Module B

Clinical Placement Orientation Guide

UQUMED Academic
Year (2019-2018)-(1440-1439)

Year 4

UQUMED
Curriculum Committee

This study guide was developed by the Faculty of Medicine, Umm AlQura University 2018.

Edited by:

Dr. Alaa Monjed & Dr. Rania Zaini

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Important contacts:

No.	Important Contacts	Names	Emails
1.	Clinical Placement Unit		clinicalplacementunit@gmail.com
2.	Head of Clinical Placement Unit	Dr. Jihad Muglan	drmuglan@gmail.com
3.	Year 4 Lead Vice Dean for Hospitals Affairs (females section)	Dr. Alaa Monjed	akrmonjed@uqu.edu.sa
4.	Vice Dean for Hospitals Affairs (males section)	Dr. Ashraf Warsi	ashwarsi@yahoo.com

UQUMED Year 4 Module B:
Cardiac, Respiratory, Endocrine and Diabetes presentations

Guide Aim:

This guide of Year 4 Module B Clinical Placement is designed as an orientation package for supervising clinical teams at affiliated hospitals and clinical facilities. It provides structure and outline of Module B training. This enables partners of supervising clinical teams and trainers to contribute to constructively to students' learning experiences.

Outline of Year 4 of UQUMED MBBS

Introduction

Year 4 (Clinical Practice-1) of UQUMED MBBS programs based on the theme of "**Integrated Clinical Care**". Workplace-based learning is the backbone of Year 4 and moving towards more workplace-based learning can be a challenging transition for medical students. To achieve this, much of the learning will take place in healthcare settings to ensure UQU medical students have exposure to patients with a wide range of healthcare needs including primary care and community care presentations, chronic disease management, acute illness presentations, and pre/peri and post-operative care. Year 4 is also a time when students will be both looking backwards: to their past learning, and understanding how theory and understanding of health and disease links to practice; and forwards: using the learning in this year as a key part of the journey to become competent interns.

Aim of Year 4:

Year 4 (Clinical Practice-1) aims to:

- Learn from healthcare experiences.
- Become skilled at interviewing and examining patients with a range of problems across the range of healthcare settings.

- Understand the integrated approach to diagnosing and managing patients' problems.
- Understand the healthcare system and how patients access care.
- Learn how to document information about patients and their care.

Structure of Year 4:

The main structure of Year 4 consists of four **Horizontal Modules**. In addition, the longitudinal **Vertical Modules** integrated with the horizontal modules throughout the year and extend into the later years of the program.

- **Module A:** "Foundations of Clinical Practice" is an introduction and orientation module designed to assist in the transition into to workplace-based learning. This module also introduces students to the structure of the year, learning opportunities, how to maximize workplace-based learning, and evaluation of formative assessment opportunities.
- **Module B**: Cardiac, Respiratory, Endocrine and Diabetes presentations. This is based on Workplace-based learning approach.
- **Module C**: Neurological, Kidneys and urinary tract, Hematological and Infectious presentations. This is based on Workplace-based learning approach.
- **Module D:** Gastrointestinal and Hepatobiliary presentations, Fundamentals of General Surgery. This is based on Workplace-based learning approach.

The longitudinal eight **Vertical Modules** of "*Pathological Sciences, Anatomy and Imaging, Use of Medicine, Clinical Skills, Research and Evidences, Family Health, Professional Development, and Hajj & Umrah*" are ongoing throughout the year and extend into the later years of the program.

The structure of the program couples leaning with formative assessment and constructive feedback. Students must maintain and complete Workplace-Based-Assessment tasks and practical procedures card as part of the comprehensive portfolio. They are expected to be autonomous and self-directed learners. Summative assessments include end of the terms exams and final comprehensive written and clinical exams.

Clinical Placement:

Clinical Placement

"Any arrangement in which a medical student is present in an environment that provides healthcare or related services to patients or the public. Placements can take place in primary, secondary or community healthcare or social care settings. Students can be actively involved in patient care or they can be observing health or social care processes".
General Medical Council, UK

Clinical placements are the skeleton of year 4 UQUMED curriculum. Learning will be achieved by placing year 4 students in a range of different clinical settings including inpatients, outpatients departments, and primary care centers.

Students Clinical Privileges

While on clinical placement, Year 4 students are expected to:

- Take history and perform physical examination.
- Use separate clerking notes to practice clinical documentation and this should not be part of patient's medical records and should not be stamped with patient's ID.
- Access to paper-based and electronic medical records as "read only".
- Never write in patients' medical records.
- Perform certain clinical procedures under supervision such as IV cannulation and phlebotomy.
- Participate in hospital's teaching activities.

Module B Clinical Placement

- Module B clinical placements are conducted in Cardiology, Pulmonology, and Endocrine Units in 5-6 different hospitals as well as primary healthcare centers.
- Students rotate in clinical placements every TWO weeks (four-day a week). This includes academic half-day: a UQUMED faculty staff will arrange a structured clinical teaching (grand round, bedside teaching, case-based learning, …etc).
- Each week the fifth day will be spend in the Faculty for Vertical Modules teaching.

