elbows and wait till the water is warm.
• Thoroughly wet your hands.
• Apply liquid soap or disinfectant from the dispenser. Liquid soap is used in most hospital situations. Disinfectants include aqueous chlorhexidine or povidone iodine.
• Alcohol hand rubs offer a practical alternative to soaps and disinfectants.
• Wash your hands using the Ayliffe hand washing technique:
  o Palm to palm.
  o Right palm over left dorsum and left palm over right dorsum.
  o Palm to palm with fingers interlaced.
  o Back of fingers to opposing palms with fingers interlocked.
  o Rotational rubbing of right thumb clasped in left palm and left thumb clasped in right palm.
  o Rotational rubbing, backwards and forwards, with clasped fingers of right hand in left palm and clasped fingers of left hand in right palm.
• Rinse your hands thoroughly.
• Turn the taps off with your elbows.
• Dry your hands with a paper towel and discard it in the foot-operated bin, remembering to use the pedal rather than your clean hands!
• Consider applying an emollient.			

Level of Satisfaction			

Comments:_____

_____

Facilitator Name: _____

Designation: _____

Unit, Department, Hospital: _____

Date and Sign: _____

Skill-2: Wearing Gloves

Entrustable Professional Activity: Demonstrate the process of wearing gloves.

Miller's Level: Shows

Task	Assessment		
	Not Done	**Done**	**Well Done**
Before Starting Washed hands. Preparation: gloves, in place			
The Procedure • Pick up one glove and place the palm away from you. Slide the fingers under the glove cuff and spread them so that a wide opening is created. Keep thumbs under the cuff. • The thrust your hand into the glove. Do not release the glove yet • Gently release the cuff (do not allow the cuff to snap sharply) while unrolling it over the wrist. • Proceed with the other glove using the same technique			
Level of Satisfaction			

Comments:_____
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Facilitator Name: _____
Designation: _____
Unit, Department, Hospital: _____
Date and Sign: _____

Skill-3: Providing Basic Life Support in Adults

Entrustable Professional Activity: Demonstrate the steps of Basic Life Support (BLS) in Adults

Miller's Level: Shows

Task	Assessment		
	Not Done	**Done**	**Well Done**
• Make sure the victim, and bystanders, and you are safe. • Check the victim for a response. Gently shake his shoulders and ask loudly, Are you all right? **If he responds:** • leave him in the position in which you find him provided there is no further danger. • Try 10 find out what is wrong with him and gel help if needed. • Reassess him regularly. **If he does not respond:** • Shout for help. • Turn him onto his back and open the airway using the head-tilt, chin lift technique. • Place your hand on his forehead and gently tilt his head back. • With your fingertips under the point of his chin, lift the chin to open the airway. • Holding his airway open, put your ear 10 his mouth. Listen. feel, and look for breathing for no more than 10 seconds. If you have any doubt about whether breathing is normal assume that it is not. • Agonal breathing (occasional gasps, slow, laboured. or noisy breathing) Is common in the earty stages of cardiac arrest and should not be mistaken for a sign of life			
If he is breathing normally: • Turn him into the recovery position. • Send or go for help, or call for anmbulance. • Check for continued breathing. **If he is not breathing normally:** • Ask someone to call for an ambulance or, if you are on your own, do this • yourself: you may need to leave the victim. • Deliver 30 chest compressions followed by 2 rescue breaths. • To deliver chest compressions: • Kneel by the side of the victim. • Place the heel of one hand in the centre of the victim's chest. • Place the heel of the other hand on lop of the first hand. • Interlock the fingers of your hands and ensure that pressure is not applied on the victim's ribs, bottom end of his chest bone, or upper abdomen. • Position yourself vertically above the victim's chest and, with your arms straight, press down on the sternum 4-5 cm. • After each compression, release all the pressure on the chest without losing contact between your hands and the sternum. Repeat at a rate of about l0 per minute. • Compression and release should take an equal amount of time. **To deliver rescue breaths:** • After 30 compressions, again open the airway using head tilt and chin lift. • Pinch the soft part of the victim's nose dosed using the index finger and thumb of the hand on his forehead.			

• Allow his mouth to open, but maintain chin lift. • Take a normal breath and place your lips around his mouth, making sure that you have a good seal. • Blow steadily into his mouth whilst watching for his chest to rise. Take about 1 second to make his chest rise. • Maintaining head tilt and chin lift, take your mouth away from him and watch for his chest to fall. • Deliver a second rescue breath and return to chest compressions without delay. • Continue with chest compressions and rescue breaths at a ratio of 0:2. • Stop to recheck the victim only if he starts breathing normally. • If your rescue breaths do not make the chest rise as in normal breathing, check • the victim's mouth and remove any obstruction and re-check that there is adequate head tilt and chin lift. Do not attempt more than 2 rescue breaths each time before returning to chest compressions. • If there is more than one rescuer present, another should take over CPR every 2 minutes to prevent fatigue. • If the rescuer is unable or unwilling to give rescue breaths, he can give chest compressions at a rate of 100 compressions per minute, stopping only to recheck the victim if he starts breathing normally. • Continue resuscitation until qualified help arrives or until the victim starts breathing normally or until exhaustion.			
The recovery position • Remove the victim's spectacles. • Kneel beside the victim and make sure that both his legs are straight. • Place the arm nearest to you out at right angles to his body, elbow bent, with the • hand palm uppermost. • Bring the far arm across the chest, and hold the back of the hand against the victim's cheek nearest to you. • With your other hand, grasp the far leg just above the knee and pull it up, keeping the foot on the ground. • Keeping his hand pressed against his cheek, pull on the far leg to roll the victim towards you and onto his side. • Adjust the upper leg so that both the hip and knee are bent at right angles. • Tilt the head back to ensure that the airway remains open. • Adjust the hand under the cheek, if necessary, to keep the head tilted.			
Level of Satisfaction			

Comments:_____
_____

Facilitator Name: _____
Designation: _____
Unit, Department, Hospital: _____
Date and Sign: _____

Skill-4: Scrubbing for Operation Theatre.

