

ALLIANCE HEALTHCARE (PVT) LTD.

Medical Student Elective/Selective Guide



Northwest School of Medicine

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INTRODUCTION

This Electives Guide is designed to assist health professions students in selecting and completing elective courses during their academic studies. Elective courses can provide students with an opportunity to explore topics beyond the core curriculum, gain specialized knowledge and skills, and expand their career prospects. This guide outlines the general process of selecting electives, provides a list of popular electives for health professions students, and includes some tips for success in elective courses. Elective courses offer health professions students a chance to expand their knowledge and skills, explore different career paths, and enrich their academic experience. By following the guidelines in this Electives Guide, students can make informed decisions about their elective courses and maximize their success in these courses.

ELECTIVES VISION, MISSION, OBJECTIVES, OUTCOMES

Mission: To provide students with an opportunity to explore specialized areas of medicine in a supportive and collaborative environment, where they can develop critical thinking, problem-solving, and communication skills, as well as gain exposure to the latest research and technologies in their field of interest.

Vision: To create an engaging and dynamic learning experience that fosters a deep understanding of medical specialties and prepares students for future careers as healthcare professionals.

Objectives:

- 1. To introduce students to the key concepts, principles, and practices of a specific medical specialty.
- 2. To provide students with hands-on clinical experience through supervised patient care, and other practical learning activities.
- 3. To develop students' ability to critically evaluate and apply evidence-based medical knowledge to diagnose and treat patients.
- 4. To enhance students' communication and interpersonal skills with patients, families, and colleagues in a clinical setting.
- 5. To foster students' understanding of the ethical, legal, and social issues related to the practice of medicine in their chosen specialty.
- 6. To encourage students to engage in self-reflection and lifelong learning, and to promote their professional development as healthcare providers.

Outcomes:

- 1. Students will be able to demonstrate a deep understanding of the key concepts, principles, and practices of their chosen medical specialty.
- 2. Students will be able to apply evidence-based medical knowledge to diagnose and treat patients with a high level of accuracy and efficiency.
- 3. Students will be able to communicate effectively and empathetically with patients, families, and colleagues in a clinical setting.
- 4. Students will be able to analyze and solve complex medical problems, and to make informed decisions based on patient data and clinical evidence.
- 5. Students will be able to demonstrate ethical and professional behavior in all aspects of their practice, and to recognize and respond appropriately to social and cultural issues that impact patient care.
- 6. Students will be able to continue their education and professional development beyond the elective, through ongoing learning and participation in medical communities and organizations.

Selecting Electives

- 1. Review your program requirements and any restrictions on elective courses
- 2. Determine your academic interests and career goals
- 3. Consider courses that align with your interests and goals
- 4. Seek advice from academic advisors, faculty, and fellow students
- 5. Research course descriptions, prerequisites, and availability
- 6. Balance your workload and consider time management

Tips for Success in Elective Courses

- 1. Be organized and manage your time effectively
- 2. Attend all classes and participate actively
- 3. Complete assignments on time and to the best of your ability
- 4. Seek help when needed, such as from professors, tutors, or academic advisors
- 5. Network and build relationships with classmates and faculty
- 6. Take advantage of opportunities for extracurricular activities, research, and internships
- 7. Reflect on your experiences and apply what you learned to your academic and career goals

INSTRUCTIONS

1. Elective Eligibility Criteria

- i. Meeting the prerequisite requirements for the elective course
- ii. Being in good academic standing
- iii. Having a certain level of progress in the program

2. Required Documents

3. Forms

4. Attendance during Elective Clinical Rotations

Alliance Healthcare has a clear and specific attendance policy for elective clinical rotations outlining the expectations for attendance and the consequences of non-compliance. Attendance

Expectations:

- Attendance is mandatory for all scheduled clinical rotations, including all clinical activities, conferences, and meetings.
- Attendance should be punctual, and students should remain present for the full duration of the session.
- Students should not schedule any other activities, such as interviews or personal appointments, during their clinical rotations.

Consequences of Non-Attendance:

- A student who misses a clinical rotation without prior approval will be considered absent.
- Students who miss more than two clinical rotations will be contacted by the **departmental elective director** and may be required to meet with the department chair to discuss their absence.
- Repeated absences may result in dismissal from the program.