During Cardiology placements:

- Students are expected to spend time in inpatients floor (cardiac inpatients and CCU), cardiology outpatient clinics, ECHO clinics, stress test clinics and +/- cath lab (as appropriate).

During Pulmonology placements:

- Students are expected to spend time in inpatients floor, pulmonology outpatient clinics, asthma clinics, and pulmonary function test clinics (where available).

During Endocrinology placements:

- Students are expected to spend time in diabetes and endocrine outpatient clinics, diabetic educator clinic, and foot-care clinic (as appropriate). They are also expected to work with the endocrine consult team, when feasible.

Module B Core Clinical Presentations

Blood pressure changes	Loss of consciousness
Chest pain	Neck swelling
Cough	Obesity
Coughing up blood	Palpitations
Daytime sleepiness	Tired all the time
Difficulty breathing	Weight loss
Fever	Wheeze
Leg swelling	

Module B Core Cardiac Diseases

Hypertension

By the end of Module B, students should be able to:

1. Obtain a comprehensive medical history from a patient with hypertension.
2. Perform a complete systematic physical examination of a patient with hypertension.
3. Demonstrate the appropriate clinical approach to a hypertensive patient:
   - Confirming the diagnosis of hypertension
   - Identifying the red flags of secondary hypertension
   - Choosing the appropriate screening and confirmatory tests for secondary hypertension
   - Assessing the control of hypertension
4. Recognize the complications of hypertension.
5. Recognize the blood pressure target for control for different patients' populations.
6. Develop an evidence-based management plan for hypertension, including non-pharmacological and pharmacological management taking into consideration the clinical indications, contraindications, and side effects of each drug category.
7. Develop an approach to diagnose and initiate the ABC management of hypertensive emergency.
8. Demonstrate the appropriate skills for patient's education.

Ischemic heart disease

By the end of Module B, students should be able to:

1. Obtain a history from a patient with chest pain, differentiating between cardiac and non-cardiac chest pain.
2. Perform a focused physical exam in a patient with chest pain.
3. Formulate and prioritize a differential diagnosis of chest pain
4. Describe types of ischemic episodes (chronic stable angina, silent ischemia, variant angina, acute coronary syndrome; Unstable angina, ST elevation myocardial infarction, Non-ST elevation myocardial infarction)
5. Recognize the different diagnostic modalities used in the diagnosis of ischemic heart disease and their main indications (stress ECG, radionuclide myocardial perfusion imaging, stress echo, coronary computed tomography, left heart catheterization and coronary angiography).
6. Choose the most appropriate investigations to diagnose ischemic heart disease based on the available clinical data.
7. Interpret
    - ECG ischemic changes
    - Cardiac biomarkers
8. Outline the therapy of acute coronary syndrome contrasting the difference between management of STEMI, NSTEMI, and unstable angina.
9. Identify the complications associated with myocardial infarction.
10. Develop an evidence-based management plan for chronic stable angina including non-pharmacological and pharmacological management taking into consideration indications, contraindications, side effects and complications of each category.
11. Develop an evidence-based management plan for acute coronary syndrome including the non-pharmacological and pharmacological management taking into consideration indications, contraindications, and side effects of each category.
12. Demonstrate the appropriate skills for patient's education.

Heart Failure

By the end of Module B, students should be able to:

1. Obtain a comprehensive history of patient with shortness of breath and/or lower limb swelling.
2. Perform a focused physical exam in a patient with shortness of breath.
3. Perform a comprehensive physical exam in a patient with heart failure.
4. Identify the clinical features of heart failure.
5. Classify heart failure based on the
    a. *Ejection fraction* (Heart Failure with preserved ejection fraction HFpEF, Heart Failure with mid range ejection fraction HFmrEF, or Heart failure with reduced ejection fraction HFrEF)
    b. Etiological abnormalities
    c. New York Heart Association NYHA functional classification
6. Recognize the different diagnostic modalities used in the diagnosis of heart failure.
7. Construct a diagnostic approach to heart failure based on etiology, symptoms and investigation (ECG, Echo, cardiac catheterization).
8. Interpret CXR findings associated with heart failure.
9. Develop an evidence-based management plan for chronic heart failure including the non-pharmacological and pharmacological management taking into consideration indications, contraindications, and side effects of each category.
10. Contrast the different management strategies for HFrEf and HFpEF.
11. Construct an approach to the management of acute pulmonary edema.
12. Demonstrate the appropriate skills for patient education.