Entrustable Professional Activity: Demonstrate the steps to scrub for operation theatre.
Miller's Level: Shows

Task	Assessment		
	Not Done	**Done**	**Well Done**
Before handwashing • Change into scrubs. • Put on overshoes. • Don a theatre cap, tucking all your hair underneath it. • Remove all items of jewellery, including your watch. • Enter the scrubbing room. • Put on a face mask, and ensure that it covers both the nose and the mouth. • Open a sterile gown pack without touching the gown. • Lay out a pair of sterile gloves without touching the gloves			
Handwashing • Open a brush packet containing a nail brush and nail pick. • Open the taps. **The social wash** • Wash your hands with soap, lathering up your arms to 2 cm above the elbows **The second wash** • Use the nail pick from the brush packet to clean under your fingernails. • Dispense soap onto the sponge side of the brush and use the sponge and scrub from the fingertips to 2 cm above the elbows (30 seconds per arm). • Dispense soap using your elbow or a foot pedal and not your hands. • To rinse, start from your hands and move down to your elbows so that the rinse water does not recontaminate your hands. **The third wash** • Using the brush side of the brush, scrub your fingernails 10 seconds per arm). • Using the sponge side of the brush, scrub: • Each finger and interdigital space in turn 10 seconds per arm). • The palm and back of your hands 10 seconds per arm). • Your forearm, moving up circumferentially to 2 cm above the elbows (10 seconds per arm). • Remember to keep the brush well soaped at all times. • To rinse, start from your hands and move down to your elbows. • Turn the taps off with your elbows.			
After handwash • Use the towels in the gown pack to dry your arms from the fingertips down. • Pick up the gown from the inside, ensuring that it does not touch anything. • Put your arms through the sleeves, but do not put your hands through the cuffs. • Put on the gloves without touching the outside of the gloves. • Ask an assistant to tie up the gown for you. • After scrubbing up, keep your hands in front of your chest and do not touch any nonsterile areas, your mask and hat included.			
Level of Satisfaction			

Comments:_____
_____
Facilitator Name: _____
Designation: _____
Unit, Department, Hospital: _____
Date and Sign: _____

Musculoskeletal System-1 Module Skills
Skill-5: Motor System of The Upper Limbs Examination

Entrustable Professional Activity: Examine the motor system in upper limbs
Miller's Level: Shows

Task	Assessment		
	Not Done	**Done**	**Well Done**
Before starting • Introduce yourself to the patient. • Explain the examination and ask for his permission to carry it out. • Position him and ask him 10 expose his arms. • Ask if he is currently experiencing any pain.			
Inspection • Look for abnormal posturing. • look for abnormal movements such as tremor, fasciculation, dystonia, athetosis. • Assess the muscles of the hands, arms, and shoulder girdle for size, shape. And symmetry. You can also measure the circumference of the arms.			
Tone • Ensure that the patient is not in any pain. • Test the tone in the upper limbs by holding the patients hand and simultaneously pronating and supinating and flexing and extending the forearm. If you suspect increased lone, ask the patient to clench his teeth and re-test. Is the increased tone best described as spasticity (clasp-knife) or as rigidity (lead pipe)? Spasticity suggests a pyramidal lesion, rigidity suggests an extra-pyramidal lesion.			
Power • Test muscle strength for shoulder abduction. elbow flexion and extension, Wrist flexion and extension, finger flexion, extension, abduction and adduction, and thumb abduction and opposition. Compare muscle strength on both sides, and grade it.			
Reflexes • Test biceps, supinator, and triceps reflexes with a tendon hammer. Compare both sides. If a reflex cannot be elicited, ask the patient to clench his teeth and re-test (reinforcement)			
Level of Satisfaction			

Comments:_____
_____
Facilitator Name: _____
Designation: _____
Unit, Department, Hospital: _____
Date and Sign: _____

Skill-6: Sensory System of The Upper Limbs Examination

Entrustable Professional Activity: Examine the sensory system of upper limbs
Miller's Level: Shows

Task	Assessment		
	Not Done	**Done**	**Well Done**
Before starting • Introduce yourself to the patient. • Explain the examination and ask for his permission to carry it out. • Position him sa that he is comfortably seated and ask him to expose his arms. • Ask if he is currently experiencing any pain.			
The examination • To examine the sensory system, test light touch, pain. vibration sense, and proprioception. • Do not forget to Inspect the arms before you start. • **Light touch.** Ask the patient to close his eyes and apply a wisp of cotton wool to the sternum and then to each of the dermatomes of the arm. Do not forget to compare both sides as you go along. • **Pain.** Ask the patient to close his eyes and apply a sharp object - ideally a neurological pin - to the sternum and then to each of the dermatomes of the arm. Compare both sides as you go along. • **Vibration.** Ask the patient to dose his eyes and apply a vibrating 128 Hz or 256 Hz luning fork (not the smaller 512 Hz tuning fork used in hearing tests) to the sternum and then over the bony prominences of the upper arm. Compare both sides as you go along. • **Proprioception.** Ask the patient to close his eyes. Hold one of his fingers by its sides and move it at the distal interphalangeal joint, asking him to identify the direction of each movement. Before you do this, do ensure that the patient does not suffer from arthritis or from some other painful condition of the hand.			
After the examination • Thank the patient. • Ensure that he is comfortable. • Ask to cafry out a lull neurological examination. • Summarise your findings and offer a differential diagnosis.			
Level of Satisfaction			

Comments:_____
_____
Facilitator Name: _____
Designation: _____
Unit, Department, Hospital: _____
Date and Sign: _____

Skill-7: Examine Joints of the Upper Limb

Entrustable Professional Activity: Examine the shoulder and hand.
Miller's Level: Knows How

Task	Assessment		
	Not Done	**Done**	**Well Done**
Introduction • Introduce self • Confirm identity • Explain purpose of exam and gain consent			
Examination of Shoulder Joint **Inspection** • front, back and sides Scars, asymmetry of shoulder girdle Swelling, muscle wasting **Feel** • Sternoclavicular joint, clavicle, acromioclavicular joint, spine of scapula – • ?tender ?swelling ?temperature. Feel muscle bulk of deltoid **Movement (active and passive)** • Flexion: 'arms forward above your head' • Extension: 'arms backwards' • Abduction: 'arm away from your side' • Adduction: 'arm across your body' • External rotation: 'flex elbow 90 degrees, then move apart in an arc motion' • Internal rotation: 'scratch your back as far up as you can' **Function and power** • Infraspinatus + teres minor: external rotation against resistance • Supraspinatus: empty can test • Subscapularis: push off against resistance from base of spine • Rotator cuff impingement: Hawkins test			
Examination of Hand **Inspection** • Walking aids/hand aids • Hands (palmar/dorsum): scars, wasting, erythema, Duyputryen's contracture • Nails: pitting, vasculitic changes • Joints: proximal interphalangeal joint (PIP)/distal interphalangeal joint (DIP)/ thumb/metacarpophalangeal (MCP) joint • Wrist: radial/ulnar deviation • Elbows: nodules, psoriasis, bursitis			

Feel (ask if any pain) • Hands: temperature, pain, swellings • DIP/PIP: Heberden's/Bouchard's, gouty tophi, rheumatoid nodules • Must palpate each individual DIP/PIP and MCP joint **Movement** • Active • Prayer sign • Reverse prayer sign • 'Make a fist' • Abduction/adduction of fingers • Flexion/extension of thumb • Passive • Flexion/extension of fingers • Abduction/adduction of fingers • Flexion/extension of wrist • Flexion/extension of elbows **Sensation** • Examine sensation in ulnar, median and radial nerve distributions **Function tests** • Pick up a coin • Undo and fasten button on shirt (if available) **Special tests** • Froment's sign (tests for ulnar nerve palsy, in particular the action of adductor pollicis muscle) Offer to test function of flexor digitorum superficialis and flexor digitorum profundus of digits individually.			
Level of Satisfaction			

Comments:_____

_____

Facilitator Name: _____

Designation: _____

Unit, Department, Hospital: _____

Date and Sign: _____

Block 2 Skills

Musculoskeletal System-2 Module Skills

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Skill-9: Sensory Examination of the Lower Limbs
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Hematopoietic and Lymphatic Module Skills

Skill-12: Taking temperature
Skill-13: Venipuncture
Skill-14: Giving a Blood Transfusion
Skill-15: Examine lymph nodes.