Absence Policy:

- Students should notify the departmental elective director as soon as possible if they are unable to attend a clinical rotation due to illness or an emergency.
- Students should contact the elective coordinator at least two weeks in advance if they need to reschedule a clinical rotation due to extenuating circumstances.
- Students are responsible for making up any missed clinical rotations at a later date as determined by the departmental elective director.

Exemptions:

• Exceptions to the attendance policy may be granted in exceptional circumstances, such as a medical condition or a family emergency. Requests for exemptions should be made in writing to the **elective coordinator**, who will review and approve them on a case-by-case basis.

It is important to note that the attendance policy should be clearly communicated to all students at the beginning of the elective clinical rotation, and that any changes or updates to the policy should be communicated promptly to all students.

SPECIALTY SELECTION GUIDE

Anesthesia

CONTACT:
Elective Coordinator
Phone:
Cell:
Email:

DESCRIPTION:

Location: Northwest General Hospital/Northwest Teaching Hospital Availability: During summer holidays Duration/Timing: 2-4 weeks/8:00am-4:00pm Approved by: Department Head Number of Students Accepted: 2-3/month Prerequisite(s): Year 3, 4, 5 of MBBS Faculty Drs: Prof. Akbar Said Jan, Prof. Nighat Aziz, Dr. Hayat Elective Director: Dr Hayat?? Contact: electives.coordinator@ahl.pk , +92 91 5860....

Overview:

Anesthesia is a specialized medical field that focuses on providing pain relief and maintaining vital life functions during surgical procedures. An anesthesia elective can offer health professions students the opportunity to gain practical experience in this important medical specialty. Here is some information to consider when selecting an anesthesia elective:

Prerequisites:

- Completion of basic science and clinical coursework in medical school
- Understanding of pharmacology and physiology
- Knowledge of airway management and cardiopulmonary resuscitation

Goals:

- Gain practical experience in administering anesthesia for different types of surgeries and procedures
- Learn about various anesthesia techniques, drugs, and equipment used in anesthesia practice
- Observe and participate in patient evaluation, monitoring, and care during and after surgery
- Enhance skills in communication, teamwork, and professionalism in an anesthesia team

Duration:

- Minimum 2 weeks, Maximum 4 weeks
- Timings: 8:00am 4:00pm

Curriculum:

- Introduction to anesthesia practice, including the history, scope, and current issues in anesthesia
- Anatomy and physiology relevant to anesthesia, including the respiratory, cardiovascular, and nervous systems
- Pharmacology and pharmacokinetics of anesthetic agents, including their indications, contraindications, and adverse effects
- Techniques for airway management, ventilation, and resuscitation in emergency situations
- Monitoring and management of anesthesia-related complications, such as hypoventilation, hypotension, and airway obstruction
- Patient evaluation, selection, and preparation for anesthesia, including informed consent and preoperative assessment
- Pain management and postoperative care, including analgesic drugs and regional anesthesia techniques
- Communication, teamwork, and ethical considerations in the anesthesia team, including interactions with surgeons, nurses, and other healthcare professionals

Assessment:

- Anesthesia electives may include practical assessments, such as observation and evaluation of the student's performance during clinical cases
- Written or oral exams or other forms of evaluation to assess the student's knowledge and skills in anesthesia practice

Conclusion:

An anesthesia elective can provide health professions students with an opportunity to gain valuable practical experience in this important medical specialty. By considering the prerequisites, goals, duration, curriculum, and assessment options, students can select an anesthesia elective that aligns with their interests and career goals and maximizes their learning experience.

Cardiology

CONTACT: Elective Coordinator Phone: Cell: Email:

DESCRIPTION:

Location: Northwest General Hospital/Northwest Teaching Hospital Availability: During summer holidays Duration and Timing: Minimum: 2 weeks, Maximum: 4 weeks, 8:00am-4:00pm

Approved by: Department Head Number of Students Accepted: 2-3/month. Prerequisite(s): Year 3, 4, 5 of MBBS Faculty Drs: Dr Ahmad Fawad, Dr Hamid Mehmood Elective Director: Contact: elective.coordinator@ahl.pk , +92 91 5860....

Overview

Cardiology is the branch of medicine that deals with the study, diagnosis, and treatment of disorders of the heart and blood vessels. It is an exciting and rapidly evolving field with a focus on patient care, clinical research, and technological advancements.