Pericardial Diseases

By the end of Module B, students should be able to:

1. Obtain an accurate and comprehensive medical history of pericarditis/ pericardial effusion.
2. Perform a physical examination for pericarditis.
3. Examine for signs of pericardial effusion/ tamponade.
4. Identify the etiology of acute and constrictive pericarditis.
5. Identify the etiology of pericardial effusion/ tamponade.
6. Choose the most appropriate investigations to diagnose acute and constrictive pericarditis (ECG and imaging).
7. Interpret the results of
    - ECG of acute pericarditis
    - Imaging: CXR and CT scan
8. Develop evidence-based management plan for acute pericarditis.
9. Outline treatment of pericardial effusion/tamponade.
10. Demonstrate the appropriate skills for patient education.

Aortic Dissection

By the end of Module B, students should be able to:

1. Obtain an accurate and comprehensive medical history of aortic dissection or aneurysm.
2. Perform a physical examination for aortic dissection or aneurysm.
3. Identify the predisposing factors of aortic dissection.
4. Describe clinical features of aortic dissection.
5. Identify types and etiology of aortic aneurysm.
6. Outline treatment of aortic dissection.
7. Demonstrate the appropriate skills for patient education.

Valvular Heart Disease

By the end of Module B, students should be able to:

1. Obtain a comprehensive history of patient with vavular heart disease or infective endocarditis.
2. Elicit and interpret the physical signs of aortic stenosis, aortic regurgitation, mitral stenosis, mitral regurgitation, and tricuspid regurgitation.
3. Elicit and interpret the physical signs of infective endocarditis.
4. Identify the risk factors of infective endocarditis.
5. Identify the most common organisms causing infective endocarditis.
6. Develop a diagnostic approach to infective endocarditis using Modified Duke's criteria.
7. Outline the principles of management of infective endocarditis.
8. Demonstrate the appropriate diagnostic approach to an abnormal systolic and/or diastolic murmur.

Arrhythmia

By the end of Module B, students should be able to:

1. Obtain a comprehensive history from a patient with palpitation or syncope.
2. Perform a focused physical exam on a patient with palpitation or syncope.
3. Describe etiology, clinical features, and ECG-findings of atrial fibrillation.
4. Describe etiology, clinical features, and ECG-findings of ventricular tachycardia.
5. Recognize the clinical presentation of bradycardia.
6. Outline basic management principles of bradycardia and tachycardia.
7. Construct an appropriate approach to assess a patient with palpitation.
8. Differentiate between different types of AV blocks on ECG.
9. Develop an evidence-based management plan for atrial fibrillation

Module B Core Respiratory Diseases

Bronchial Asthma

By the end of Module B, students should be able to:

1. Obtain a focused history to patients with shortness of breath/asthma.
2. Performa a focused physical examination to assess asthma severity.
3. Identify asthma triggers.
4. Explain the diagnostic criteria of asthma.
5. Classify asthma severity.
6. Identify the red flag symptoms and signs of severe asthma exacerbation.
7. Recognize admission criteria for asthma flare or exacerbation.
8. Identify factors impacting on asthma control (e.g, Environmental factors, inhaler technique).
9. Choose the most appropriate investigations to diagnose asthma and assess severity (blood tests, imaging, spirometer).
10. Interpret the results of
    - Spirometery
    - Arterial blood gases
    - Imaging
11. Formulate and prioritize a differential diagnosis for shortness of breath.
12. Develop an evidence-based management plan for asthma.
13. Assess response to treatment.
14. Appropriately prioritize referral to respiratory clinic.
15. Demonstrate the appropriate skills for patient education.

Chronic Obstructive Pulmonary Disease (COPD)

By the end of Module B, students should be able to:

1. Obtain a comprehensive medical history from patients with stable COPD.

2. Obtain a comprehensive medical history of patients with an acute exacerbation of COPD.
3. Perform a complete systematic physical examination of a patient with stable COPD.
4. Perform a complete systematic physical examination of patient with an acute exacerbation of COPD.
5. Classify COPD severity.
6. Choose the most appropriate tests/imaging to assess patients with COPD.
7. Interpret the results of
    - Spirometery
    - Arterial blood gases
    - Imaging
8. Formulate and prioritize a differential diagnosis for shortness of breath.
9. Develop an evidence-based management plan including non-pharmacological and pharmacological management for stable COPD patients and patients with acute exacerbation.
10. Assess response to treatment.
11. Recognize the indications of long-term oxygen therapy.
12. Identify patients that are suitable for Non-Invasive Ventilation (NIV).
13. Identify interventions that reduce mortality in COPD.
14. Describe the impact of cigarette smoking on the respiratory system.
15. Appropriately prioritize the referral to Respiratory Clinic.
16. Demonstrate the appropriate skills for patient education.