Certificate of Completion

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Musculoskeletal System-2 Module Skills
Skill-8: Motor Examination of Lower Limbs

Entrustable Professional Activity: Examine the motor system in the lower limbs
Miller's Level: Shows

Task	Assessment		
	Not Done	**Done**	**Well Done**
Before starting • Introduce yourself to the patient. • Explain the examination and ask for his permission to carry it out. • Position him and ask him to expose his legs. • Ask if he is currently experiencing any pain			
Inspection • Look for deformities of the foot. • Look for abnormal posturing. • Look for fasciculation. • Assess the muscles of the legs for size, shape, and symmetry. You can also measure the circumference of the quadriceps or calves			
Tone • Ensure that the patient is not in any pain. • Test the tone in the legs by rolling the leg on the bed, by flexing and extending the knee, or by abruptly lifting the leg at the knee.			
Power • Test muscle strength for hip flexion, extension, abduction and adduction, knee flexion and extension, plantar flexion and dorsiflexion of the foot and big toe, and inversion and eversion of the forefoot. Compare muscles strength on both sides, and grade it			
Reflexes • Test the knee jerk and ankle jerk with a tendon hammer. Compare both sides. • If a reflex cannot be elicited. ask the patient to clench his teeth and retest (reinforcement). • Test for clonus by holding up the ankle and rapidly dorsiflexing the foot. • Test for the Babinsky sign (extensor plantar reflex) using the sharp end of a tendon hammer or an orange stick. The sign is positive if there is extension of the big toe at the MTP joint. So called "upgoing plantars".			
Gait • If he can. ask the patient to walk to the end of the room and to turn around and walk back.			
After the examination • Thank the patient. • Ensure that he is comfortable. • Ask to carry out a full neurological examination. • If appropriate. indicate that you would order some key investigations, e.g. CT, MRI, nerve conduction studies. electromyography, etc. • Summarise your findings and offer a differential diagnosis.			
Level of Satisfaction			

Comments: _____
Facilitator Name: _____
Designation: _____
Unit, Department, Hospital: _____
Date and Sign: _____

Skill-9: Sensory Examination of the Lower Limbs

Entrustable Professional Activity: Perform sensory system examination of the lower limb
Miller's Level: Shows

Task	Assessment		
	Not Done	**Done**	**Well Done**
Before starting • Introduce yourself to the patient. • Explain the examination and ask for his permission. • Position him on a couch and ask him to expose his legs. • Ask if he is currently experiencing any pain.			
The examination • To examine the sensory system, test light touch, pain. vibration sense, and proprioception. • Do not forget to inspect the legs before you start. • **Light touch:** Ask the patient to close his eyes and apply a wisp of cotton wool to the sternum and then to each of the dermalomes of the leg. Do not forget to compare both sides as you go along. • **Pain.** Ask the patient to close his eyes and apply a sharp object - ideally a neurological pin -to the sternum and then to each of the dermatomes of the leg. Compare both sides as you go along. • **Vibration:** Ask the patient to close his eyes and apply a vibrating 128 Hz or 256 Hz tuning fork (not the smaller 512 Hz tuning fork used in hearing tests) to the sternum and then over the bony prominences oflhe leg. Compare both sides as you go along. • **Proprioception:** Ask the patient to close his eyes. Hold one of his toes by its sides and move it at the interphalangeal joint. asking him to identify the direction of each movement. Before you do this. ensure that the patient does not suffer from arthritis. goul, or some other painful condition of the foot.			
After the examination • Thank the patient. • Ensure that he is comfortable. • Ask to carry out a full neurological examination. • If appropriate, indicate that you would order some key investigations, e.g. CT. • MRI. nerve conduction studies, electromyography, etc. • Summarise your findings and offer a differential diagnosis.			
Level of Satisfaction			

Comments:_____
_____

Facilitator Name: _____
Designation: _____
Unit, Department, Hospital: _____
Date and Sign: _____

Skill-10: Examine Joints of the Upper Limb

Entrustable Professional Activity: Examine the hip knee and ankle joints
Miller's Level: Shows

Task	Assessment		
	Not Done	**Done**	**Well Done**
Introduction • Introduce self and confirm identity • Explain purpose of exam and gain consent			
Examination of Hip **Close inspection** • Front: scars, pelvic tilt, quadriceps wasting • Side: lumbar lordosis (normal, loss of, hyperlordosis) • Back: gluteal wasting • Gait: speed, turning (antalgic, high stepping, Trendelenburg) **Palpation** • Feel for tenderness/warmth • Palpate greater trochanter – tenderness (bursitis) • Measure apparent leg length – xiphisternum to tip of medial malleolus • Measure true leg length – ASIS to tip of medial malleolus **Movement** • Active then passive • Flexion • Extension (best done in prone position) • Abduction • Adduction • Internal rotation: 'keep your knees together and spread ankles' • External rotation: 'cross your legs over each other **Trendelenburg's sign** • Stand on one foot. If hip of non-weight-bearing leg drops, the sign is positive and suggests weak abductor muscles • (gluteus medius and minimus) of the contralateral leg. **Thomas test** • Place hand under patient's spine. Ask patient to bring knee up to chest; this should obliterate the lumbar lordosis. Once leg is in full flexion, observe the opposite leg – sign is positive if the leg begins to flex. • **FABER test** • Flexion, Abduction, External Rotation. Place the patient's leg as shown, place hand on the contralateral anterior superior iliac spine to stabilise, then apply a downward force. Pain in the contralateral joint suggests contralateral sacroiliac joint pathology.			
Knee Examination **Close inspection**			

• Front: scars (knee replacement), swellings, asymmetry, valgus or varus • Back: popliteal swellings **Gait** • Speed, symmetry, turning, antalgia **Palpation** • Supine • Temperature • Joint lines (knees in slight flexion): tender, crepitations • Collateral ligaments: medial and lateral Patello-femoral joint • Quadriceps circumference: 2.5 cm above tibial tubercle • Popliteal swellings: Baker's cyst **Movement** • Active then passive: flexion/extension • Passive: valgus/varus **Effusion test** • Small effusion bulge test: empty the medial joint recess using a wiping motion; now tap lateral recess; watch the medial recess for any bulging. • Large effusion patella tap test: squeeze fluid from anterior thigh towards patella, then press on the patella for any fluid. **Anterior draw test** • Flex hip to 45 degrees/knee to 90 degrees. • Stabilise foot and grasp tibia below the joint line and draw tibia forward. • If there is forward movement, test is positive and suggests anterior cruciateligament tear. **Posterior draw test** • Flex hip to 45 degrees/knee to 90 degrees. • Stabilise foot and grasp tibia below the joint line and push tibia posteriorly. • If there is posterior movement, test is positive and suggests posterior cruciate ligament tear. **Posterior cruciate ligament sag test** • Flex both knees at 90 degrees. View the knees from the side to compare position of the anterior tibia. If a sag of the tibia is noted on one side, the test is positive. • **McMurray test** • Hold and flex knee completely with one hand and hold sole with other hand. • Put hand on lateral knee and put in valgus stress. • Rotate leg externally while extending the knee. • If pain/click is felt – test is positive – suggests medial meniscus tear. • To detect lateral meniscus tear, place leg in internal rotation while extending.			