Duration

Minimum: 2 weeks, Maximum: 4 weeks

Learning Objectives

During an elective in Cardiology, you can expect to:

- Develop a thorough understanding of the anatomy and physiology of the heart and cardiovascular system.
- Learn about the common diagnostic tools used in cardiology, including electrocardiography (ECG), echocardiography, and stress tests.
- Gain experience in interpreting diagnostic tests and assessing patients with a range of cardiovascular conditions.
- Observe and participate in the management of patients with various cardiac diseases, such as coronary artery disease, heart failure, and arrhythmias.
- Learn about the latest advances in cardiology, including innovative therapies and procedures.

Target Audience

Electives in Cardiology at Northwest are typically aimed at medical students, residents, and fellows who are interested in pursuing a career in cardiology or related fields.

Pre-requisites:

Prior to starting an elective in Cardiology, it is recommended that you have a solid foundation in basic medical sciences, including anatomy, physiology, and pharmacology and prior experience in internal medicine core clerkship.

Evaluation:

Students are usually evaluated based on their performance during the elective, including their knowledge of cardiology, their clinical skills, and their ability to work as part of a team. The electees may be asked to prepare and submit a written report or presentation on a specific topic in cardiology.

Career Opportunities:

An elective in Cardiology can be a great stepping stone to a career in this exciting field. Career options include becoming a cardiologist, cardiac surgeon, or researcher, among others. Cardiology is a rapidly evolving field with many opportunities for career growth and development.

In summary, an elective in Cardiology provides an excellent opportunity for medical students, residents, and fellows to gain experience in the diagnosis, treatment, and management of cardiovascular disorders. It can be an exciting and rewarding experience that can help to prepare you for a career in this fascinating field.

Cardiothoracic Surgery

CONTACT:		
Elective Coordinator		
Phone:		
Cell:		
Email:		

DESCRIPTION:

Location: Northwest General Hospital/Northwest Teaching Hospital Availability: During summer holidays Duration/Timing: 2-4 weeks/8:00am-4:00pm Approved by: Department Head Number of Students Accepted: 2-3/month Prerequisite(s): Year 3, 4, 5 of MBBS Faculty Drs: Prof. Niaz Ali, Prof. Zahoor Ahmad Elective Director: Contact: <u>electives.coordinator@ahl.pk</u>, +92 91 5860....

Overview

Cardiothoracic surgery is a specialized field of medicine that focuses on surgical treatment of diseases affecting the chest, heart, and great vessels. An elective in cardiothoracic surgery is an opportunity for medical students and residents to gain experience and training in this challenging and exciting field.

Duration

Minimum: 2 weeks, Maximum: 4 weeks

Learning Objectives

- 1. During an elective in cardiothoracic surgery, you can expect to:
- Develop a thorough understanding of the anatomy and physiology of the thoracic cavity, heart, and great vessels.

- Gain experience in performing and assisting with a range of surgical procedures, such as coronary artery bypass grafting (CABG), valve replacement, and lung resection.
- Observe and participate in the management of patients with various cardiovascular and thoracic conditions, such as aortic aneurysm, lung cancer, and congenital heart defects.
- Learn about the latest advances in cardiothoracic surgery, including innovative therapies and procedures.
- Develop the technical and communication skills required to work as part of a surgical team.

Target Audience

Electives in cardiothoracic surgery are typically aimed at medical students, residents, and fellows who are interested in pursuing a career in this field.

Pre-requisites

Prior to starting an elective in cardiothoracic surgery, it is recommended that you have a solid foundation in basic medical sciences, including anatomy, physiology, and pharmacology. Some programs may also require prior experience in surgery or other related fields.

Weekly Schedule

Week 1:

- Day 1: Orientation, meet the team, review goals and expectations.
- Day 2-5: Observe in the operating room (OR) for procedures such as coronary artery bypass grafting (CABG), valve replacements, and aortic aneurysm repair.
- Day 6-7: Attend rounds, lectures, and conferences with the cardiothoracic surgery team.

Week 2:

- Day 1-3: Participate in preoperative evaluations of patients, learn about workup, and decision-making for surgery.
- Day 4-5: Assist in the OR, observe or scrub in for procedures such as valve replacements or minimally invasive thoracic surgeries.
- Day 6-7: Attend rounds, lectures, and conferences with the cardiothoracic surgery team.

Week 3:

- Day 1-3: Participate in postoperative care, monitor patients, and assist with management of complications.
- Day 4-5: Observe and assist with thoracic surgeries such as lung resections or esophagectomies.
- Day 6-7: Attend rounds, lectures, and conferences with the cardiothoracic surgery team.