Pneumonia {Community acquired **(CAP),** Hospital acquired **(HAP)** Ventilator associated **(VAP)}**

By the end of Module B, students should be able to:

1. Obtain a comprehensive medical history of patients with cough and fever.
2. Perform a complete systematic physical examination for a patient with cough and fever.
3. Define CAP, HAP, and VAP.
4. Identify the common microbiological organisms of CAP, HAP, and VAP.
5. Choose the appropriate laboratory/imaging tests to evaluate patients with possible pneumonia.
6. Interpret the CXR findings suggestive of pneumonia and distinguish different causes of alveolar pattern.
7. Formulate and prioritize a differential diagnosis for patients with cough and fever.
8. Recognize and prioritize patients with CAP who need hospital admissions.
9. Utilize the CUREB-65 pneumonia severity scoring system.
10. List the causes of non-resolving pneumonia.
11. Describe pneumonia complications and their appropriate management.
12. Develop an evidence-based management plan for pneumonia management (CAP, HAP, and VAP).
13. Formulate a follow up plan for patient with CAP, HAP, and VAP.
14. Demonstrate the appropriate skills for patient education.

Pleural Effusion

By the end of Module B, students should be able to:

1. Obtain a comprehensive history of patient with shortness of breath and/or pluritic chest pain.
2. Perform chest physical examination to establish the presence of pleural effusion.
3. Differentiate between exudative, transudative pleural effusion, and empyema.
4. List causes of exudative, transudative pleural effusion, and empyema.
5. Choose the most appropriate imaging / pleural fluid investigations to diagnose different types of pleural effusion.
6. Identify CXR findings compatible with pleural effusion.
7. Interpret the results of pleural fluid tests.
8. Judge when pleural drainage is appropriate and safe.
9. Assess the pre-requisite measures of safe pleural tapping.
10. Employ the diagnostic utilities of different pleural fluid tests.
11. Develop an evidence-based management plan for different types of pleural effusion.
12. Appropriately prioritize referral to Respiratory / Thoracic surgery Clinic.

Venous Thromboembolism (VTE): Pulmonary Embolism (PE) ans Deep Vein Thrombosis (DVT)

By the end of Module B, students should be able to:

1. Obtain a comprehensive medical history of patients with PE/DVT.
2. Perform a complete systematic physical examination for patient with PE/DVT.
3. Recognize risk factors for PE/DVT.
4. Distinguish between provoked and unprovoked PE/DVT.
5. List the inherited thrombophilia diseases.
6. Utilize the pre-test probability scoring tool for PE/DVT (Well's score).
7. Utilize the diagnostic algorithm for suspected PE/DVT.
8. Choose the appropriate laboratory/imaging tests to evaluate patient with possible PE/DVT.

9. Relate the role of D-Dimer and its interpretation based on the clinical probability.
10. Interpret arterial blood gases ABG in the setting of suspected PE.
11. Identify key abnormalities on ECG and CXR in suspected PE.
12. Recognize limitations of different diagnostic tests in PE.
13. Recognize the indications of Thrombolytic therapy.
14. Recognize acute and chronic complications of PE.
15. Formulate and prioritize a differential diagnosis for venous thromboembolism (DVT, PE).
16. Develop an evidence-based management plan for PE/DVT.
17. Appropriately prioritize the referral to hematology/anticoagulation clinic.
18. Demonstrate the appropriate skills for patient education.

Tuberculosis (TB)

By the end of Module B, students should be able to:

1. Obtain a comprehensive history to patients with Pulmonary or extra-pulmonary TB.
2. Perform a focused chest physical examination to assess potential complications of pulmonary TB (effusion, collapse, Broncheactiaisis)
3. Perform a systemic physical examination to assess for extra-pulmonary TB signs.
4. Recognize the difference between active Pulmonary TB and latent TB.
5. Understand the diagnostic yields of different tests for Active Pulmonary TB (AFB stain, sputum culture, and PCR).
6. Describe yield of PPD skin test and IGRA Quantiferon tests in latent TB diagnosis.
7. Identify red flag symptoms and risk factors of TB from history and apply the appropriate infection control precaution.
8. Choose the appropriate tests/imaging to diagnose active TB.
9. Choose the appropriate tests/imaging to diagnose latent TB.
10. Choose the appropriate investigations to screen close contacts of active TB patients.
11. Describe complications of Pulmonary and extra-pulmonary TB.

12. Recognize risk factors of activation of latent TB.
13. Differentiate between active and latent TB treatment.
14. Describe the basic pharmacology of anti-TB medications.
15. Develop an evidence-based management plan for active and latent TB.
16. Appropriately prioritize the referral to ID/Respiratory clinic.
17. Demonstrate the appropriate skills for patient education.

Obstructive Sleep Apnea (OSA)

By the end of Module B, students should be able to:

1. Recognise symptoms suggestive of OSA.
2. Obtain a focused history to screen for OSA.
3. Describe effect of OSA on metabolic syndrome.
4. Practice calculating BMI and classify the patient's obesity.
5. Outline the complications of OSA.
6. Outline the treatment options for OSA.
7. Prioritize the referral to Respiratory/sleep medicine clinic.