Foot and Ankle Examination **General inspection** • Alignment of toes – normal/valgus/varus • Foot arches – pas planus/pas cavas • Shoes- uneven wear **Gait** • Speed, symmetry, turning, antalgia **Close inspection (supine)** • Dorsal – nails, skin, toe alignment, toe clawing, hallux valgus • Plantar – calluses **Palpation** • Temperature – ankle and foot • Peripheral pulse • Metatarsophalangeal joint/ tarsal joint/ankle joint/subtalar • joint (squeeze for tenderness) • Achilles tendons – for tenderness **Move** • Active then passive (each limb) • Subtalar joint – Inversion, eversion • Ankle joint – dorsiflexion, plantarflexion • Hallux – dorsiflexion, plantar flexion • Midtarsal joint **Simmond's test** • Patient lies prone with feet hanging off the edge of the bed. • Squeeze calf, if normal the foot should plantarflex, in achilles tendon rupture the foot will fail to do this			
After the examination • Summary • Thank patient, offer to redress			
Level of Satisfaction			

Comments:_____

_____

Facilitator Name: _____

Designation: _____

Unit, Department, Hospital: _____

Date and Sign: _____

Skill-11: Giving Injections

Entrustable Professional Activity: Demonstrate the procedure of giving intramuscular, subcutaneous and intradermal injections.

Miller's Level: Shows

Task	Assessment		
	Not Done	**Done**	**Well Done**
Before starting • Introduce yourself to the patient. • Discuss the procedure and obtain consent. • Gather the appropriate equipment.			
The equipment • Non-sterile gloves. 0 21G (green) needle and 23G (blue) • Drug. or 25G (orange) needle. • Diluent (usually sterile waler or Alcohol swab saline or cotton wool • Appropriately sized syringe • Sharps bin			
The procedure • Consult the prescription chart and check: • The identity of the patient. • The prescription: validity, drug, dose, diluent (if appropriate), route of administration, date and time of administration. • Drug allergies. anticoagulation. • Check the doses and expiry dates of the drugs on their vials. • Wash your hands and don the gloves. • Attach a 21G needle to the syringe and draw up the correct volume of the drug, making sure to expel any air in the syringe. • Remove the needle and attach a needle to the syringe • Ask the patient to expose his upper arm or leg and ensure that the target muscle is completely relaxed. • Identify landmarks in an attempt to avoid injuring nerves and vessels. • Clean the exposed site with an alcohol wipe and allow it to dry.			
Intramuscular Injection technique • For older children and adults, the densest portion of the deltoid muscle (above the armpit and below the acromion) is the preferred IM Injection site. • The gluteal muscle is best avoided as the needle may not reach the muscle and there is a risk of damage to the sciatic nerve. not to mention the general embarrassment of the thing. In infants and toddlers, the vastus lateralis muscle in the anterolateral aspect of the middle or upper thigh is the preferred IM injection site.			

• With your free hand, slightly stretch the skin at the site of injection. • Introduce the needle at a 9O degree angle to the patient's skin in a quick firm motion. • Pull on the syringe's plunger to ensure that you have not entered a blood vessel. • If you aspirate blood, you need to start again with a new needle, and at a different site. • Slowly inject the drug and quickly remove the needle. • Dispose of the needle in the sharps bin. • If bleeding occurs, apply gentle pressure over the bleeding/injection site with some cotton wool.			
Subcutaneous injection technique • Bunch the skin between thumb and forefinger, thereby lifting the adipose tissue from the underlying muscle. • Insert the needle at a 40 degree angle in a quick. firm motion. • Release the skin. • Pull on the syringe's plunger to ensure that you have not entered a blood vessel. • Slowly inject the drug. • Dispose of the needle in the sharps bin. • Apply gentle pressure over the injection site with some colton wool			
Intradermal injection technique • Stretch the skin taut between thumb and forefinger. • Hold the needle so that the bevel is uppermost. • Insert the needle al a 15 degree angle, almost parallel to the skin. • Ensure that the needle is visible beneath the surface of the epidermis. • Slowly inject the drug. • A visible bleb should form. If not, immediately withdraw the needle and start • again. • Dispose of the needle in the sharps bin.			
Intravenous Drug Injection • Consult the prescription chart and check: • The identity of the patient. • The prescription: validity, drug, dose, diluent (if appropriate), route of administration, date and time of administration. • Drug allergies. • Look in the BNF and check the form of the drug, whether it needs reconstituting, • the type and volume of diluent required, and the speed of administration.			

• Check the name, dose and expiry date of the drug on the vial and the name and expiry date of the diluent. • Indicate that you would also ask a colleague to confirm the name, dose, and expiry date of the drug and the name and expiry date of the diluent. • Wash your hands and don the gloves. • Attach a 21G (green) needle to a syringe and draw up the correct volume of the diluent. • Reconstitute the drug with the diluent, ensuring that it is completely dissolved. • Draw up the reconstituted drug into the same syringe. • Remove the needle and attach a fresh 21G needle to the syringe • Apply a tourniquet to the model arm and select a suitable vein. • Clean the venepuncture site with an alcohol wipe. • Retract the skin with your non-dominant hand to stabilise the vein and insert the needle into the vein until a flashback is seen. • Undo the tourniquet. • Administer the drug at the correct speed. • Remove the needle from the vein and apply pressure on the puncture site using a piece of cotton wool. • Dispose of the needle in the sharps bin. • Remove the gloves and wash your hands.			
After the procedure • Ensure that the patient is comfortable. • Sign the prescription chart and record the date, time, drug, dose, and injection • site of the injection in the medical records. • Ensure that the patient is comfortable. • Ask him if he has any questions or concerns. • Thank him.			
Level of Satisfaction			

Comments:_____
_____

Facilitator Name: _____
Designation: _____
Unit, Department, Hospital: _____
Date and Sign: _____

Hematopoietic and Lymphatic Module Skills
Skill-12: Taking Temperature

Entrustable Professional Activity: Take temperature using a thermometer
Miller's Level: Shows

Task	Assessment		
	Not Done	**Done**	**Well Done**
Before Starting • Explain the Procedure: Inform the patient about the procedure and its purpose to gain consent. • Ensure Privacy: Maintain the patient's privacy by closing doors or using screens if needed. • Hand Hygiene: Wash or sanitize your hands thoroughly. • Check the Patient's Condition: Confirm the patient has not consumed hot or cold food/drinks or smoked in the past 15 minutes (if oral temperature is to be taken).			
The Equipment • Thermometer: Ensure the thermometer is functional and appropriate for the site (e.g., digital, infrared, or glass thermometer). • Disposable Covers: Use a disposable cover if required for hygiene. • Cleaning Supplies: Have disinfectant wipes or alcohol swabs to clean the thermometer. • Timer: Ensure access to a timer if the thermometer is not automated.			
The Procedure • Prepare the Thermometer: Turn on the thermometer, Apply a disposable cover, if necessary. • Select the Site: Decide the appropriate site for measurement (oral, rectal, axillary, tympanic, or temporal artery) based on the patient's condition and comfort. • Place the Thermometer: o Oral: Place the thermometer under the tongue and ask the patient to close their lips around it. o Rectal: Lubricate the tip and insert gently into the rectum (typically for infants or critically ill patients). o Axillary: Place the thermometer in the center of the armpit, ensuring the arm is pressed against the body. o Tympanic: Gently insert the probe into the ear canal, ensuring a proper seal. o Wait for Reading: Follow the device instructions to obtain an accurate reading (e.g., until the beep for digital thermometers).			
After the Procedure			

• Remove and Clean: Remove the thermometer carefully, Discard the disposable cover if used, Clean the thermometer with an alcohol swab or disinfectant as per protocol. • Record the Temperature: Note the temperature, time, and method (e.g., oral, rectal). • Inform the Patient: Communicate the result to the patient. • Hand Hygiene: Wash or sanitize your hands. • Document: Record the findings in the patient's medical chart or record for reference.			
Level of Satisfaction			

Comments:_____
_____

Facilitator Name: _____
Designation: _____
Unit, Department, Hospital: _____
Date and Sign: _____

Skill-13: Venipuncture

Entrustable Professional Activity: Detail the steps of drawing blood from a vein.
Miller's Level: Shows

Task	Assessment		
	Not Done	**Done**	**Well Done**
Before starting • Introduce yourself to the patient. • Explain the procedure and ask for his consent to carry it out. • Ask him which arm he prefers 10 have blood taken from. • Ensure that he is comfortable.			
The equipment In a tray, gather • A pair of non-sterile gloves. • A tourniquet. • Alcohol wipes. • A 12G needle and needle-holder. • The bottles appropriate for the tests that you are sending for (these vary from • hospital to hospital, but generally yellow for biochemistry, purple for haematology, pink for group and save and crossmatch, blue for dotting, grey for glucose, and black for ESR). • Cotton wool.			
The procedure • Select a vein: the bigger and straighter the better. • Apply the tourniquet, and re-check the vein. • Put on gloves. • Clean the venepuncture site using the alcohol wipes. Explain that the alcohol • wipes may feel a little cold. • Attach the needle to the needle holder. • Tell the patient to expect a "sharp scratch". • Retract the skin to stabilise the vein and insert the needle into the vein. • Keeping the needle still, place a bottle on the needle-holder and let it fill. • Once all the necessary bottles are filled, release the tourniquet. • Remove the needle from the vein and apply pressure on the puncture site • Dispose of the needles in the sharps bin. • Remove gloves.			
After the procedure • Ensure that the patient is comfortable. • Thank the patient. • label the bottles (at least: patient's name, date of birth, and hospital number; date and time of blood collection). • Fill in the form (at least: patient's name, date of birth, and hospital number; date of blood collection; tests required).			
Level of Satisfaction			

Comments:_____
_____

Facilitator Name: _____
Designation: _____
Unit, Department, Hospital: _____
Date and Sign: _____

Skill-14: Giving a Blood Transfusion

Entrust able Professional Activity: Steps required for doing a blood transfusion.
Miller's Level: Knows How

Task	Assessment		
	Not Done	**Done**	**Well Done**
Before Starting • Introduce yourself to the patient. • Explain the requirement for a blood transfusion and ensure that he is consenting. • Ensure that baseline observations have been recorded (pulse rale. Blood pressure, and temperature). • Canulate			
Sample collection • Confirm the patients name and date of birth and check his identity bracelet. • Extract 10 ml of blood into a pink tube. • Immediately label the tube and request form with the patient's identifying data: name, date of birth, and hospital number. • Fill out a blood transfusion form, specifying the total number of units required. • Ensure that the tube reaches the laboratory promptly.			
Blood transfusion prescription • Prescribe the number of units of blood required in the intravenous infusion section of the patients prescription chart. • Each unit of blood should be prescribed separately and be administered over a period of 4 hours. • If the patient is elderly or has a history of heart failure, consider prescribing 20 mg of oral frusemide with the second and fourth units of blood. • Arrange for the blood bag to be delivered. The blood transfusion must commence within 30 minutes of the blood leaving the blood refrigerator.			
Checking procedure • Ask a registered nurse or another doctor to go through the following checking procedures with you: • Positively identify the patient by asking him for his name, date of birth, and address. • Confirm the patient's identifying data and ensure that they match those on his identity bracelet, case notes, prescription chart, and blood compatibility report. • Record the blood group and serial number on the unit of blood and make sure that they match the blood group and			

serial number on the blood compatibility report and the blood compatibility label attached to the blood unit. • Check the expiry date on the unit of blood. • Inspect the blood bag for leaks or blood clots or discoloration.			
Blood administration • Attach one end of the transfusion giving set to the blood bag and run it through to ensure that any air in the tubing has been expelled. • Attach the other end of the giving set to the IV cannula. • Adjust the drip rate so that the unit of blood is administered over 4 hours (1 drop per second is equivalent to about 1 litre per 6 hours). • Sign the prescription chart and the blood compatibility report recording the date and time the transfusion was commenced. The prescription chart and blood compatibility report should also be signed by your checking colleague.			
Patient monitoring • Record the patient's pulse rate. blood pressure, and temperature at 15 and 30 minutes and then hourly thereafter. • Ensure that the nursing staff observe the patient for signs of adverse transfusion reactions such as fever. tachycardia. hypotension, urticaria. nausea, chest pain, and shortness of breath.			
Level of Satisfaction			

Comments:_____
_____

Facilitator Name: _____
Designation: _____
Unit, Department, Hospital: _____
Date and Sign: _____

Skill-15: Examine Lymph Nodes.