Module B Core Endocrinology Diseases

Obesity

By the end of Module B, students should be able to:

1. Obtain an accurate and comprehensive medical history of an obese patient, focusing on life style, underlying cause and complications.
2. Perform a physical examination focusing on obesity related complications.
3. Define obesity and quantify it.
4. Identify the etiology of obesity and its reversible causes.
5. Develop a clinical assessment approach to obesity.
6. Choose the most appropriate investigations to exclude reversible causes of obesity.
7. List obesity related complications.
8. Identify the indications for medical and surgical treatment of obesity.
9. Identify the types of Bariatric surgeries and their adverse effects.
10. Develop an evidence-based management plan for obesity.
11. Demonstrate the appropriate skills for patient education.

Diabetes Mellitus (DM)

By the end of Module B, students should be able to:

1. Obtain a comprehensive medical history of DM and its complications.
2. Perform a complete physical examination for screening of DM complications (including retinopathy and diabetic feet) and injection sites.
3. Recognize the different types of DM (type 1 DM, type 2 DM, gestational DM GDM, mature onset diabetes of young MODY, and late autoimmune diabetes of adults LADA) and how to differentiate between them clinically and biochemically.
4. Choose the most appropriate laboratory tests to screen/diagnose DM based on the

available clinical data.

5. Outline the advantages and pitfalls of the DM screening/diagnostic tests.
6. Recognize the targets for a controlled DM.
7. Develop an evidence-based and cost-effective management plan for T1DM and T2DM taking into consideration the advantages/disadvantages of each treatment modality and patient's characteristics and preferences.
8. Describe the basic pharmacology of oral and injectable anti-diabetic medications, their indications, contraindications, and side effects.
9. Identify the surgical role in DM management.
10. Recognize the clinical features/red flags of acute DM complications (DKA, HHS, Hypoglycemia).
11. Illustrate a schematic approach for screening and management of DM vascular complications
12. Appropriately prioritize referral to Endocrine Clinic.
13. Demonstrate the appropriate skills for patient education.

Thyroid disorders

By the end of Module B, students should be able to:

1. Obtain a comprehensive medical history of hyperthyroidism, hypothyroidism, and thyroid nodule/goiter.
2. Perform a complete systematic physical examination for hyperthyroidism, hypothyroidism, and nodule/ goiter.
3. Demonstrate the correct technique of thyroid examination.
4. Classify the causes of hyperthyroidism and hypothyroidism.
5. Choose the most appropriate laboratory/imaging investigations to diagnose thyroid disorders based on the available clinical data.
6. Interpret thyroid function tests.
7. Formulate and prioritize a differential diagnosis of hypo-, hyperthyroidism, and

nodule/goiter.

8. Develop an evidence-based management plan for hypothyroidism, hyperthyroidism, and thyroid nodules/ goiter taking into consideration the advantages/disadvantages of each treatment modality and patient's preferences.
9. Define the indications and contraindications of radioactive iodine ablation and thyroid surgery in treatment of hyperthyroidism.
10. Describe the postoperative complications of thyroid surgeries.
11. Identify the red flag clinical features of thyroid storm and myxedema coma.
12. Appropriately prioritize the referral to Endocrine Clinic.
13. Demonstrate the appropriate skills for patient education.

Parathyroid and calcium disorders

By the end of Module B, students should be able to:

1. Obtain a comprehensive medical history of hypo- and hypercalcemia, and vitamin D deficiency.
2. Perform a complete systematic physical examination for hypo- and hypercalcemia.
3. Define the etiology of hypo- and hypercalcemia, vitamin D deficiency and excess.
4. Identify the consequences/ complications of hypo- and hypercalcemia, vitamin D deficiency and excess (osteomalacia and osteoporosis).
5. Choose the most appropriate laboratory/imaging tests to investigate causes of hypo- and hypercalcemia, and interpret their results.
6. Formulate and prioritize a differential diagnosis for calcium imbalance.
7. Describe the basics pharmacology of medications used in treatment of calcium and vitamin D imbalance.
8. Outline the role of surgery related to treatment of hyperparathyroidism.
9. Develop an evidence-based management plan for calcium and vitamin D imbalance.
10. Appropriately prioritize the referral to Endocrine Clinic.
11. Demonstrate the appropriate skills for patient education.

Pituitary Disorders

By the end of Module B, students should be able to:

1. Obtain a comprehensive medical history from patients with pituitary disorders.
2. Perform a complete systematic physical examination for patients with pituitary disorders.
3. Construct a diagnostic approach to hypopituitarism, hyperprolactinemia, and acromegaly.
4. Outline the medical management of hypopituitarism.
5. Outline the medical management options for prolactinoma.
6. Identify the complications of untreated acromegaly.
7. Outline the medical and surgical management options for acromegaly.
8. Appropriately prioritize the referral to Endocrine Clinic.
9. Demonstrate the appropriate skills for patient education.

Adrenal disorders

By the end of Module B, students should be able to:

1. Obtain a comprehensive medical history from patients with adrenal disorders.
2. Perform a complete systematic physical examination for patients with adrenal disorders.
3. Differentiate between primary and secondary adrenal insufficiency clinically and biochemically.
4. Identify the clinical features of Addisonian crisis.
5. Choose the most appropriate laboratory/imaging tests to investigate causes of adrenal insufficiency.
6. Interpret the results of laboratory screening for adrenal insufficiency.
7. Develop an evidence-based management plan for adrenal insufficiency considering its different types.