Entrustable Professional Activity: Examine lymph nodes in the Head & Neck, Axillary and Inguinal regions.
Miller's Level: Shows

Task	Assessment		
	Not Done	**Done**	**Well Done**
Before starting • Introduce yourself to the patient. • Explain the examination and ask him for consent to carry it out. • Position him appropriately and ensure that he is comfortable.			
The examination • Look at the lump and its location and any changes to the overlying skin, e.g. inflammation, tethering. • Ask the patient if the lump is painful before you palpate it. Is the pain only brought on by palpation or is it a more constant pain? • Palpate the lump in a rotary motion with the pads of your fingers. Does the lump feel warm at first louch? Now consider: o Number (solitary or multiple). o Size. o Shape. o Surface (smooth or irregular). o Consistency (e.g. soft, firm, hard, fluctuant, compressible, rubbery), o Mobility (fixation). • Transilluminate the lump by holding between the fingers of one hand and shining a pen torch to it with the other. A bright red glow indicates fluid whereas a dull or absent glow suggests a solid lesion. • If appropriate, determine whether the lump is pulsatile. This can be done by observing the lump carefully for pulsatile movements. palpating it, and/or auscultating it. • If appropriate. examine the draining lymph nodes.			
After the examination • Ask the patient if he has any questions or concerns. • Thank the patient. • Summarise your findings and offer a differential diagnosis. • If appropriate. suggest further investigations, e.g. aspirate, biopsy. Ultrasound, CT.			
Level of Satisfaction			

Comments:_____
_____
Facilitator Name: _____
Designation: _____
Unit, Department, Hospital: _____
Date and Sign: _____

Block 3 Skills

Cardiovascular Module Skills

Skill-16: Taking blood pressure
Skill-17: Canulation and setting up a drip
Skill-18: Cardiovascular System Examination
Skill-19: Recording an ECG

Respiratory Module Skills

Skill-20: Respiratory System Examination
Skill-21: Interpret Chest Radiographs
Skill-22: Using a Peak Expiratory Flow Rate meter
Skill-23: Using a Inhaler
Skill-24: Drug administration via a nebulizer

Certificate of Completion

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Cardiovascular Module Skills

Skill-16: Taking Blood Pressure

Entrustable Professional Activity: Demonstrate the procedure of taking blood pressure.
Miller's Level: Shows

Task	Assessment		
	Not Done	**Done**	**Well Done**
Wash hands			
Introduction • Introduce self • Confirm identity • Explain procedure and gain consent • Inform patient that inflation of cuff may feel uncomfortable • Expose: right or left arm • Position: sitting			
History • 'Have you had your blood pressure checked before?' • 'Have you been resting for at least 5 minutes?' • 'Do you know what your blood pressure is normally?' • 'Are you on any tablets to reduce your blood pressure?' • 'Do you have any questions before we begin?'			
Preparation • Cuff (appropriate size for arm), blood pressure sphygmomanometer, stethoscope			
Procedure • Place cuff around arm, align the arrow on the cuff (point of entry of tubes) with position of brachial artery. • Palpate the brachial/radial artery pulse and inflate cuff until pulse disappears. This is the reference systolic blood pressure. Add 20 mmHg for the inflating pressure. • Deflate cuff. • Place stethoscope on brachial artery and inflate cuff 20 mmHg above the reference systolic blood pressure at a rate of 2 mmHg/second until the first Korotkoff sound appears (= systolic blood pressure). Keep deflating until the sounds disappear (= diastolic blood pressure).			
After the procedure • Explain findings to the patient			
Level of Satisfaction			

Comments:_____
_____

Facilitator Name: _____
Designation: _____
Unit, Department, Hospital: _____
Date and Sign: _____

Skill-17: Cannulation and Setting up a drip

Entrustable Professional Activity: Cannulate a patient and set up a drip
Miller's Level: Shows

Task	Assessment		
	Not Done	**Done**	**Well Done**
Before the procedure • Introduce yourself to the patient. • Explain the procedure and ask for his consent 10 carry it out. • Gather equipment in a tray			

The equipment
• In a tray, gather:
  • A pair of non-sterile gloves.
  • A tourniquet.
  • Alcohol swabs.
  • An IV cannula of appropriate size. Size is primarily determined by the viscosity of the fluid to be infused and the required rate of infusion.
  • A pre-filled 5 ml syringe containing saline flush.
  • An adhesive plaster.
  • A sharps box.			

The procedure • Find a suitable vein. Try to avoid the dorsum of the hand and the antecubital fossa. • Apply the tourniquet to the arm and re-verify the vein. • Put on the gloves. • Clean the skin with an alcohol swab and let it dry. • Remove the cannula from its packaging and remove its cap. • Tell the patient to expect a "sharp scratch", • Anchor the vein by stretching the skin and insert the cannula at an angle of about 30 degrees. • Once a flashback is seen, advance the cannula and needle by about 2 mm. • Pull back slightly on the needle and advance the cannula into the vein. • Release the tourniquet. • Press on the vein over the tip of the cannula, remove the needle completely, and cap the cannula. • Immediately put the needle into the sharps box. • Apply the adhesive plaster to fix the cannula. • Flush the cannula			
After the procedure • Discard any rubbish. • Ensure that the patient is comfortable. • Thank the patient			
Level of Satisfaction			

Comments:_____
_____

Facilitator Name: _____
Designation: _____
Unit, Department, Hospital: _____
Date and Sign: _____

Skill-18: Cardiovascular System Examination

Entrustable Professional Activity: Examine the Cardiovascular System
Miller's Level: Shows

Task	Assessment		
	Not Done	**Done**	**Well Done**
Before starting • Introduce yourself 10 the patient. • Explain the examination and ask for his consent to carry it out. • Position him at 45 degrees. • Ensure that he is comfortable.			
The examination **General inspection** • From the end of the couch, observe the patients general appearance (age, state of health, nutritional status. and any other obvious signs). Is the patient breathless or cyanosed? • Inspect the precordium for the presence of any abnormal pulsation and the chest for any scars. A median sternotomy might have been performed for coronary artery bypass grafting, for valve surgery. or for the repair of a congenital defect. Don't miss a pacemaker if it is there!			
Inspection and examination of the hands o Take both hands noting: o Temperature. o Colour. o The presence of dubbing (endocarditis, cyanotic congenital heart disease). o The presence of splinter haemorrhages (subacute infective endocarditis). o The presence of any nail signs leukonychia - hypoalbuminaemia. koilonychia - iron deficiency). • Determine the rate, rhythm. and character of the radial pulse. Take the pulse in both arms to exude coarctation of the aorta. • Indicate that you would like to record the blood pressure			
Inspection and examination of the head and neck • Inspect the sclera and conjunctivae for signs of anaemia. • Inspect the mouth for signs of central cyanosis. • Assess the jugular venous pressure and the jugular venous pulse form: having asked the patient to turn his head slightly to one side, look at the internal ugular vein medial to the clavicular head of sternocleidomastoid. Assuming that the patient is at 45 degrees. the vertical height of the jugular distension from the sternal angle should be no greater than 4 cm. • Locate the carotid pulse and assess its character. • Never palpate both carotid pulses simultaneously.			
Palpation of the heart • Ask the patient if he has any chest pain. • Determine the location and character of the apex beat. It is normally located at the midclavicular line, at the level of the fifth intercostal space. A "tapping" apex beat is likely to indicate mitral stenosis; a "heaving" apex beat is likely to indicate left ventricular hypertrophy. • Place your hand over the cardiac apex and on either side of the sternum and feel for any heaves and thrills.			
Auscultation of the heart • Listen for heart sounds, additional sounds, murmurs, and pericardial rub. Using the stethoscope's diaphragm, listen in the:			

○ Aortic area: Right second intercostal space near the sternum. ○ Pulmonary area: Left second intercostal space near the sternum. ○ Tricuspid area: left third, fourth, and fifth intercostal spaces near the sternum. ○ Mitral area: Left fifth intercostal space, in the mid-clavicular line. • Ask the patient to bend forward and 10 hold his breath in expiration. Using the steathoscope's diaphragm, listen at the left sternal edge in the fourth intercostal space for the mid diastolic murmur of aortic regurgitation. • Ask the patient to turn onto his left side and to hold his breath in expiration. • Using the stethoscope's bell, listen in the mitral area for the mid diastolic murmur of mitral stenosis. • Listen over the carotid arteries for any bruits.			
Ankle oedema • Test for the dependent or "pitting" oedema of cardiac failure.			
Peripheral pulses • Feel the temperature of the feel and then palpate the: • Femoral pulses. • Popliteal pulses. • Posterior libial pulses. • Dorsalis pedis pulses.			
After the examination • Indicate that you would test the urine. examine the retina with an ophthalmoscope and. if appropriate, order some key investigations, e.g. ECG, CXR. echocardiogram. • Cover the patient up. • Thank Ihe patient. • Ensure that he is comfortable. • Summarise your findings and offer a differential diagnosis.			
Level of Satisfaction			

Comments:_____

_____

Facilitator Name: _____

Designation: _____

Unit, Department, Hospital: _____

Date and Sign: _____

Skill-19: Recording an ECG

Entrustable Professional Activity: Record ECG in a patient
Miller's Level: Shows

Task	Assessment		
	Not Done	**Done**	**Well Done**
Before starting • Introduce yourself to the patient. • Explain the procedure 10 him, specifying that it is not painful. and ask him for his consent to carry it out. • Position him so that he is lying on a couch. • Ask him to expose his upper body and ankles.			
The equipment • A 12-lead ECG machine. • Electrode sticky pads.			
The procedure • Indicate that you may need to shave the patient's chest to apply the electrode pads. • Attach the electrode pads as per the leads. • Attach the limb leads. one on each limb. The longest leads attach to the legs, above the ankles. and the mid length leads attach 10 the upper arms. • Place the chest leads (the shortest leads) such that: o Vl is in the fourth intercostal space at the right sternal margin. o V2 is in the fourth intercostal space at the left sternal margin.561 Clinical SkillB (or OSCEs o V3 is midway between Vl and V4. o V4 is in the fifth intercostal space in the left mid-davicular line. o Vs is at the same horizontal level as V4. but in the anterior axillary line. o V6 is at the same horizontal level as V4 and V5. but in the mid-axillary line. • Turn the ECG machine on and check calibration (1 mV = 1 ern in height) and paper speed (25 mm/s). • Ensure that the patient is relaxed and comfortable and press on "Analyse ECG" or a similar button.			
After recording & the ECG • Analyse the ECG for any life-threatening abnormalities. • Remove the leads. • Discard the electrode pads. • Ensure that the patient is comfortable. • Thank the patient.			
Level of Satisfaction			

Comments:_____
_____

Facilitator Name: _____
Designation: _____
Unit, Department, Hospital: _____
Date and Sign: _____

Respiratory Module Skills

Skill-20: Respiratory System Examination

Entrustable Professional Activity: Examine the Respiratory System of a patient
Miller's Level: Shows

Task	Assessment		
	Not Done	**Done**	**Well Done**
Before starting • Introduce yourself to the patient. • Explain the examination and ask for his consent 10 carry it out. • Position him at 45 degrees. and ask him to remove his topes). • Ensure that he is comfortable			
General inspection • From the end of the couch, observe the patient's general appearance (age. Slate of health, nutritional status, and any other obvious signs). In particular, is he breathless or cyanosed? Dots he have to sit up 10 breathe? Is his breathing audible? Is he coughing? • Note: o The rate. depth, and regularity of the patient's breathing. o Any deformities of the chest (barrel chest, pectus excovatum, pectus corinatum) and spine. o Any asymmetry of chest expansion. o The use of accessory muscles of respiration. o The presence of operative scars.			
Inspection and examination of the hands • Take both hands and assess them for colour and temperature. • Look for clubbing. • Determine the rate, rhythm, and character of the radial pulse. • Test for asterixis, the flapping tremor.			
Inspection and examination of the head and neck • Inspect the sclera and conjunctivae for signs of anaemia. • Inspect the mouth for signs of central cyanosis. • Assess the jugular venous pressure and the jugular venous pulse form (cor pulmonale - right·sided heart failure). • Palpate the cervical. supraclavicular, infraclavicular, and axillary lymph nodes.			
Palpation of the chest • Ask the patient if he has any chest pain.			

• Palpate for tracheal deviation by placing the index and middle fingers of one • hand on either side of the trachea in the suprasternal notch. Alternatively, place the index and annular fingers of one hand on either clavicular head and use your middle finger (called the vulgaris in latin) to palpate the trachea. • Palpate for the position of the cardiac apex. • Palpate for equal chest expansion, comparing one side to the other. Reduced unilateral chest expansion might be caused by pneumonia, pleural effusion, pneumothorax, and lung collapse. If there is a measuring tape, measure the chest expansion.			
Percussion of the chest • Percuss the chest. Start at the apex of one lung, and compare one side to the other. Do not forget to percuss over the clavicles and on the sides of the chest. • For anyone area, is the resonance increased (emphysema, pneumothorax) or decreased (consolidation, fibrosis, fluid)?			
Auscultation of the chest • Ask the patient to take deep breaths through the mouth and. using the diaphragm of the stethoscope, auscultate the chest. Start at the apex of one lung, and compare one side to the other. Are the breath sounds vesicular or bronchial? Are there any other added signs? • Test for vocal resonance by asking the patient to say, "ninety nine". If you have already tested for tactile fremitus, it is not necessary to test for vocal resonance. • Different breath sounds			
After the examination • Indicate that you would like to look at the sputum pot, measure the PEFR (see • Station 24) and, if appropriate. order some key investigations. e.g. a CXR. FBC, • CRP, etc. • Cover the patient up. • Thank the patient. • Ensure that he is comfortable. • Summarise your findings and offer a differential diagnosis.			
Level of Satisfaction			

Comments:_____

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Facilitator Name: _____

Designation: _____

Unit, Department, Hospital: _____

Date and Sign: _____

Skill-21: Interpret Chest Radiographs

Entrustable Professional Activity: Identify the main thoracic organs on a chest X-ray.
Miller's Level: Knows How