8. Demonstrate the appropriate skills for patient education of adrenal insufficiency and steroid stress dosing.
9. Identify the red flag symptoms and signs to suspect Cushing's.
10. Classify the causes of Cushing's as ACTH-dependent and independent causes.
11. Outline the complications of Cushing's and the consequences if untreated.
12. Choose the most appropriate screening and confirmatory laboratory/imaging tests for Cushing's.
13. Describe the role of medical and surgical management of Cushing's.
14. Outline the follow up plan for Cushing's patient post-treatment.
15. Identify the red flag symptoms and signs to suspect hyperaldosteronism.
16. Choose the most appropriate screening and confirmatory laboratory/imaging tests for hyperaldosteronism.
17. Interpret the results of laboratory tests used in screening and confirming the diagnosis of hyperaldosteronism.
18. Identify the complications of untreated hyperaldosteronism.
19. Outline the medical and surgical management options for hyperaldosteronism.
20. Identify the red flag symptoms and signs to suspect pheochromocytoma.
21. Choose the most appropriate screening and confirmatory laboratory/imaging tests for pheochromocytoma.
22. Develop a management plan for hypertension caused by pheochromocytoma.
23. Identify the complications of untreated pheochromocytoma.
24. Outline the role of medical and surgical management of pheochromocytoma.
25. Identify the clinical features of a functional adrenal 'incidentaloma'.
26. List the investigations used to assess the function of adrenal 'incidentaloma'.
27. Identify the imaging features suggestive of a malignant adrenal 'incidentaloma'.
28. Appropriately prioritize the referral to Endocrine Clinic.
29. Demonstrate the appropriate skills for patient education.

Year 4 Portfolio Items for Module B:

Task	Required numbers	Evaluation	Evaluator
Mini-CEX	2	Completion*	Senior resident / Consultant
CBD	1	Competence**	Faculty staff
Clerking (Documentation)	3	Competence/completion	Senior resident / Specialist/ Consultant
EBP (evidence based prescription)	1	Completion	Senior resident / Consultant/ Faculty staff
Procedure card	1	Performance/completion	Senior resident / Consultant/ nurse depending on procedure
ECG reports	3	Competence	Senior resident / Specialist/ Consultant/ Faculty staff
ABG interpretation	2	Competence	Senior resident / Specialist/ Consultant/ Faculty staff
PFT report	1	Completion	Senior resident / Specialist/ Consultant/ Faculty staff
Pleural fluid analysis	1	Completion	Senior resident / Specialist/ Consultant/ Faculty staff
CXR reports	4	Competence	Senior resident / Specialist/ Consultant/ Faculty staff
VTE project	1	Competence	Senior resident / Specialist/ Consultant/ Faculty staff
Radiology department visit (2-3 hr)	1	Performance/completion	Radiology Senior resident / Specialist/ Consultant

* **Completion**: student is evaluated based on completion/performance of the task

** **Competency:** student is evaluated based on his/her ability to achieve the expected standard

- Mini-CEX: mini-clinical evaluation exercise
- CBD: Case-based discussion
- EBP: Evidence-based prescription
- ECG: Electrocardiogram
- ABG: Arterial blood gases
- PFT: Pulmonary function test
- CXR: Chest x-rays
- VTE project: Venous thromboembolism prophylaxis project
- Radiology visit: A 2-3 hour visit to the radiology department reviewing chest imaging studies (x-rays and CT-scan) and their interpretations with a senior radiology resident, specialist or consultant.

Appendixes: Evaluation Forms

Form 1:

Clinical Evaluation Exercise (Mini-CEX)

The Clinical Evaluation Exercise (mini-CEX) assesses clinical skills (history taking or physical examination), attitudes and behaviors in a clinical setting. It is part of the workplace-based assessment component of the E-portfolio.

How mini-CEX works

The mini-CEX provides a 10- to 20- minute snapshot of how you interact with real patients in the inpatients, outpatients or ER care settings. You are expected to perform at least one mini-CEX per clinical rotation.

Preparing for mini-CEX

Each mini-CEX should represent a clinical problem. You should arrange with your team senior resident (R3 or R4), specialist, or consultant the time for evaluation.

Using mini-CEX feedback

The assessor will give you an immediate feedback verbally and in writing. You will be required to develop a learning plan based on the received feedback.

After completing mini-CEX

You are expected to upload a minimum of two mini-CEX forms to your E-portfolio by the end of the module.