Task	Assessment		
	Not Done	**Done**	**Well Done**
The X-ray • Name and age of the patient. • Date of the X-ray. • PA, AP. or lateral • Erect or supine • Rotation - if there is no rotation, the distances from the vertebral spines 10 the medial ends of the clavicles should be equal. • Penetration - If penetration is normal. the upper half of the thoracic spine should be discernible.			
Interventions • Make a note of any chest drains, ECG pads, etc., that may be visible on the X-ray.			
The skeleton • Inspect the ribs, the shoulder girdles, and the spine.			
The soft tissues • Inspect the breasts, the chest wall, and the soft tissues of the neck. look for any distortion, and for any opacities and translucencies.			
The lungs and hila • The lungs: Check the lung volumes, then carefully inspect the lung fields for any opacity or radiolucency. • The hila: Inspect the hila, the densities created by the pulmonary arteries and the superior pulmonary veins of either lung for any abnormal opacities. Check their positions: the left hilum should be 2-3 cm higher than its right counterpart.			
The pleura • Systematically check aI/lung margins, looking for pleural opacity, pleural displacement and loss of clarity of the pleural edge (the so-called silhouette sign)			
The diaphragm • Inspect the diaphragm and the area underneath it. The right hemi diaphragm should be at least 3 cm higher than the left.			
The mediastinum and heart • First look for any mediastinal shift. Then calculate the cardiothoracic ratio by dividing the maximal diameter of the heart by the maximal diameter of the chest. Inspect the trachea and right and left main bronchi. Then inspect the aortic arch. the pulmonary artery. and the heart. Are there any abnormal opacities or radiolucencies			
Summarise your findings			
Level of Satisfaction			

Comments:_____
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Facilitator Name: _____
Designation: _____
Unit, Department, Hospital: _____
Date and Sign: _____

Skill-22: Using a Peak Expiratory Flow Rate meter.

Entrustable Professional Activity: Demonstrate the usage of the Peak Expiratory Flow Rate (PEFR) meter.

Miller's Level: Shows

Task	Assessment		
	Not Done	**Done**	**Well Done**
Before starting • Introduce yourself to the patient. • Check his understanding of asthma. • Explain the importance of using a PEFR (Peak Expiratory Flow Rate) meter and the importance of using it correctly. • Explain that the PEFR meter is 10 be used first thing in the morning and at any time he has symptoms of asthma.			
Explain the use of a PEFR meter Ask the patient (and demonstrate): • Attach a clean mouthpiece to the meter. • Slide the marker 10 the bottom of the numbered scale. • Stand or sit up straight. • Hold the peak flow meter horizontal, keeping his fingers away from the marker. • Take as deep a breath as possible and hold it. • Insert the mouthpiece into his mouth, sealing his lips around the mouthpiece. • Exhale as hard as possible into the meter. • Read and record the meter reading. • Repeat the procedure three to six times, keeping only the highest score. • Check this score against the peak flow chart or his previous readings. • Check the patient's understanding by asking him to carry out the procedure. • Ask him if he has any questions or concerns.			
Level of Satisfaction			

Comments:_____

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Facilitator Name: _____

Designation: _____

Unit, Department, Hospital: _____

Date and Sign: _____

Skill-23: Using a Inhaler.

Entrustable Professional Activity: Demonstrate the use of an Inhaler
Miller's Level: Shows

Task	Assessment		
	Not Done	**Done**	**Well Done**
Before starting • Introduce yourself to the patient. • Check his understanding of asthma. • Explain that an inhaler device delivers aerosolised bronchodilator medication for inhalation and that, if used correctly. • Provides fast and efficient relief from bronchospasm (or airway irritation and narrowing). furthermore, it is relatively free of systemic side-effects			
Instruct: on the use of an inhaler Ask the patient (and demonstrate): • Vigorously shake the inhaler. • Remove the cap from the mouthpiece. • Hold the inhaler between index finger and thumb. • Place the inhaler upright about 5 cm in front of his mouth. • Breathe out completely. • Breathe in deeply. and simultaneously activate the inhaler. • Close his mouth and hold his breath for 10 seconds and then breathe out. • Repeat the procedure after 1 minute if relief is insufficient. • Check the patients understanding by asking him to carry out the procedure. • If the patient has difficulty co-ordinating breathing in and inhaler activation, he may benefit from the added use of an aerochamber inhaler spacer. • Ask the patient if he has any questions or concerns			
Level of Satisfaction			

Comments:_____
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Facilitator Name: _____
Designation: _____
Unit, Department, Hospital: _____
Date and Sign: _____

Skill-24: Drug Administration Via A Nebulizer

Entrustable Professional Activity: Administer a drug using a nebuliser
Miller's Level: Knows How

Task	Assessment		
	Not Done	**Done**	**Well Done**
Before starting • Introduce yourself to the patient. • Explain the need for a nebuliser and the procedure involved, and ensure • consent. • o Explain the drug in the nebuliser and its common side-effects			
The equipment Gather: • An air compressor and tubing. • A nebuliser cup. • A mouthpiece or mask. • A syringe. • Drug or drug solution (e.g. salbutamol 2.5 ml) in a vial. • Diluent if needed.			
The procedure • Consult the prescription chart and check: • The identity of the patient. • The prescription: validity, drug, dose. diluent. route of administration, date • and time of starting. • Drug allergies. • Check the name, dose. and expiry date of the drug on the vial. • Ask a colleague (registered nurse or doctor) to confirm the name, dose, and expiry date of the drug on the vial. • Place the air compressor on a sturdy surface and plug it into the mains. • The compressor unit is most suitable for asthmatic patients and delivers a set airflow rate. • Wash your hands. • Open the vial of drug solution by twisting of the top. • With the syringe, carefully draw up the correct amount of drug solution. • Remove the top part of the nebuliser cup and place the drug solution into it. • Attach the top part of the nebuliser cup and connect the mouthpiece or face mask to the nebuliser cup.			

• Connect the tubing from the air compressor to the bottom of the nebuliser cup. • Switch on the air compressor. • Ask the patient to sit up straight. • If using a mouthpiece, ask the patient to clasp it between his teeth and to seal his lips around it. If using a mask, position it comfortably and securely over the patient's face. • Ask the patient to take slow, deep breaths through the mouth and. if possible. • To hold each breath for 2 seconds before breathing out. • Continue until there is no drug left and the nebuliser begins to splutter (about 10 minutes). • Should the patient feel dizzy, he should Interrupt the treatment and rest for about 5 minutes before resuming It. He should then try to breathe more slowly through the mouthpiece. • Turn the compressor off. • Ask the patient to take several deep breaths and to cough up any secretions. • Ask the patient to rinse his mouth with water. • Wash your hands.			
After the Procedure • Tell the examiner that you would clean and disinfect the equipment. • Sign the drug chart and record the diluent used. and the date, time. and dose of • the drug in the medical records. • Indicate that you would have your checking colleague countersign it. • Ask the patient if he has any questions or concerns. • Ensure that he is comfortable.			
Level of Satisfaction			

Comments:_____
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Facilitator Name: _____
Designation: _____
Unit, Department, Hospital: _____
Date and Sign: _____