Mini-Clinical Evaluation Exercise (CEX)

Assessor name: _____ **Assessor position:** _____

MED Student: _____ **Year** (pleases circle): **4 5 6**

Date: _____ **Module:** _____

Patient's problem/Dx: _____

Setting: ☐Outpatient ☐Inpatient ☐ER ☐Other_____

Complexity: ☐Low ☐Moderate ☐High

Focus: ☐History ☐Physical examination

	Below expectations for year of study	*Borderline for year of study*	*Meets expectations for year of study*	*Above expectations for year of study*	Not observed/ Unable to comment
History taking	☐	☐	☐	☐	☐
Physical examination	☐	☐	☐	☐	☐
Communication skills/professionalism	☐	☐	☐	☐	☐
Clinical judgment	☐	☐	☐	☐	☐
Organization/efficacy	☐	☐	☐	☐	☐
Overall clinical competence	☐	☐	☐	☐	☐

Anything especially good?	Areas for development and specific action points for improvement?

Assessor name: **Assessor Signature:** **Date:**		**Student Signature:** **Date:**	

Form 2:

Case-based Discussion (CBD)

A Case-based Discussion (CBD) concerns a patient case: using data identified and recorded by the student on a real patient. It involves a comprehensive review of a patient's clinical situation based on a discussion between the student and the assessor away from the patient. It is not a mini presentation of a condition or illness. The student is given feedback from the assessor across a range of areas relating to clinical record keeping, clinical assessment, management and clinical reasoning. It is part of the workplace-based assessment component of the E-portfolio.

How CBD works

A CBD takes place face-to-face over approximately 30 minutes in total (20 minutes for CBD and 10 minutes for constructive feedback). The discussion will cover history taking, physical examination, and your diagnostic and management approach. You are expected to perform one CBD during the module.

Preparing for CBD

You should document a patient's clinical situation in a record mimicking the patient's hospital medical record (a template will be provided). Then, you should schedule an appointment for the CBD with your assessor (a faculty member) before the end of the module.

Using CBD feedback

The assessor will give you an immediate feedback. You will be required to develop a learning plan based on the received feedback.

After completing CBD

You are expected to upload the CBD evaluation form to your E-portfolio by the end of the module.

Case-based Discussion (CBD)

Assessor name: _____ **Assessor position:** _____

MED Student: _____ **Year** (pleases circle): **4 5 6**

Date: _____ **Module:** _____

Patient's problem/Dx: _____

Setting: ☐Outpatient ☐Inpatient ☐ER ☐Other_____

Complexity: ☐Low ☐Moderate ☐High

	Below expectations for year of study	Borderline for year of study	Meets expectations for year of study on	Above expectations for year of study	Not observed/ Unable to comment
Documentation	☐	☐	☐	☐	☐
Case presentation skills	☐	☐	☐	☐	☐
Diagnostic approach					
Problem list	☐	☐	☐	☐	☐
Differential diagnoses list	☐	☐	☐	☐	☐
Initial investigations	☐	☐	☐	☐	☐
Management plan	☐	☐	☐	☐	☐
Organization/efficacy	☐	☐	☐	☐	☐
Overall clinical competence	☐	☐	☐	☐	☐

Anything especially good?	Areas for development and specific action points for improvement?

Assessor name: **Assessor Signature:** **Date:**		**Student Signature:** **Date:**	

Form 3:

Module B Data Interpretation Card

Name:	
University #:	

1. ECG reading

Competency*	☐Yes ☐No	☐Yes ☐No	☐Yes ☐No
Supervisor Name			
Date			

**Students show competent understanding in data interpretation*

2. Arterial blood gases ABG interpretation

Competency*	☐Yes ☐No	☐Yes ☐No
Supervisor Name		
Date		

**Students show competent understanding in data interpretation*

3. Pulmonary function test interpretation

Diagnosis	
Supervisor Name	
Date	

4. Pleural fluid analysis

Diagnosis	
Supervisor Name	
Date	

5. Chest x-ray reading

Competency*	☐Yes ☐No	☐Yes ☐No	☐Yes ☐No	☐Yes ☐No
Supervisor Name				
Date				

**Students show competent understanding in data interpretation*

6. Radiology Department Visit

Supervisor Name	
Date	
Reviewed cases:	1. 2. 3. 4. 5. 6.

Form 4:

Evidence-Based Practice (EBP)

R_X	**Evidence-Based Practice (EBP)** **Educational Prescription**
Ward: **Hospital:**	**Learner names:** **Learner's ID:**

4-part Clinical Question (PICO)

Target disorder: *(patient or population or problem)*

Intervention: *(new alternative – drug, physiotherapy, surgery, radiotherapy, procedure)*

Comparison (+/-): *(old or standard treatment or surgical procedure, etc)*

Outcome: *(What you are interested in? such as survival, symptoms reduction, quality of life, reduced sick-listed time, side effect, relapses, etc)*

Summary:	**Summary and presentation cover:** • **Search strategy brief** • **Quotation of the evidence or Guideline** • **Level of the evidence and strength of recommendation** • **Impact of evidence or its outcome** • **Can it be applied to your patient? What is your opinion?**

Overall performance:

☐ Satisfactory ☐ Not satisfactory

Tutor's feedback:

Tutor name:	**Tutor signature:**

Note:

- ***Take full history and examination, and record the lab results.***
- ***To be completed and then submitted online by week 9 of each module. Before submission, this form MUST be evaluated by the assessor.***

Form 5:

Year 4 Procedures Card

9. Completed venous thromboembolism (VTE) under supervision

	1	2
Surname		
Date		

10. Cranial nerve examination (supervised and patient consent obtained)

	1	2
Surname		
Date		

11. Neurological Examination (supervised and patient consent obtained)

Upper limb

	1	2
Surname		
Date		

Lower limb

	1	2
Surname		
Date		

Students must follow the absences reporting process for any teaching sessions they miss due to illness/extenuating circumstances. Any request for exceptional leave must be made before the date(s) required. Information about absence reporting and exceptional leave can be found on both the Medical school website and the Year 4 Moodle page.

Explanations for any uncompleted items on card: Attach extra sheet if needed

Year 4 (2018-2019)

Name:
University #:

Record of Completed Procedures Card

Guidance:

Over the course of the year you are required to keep a record of selected key clinical procedures. It is essential to your clinical development that you become familiar with the procedures and have performed them, under supervision of any member of the clinical staff, in real clinical situations the required number of times.

A **completed** record card is a necessary part of your in course assessment and may highlight areas where you need additional support.

Please bring this card to:

- **All module sign off meetings with your educational supervisor**
- **Submit it to the Year 4 administrative lead at the end of the year for evaluation**

Level of competence required:
By the end of the year we wish students to become competent in all procedures listed in the document, to at least the level of being able to perform them unaided but under supervision in a clinical setting.

Clinical Assessors:
In order to help the Medical School keep a record of students clinical activity we would be grateful if you could confirm each time you observe the student **SUCCESSFULLY** completing the skill. (Please print your name and date the procedure)

PART 1 - To be observed under the supervision of clinical skills staff in the simulated setting of the skills centre and signed by staff when successfully completed

Clinical Skill	Name of clinical skills staff	Date
Venepuncture		
Arterial blood sampling		
Cannulation		
Urinary catheterization		
Simulated suturing		
Basic Airway Management		
Nasogastric tube insertion		
Wound care		

PART 2—to be performed by yourself under supervision in a clinical setting during the year and signed by a member of the clinical staff (e.g. wards, clinics etc)

1. Phlebotomy under supervision

	1	2	3	4	5
Surname					
Date					

2. Cannulation under supervision

	1	2	3	4	5
Surname					
Date					

3. Arterial Blood Gas
(minimum of 1 to be completed)

	1	2
Surname		
Date		

4. ECG recording
(including lead placement)

	1	2
Surname		
Date		

5. Assisting in the operating theatre
(including scrubbing, gloving and gowning)

	1	2
Surname		
Date		

6. PR examination
(supervised and patient consent obtained – min of 1 to be completed))

	1	2
Surname		
Date		

7. Hernia examination.
(supervised and patient consent obtained)

	1	2
Surname		
Date		

8. Scrotal examination
(supervised and patient consent obtained)

	1	2
Surname		
Date		

Form 6:

Venous Thromboembolism (VTE) project

Venous thromboembolism (VTE) project aims to rasie the medical students awarness about the impact of VTE on hospitalized patients and the high mortality. It will be a part of the workplace-based assessment component of the E-portfolio.

How VTE project works

VTE project involves a comprehensive review of a patient's clinical situation and assessment of his/her risk factors for VTE as well as the risks of bleeding. Then based on the patient's VTE risk, a decision should be made about the appropriate VTE prophylaxis.

Using VTE project feedback

The educational supervisor will give you an immediate feedback during module sign-off meeting. You have to develop a learning plan based on the received feedback.

After completing VTE project

You are expected to upload the form to your E-portfolio by the end of each horizontal module.

Venous Thromboembolism (VTE) project

Student Name:_____ **Module**_____

Gender :	☐**Male** ☐**Female**	**Venue:**	☐ Hospital ward ☐ Outpatient clinic ☐ Other .....
Age:		**Date studied:**	

Diagnosis:	

Medical history, including. drug history, personal and family history of previous VTE:

Current treatment episode:

Risk assessment 1. State risk factors:	Prescribed DVT prophylaxis regimen with dates (consider both pharmacological and mechanical)
2. State risks of bleeding:	Was the prescribed DVT prophylaxis for this patient appropriate? Y/N *If not, what would you have done differently?*
3. What do you consider to be the patient's risk of VTE? (Low or high risk) and why?	Have any doses been missed? Y/N If yes, explain.

Case discussed with: ☐ **Consultant** ☐ **Other clinician** ☐ **Pharmacist**

Assessor name: **Assessor Signature:** **Date:**		**Student Signature:** **Date:**

* *Each project must be signed off by your educational supervisor.*

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أم القرى جامعة
مطبعة