Week 4:

- Day 1-3: Participate in follow-up appointments, learn about long-term care and management of patients who underwent surgery.
- Day 4-5: Observe and assist with heart and lung transplants.
- Day 6-7: Attend rounds, lectures, and conferences with the cardiothoracic surgery team.

Throughout the elective, you will have the opportunity to work with the cardiothoracic surgery team, including attending physicians, residents, and nurses. You will also have the opportunity to attend lectures and conferences on various topics in cardiothoracic surgery, as well as participate in discussions on patient care and management.

It is important to note that this schedule is just an example and can be adjusted based on your goals and the specific opportunities available at your elective site. Be sure to communicate with your supervisor and mentor to optimize your experience and make the most of your elective in cardiothoracic surgery.

Evaluation

Students are usually evaluated based on their performance during the elective, including their knowledge of cardiothoracic surgery, their clinical skills, and their ability to work as part of a team. Some programs may also require a written report or presentation on a specific topic in cardiothoracic surgery.

Career Opportunities

An elective in cardiothoracic surgery can be a great steppingstone to a career in this field. Career options include becoming a cardiothoracic surgeon, researcher, or educator, among others. Cardiothoracic surgery is a demanding and rewarding field with many opportunities for career growth and development.

In summary, an elective in cardiothoracic surgery is a unique opportunity to gain hands-on experience in a specialized field of medicine. It can be an exciting and challenging experience that can help to prepare you for a career in this fascinating field.

Dermatology

CONTACT:	
Elective Coordinator	
Phone:	
Cell:	
Email:	

DESCRIPTION:

Location: Northwest General Hospital/Northwest Teaching Hospital Availability: During summer holidays Duration/Timing: 2-4 weeks/8:00am-4:00pm Approved by: Department Head Number of Students Accepted: 2-3/month Prerequisite(s): Year 3, 4, 5 of MBBS Faculty Drs: Dr Izharullah Babar, Dr Humera Gillani Elective Director: Contact: electives.coordinator@ahl.pk , +92 91 5860....

Overview

Dermatology is the branch of medicine that deals with the diagnosis and treatment of skin, hair, and nail disorders. An elective in dermatology is an opportunity for medical students and residents to gain experience and training in the diagnosis and management of skin disorders. An elective in dermatology is a clinical rotation typically offered to medical students in their third, fourth or final year of study or to residents in training.

Duration

Minimum: 2 weeks, Maximum: 4 weeks

Learning Objectives

During an elective in dermatology, you can expect to:

- During the elective, students will learn about the principles and practices of dermatology, including the anatomy and physiology of the skin, common skin diseases, and their management.
- Students will have the opportunity to observe and participate in procedures such as skin biopsies, cryotherapy, and surgical excisions.
- Students may also learn about the use of various diagnostic tools such as skin scraping, patch testing, and dermoscopy.
- Gain experience in the diagnosis and management of a wide range of dermatological conditions, including inflammatory, infectious, and neoplastic disorders.
- Learn about the latest advances in dermatology, including innovative therapies and procedures.
- Develop the technical and communication skills required to work as part of a dermatology team.

Target Audience

Electives in dermatology are typically aimed at medical students, residents, and fellows who are interested in pursuing a career in this field.

Pre-requisites

Prior to starting an elective in dermatology, it is recommended that you have a solid foundation in basic medical sciences, including anatomy, physiology, and pharmacology. You shall also have prior experience in internal medicine or other related fields as core clinical clerkship.

Typical Schedule

The elective may include lectures, case studies, and hands-on training in the use of equipment and procedures.

Week 1:

- Introduction to dermatology
- Anatomy and physiology of the skin
- Common skin diseases: acne, eczema, psoriasis, dermatitis, fungal infections, and viral infections
- Skin biopsy techniques and interpretation of results
- Hands-on training in the use of diagnostic tools

Week 2:

- Skin cancer: types, diagnosis, and management
- Cryotherapy and surgical excisions of skin lesions
- Management of skin infections and infestations
- Use of topical and systemic medications in dermatology
- Case studies and interpretation of images

Week 3:

- Pediatric dermatology
- Cosmetic dermatology: laser treatments, chemical peels, and injectables
- Use of dermoscopy in diagnosis and treatment
- Ethics and professionalism in dermatology
- Wrap-up and review of key concepts

Overall, an elective in dermatology provides medical students with valuable insights into the diagnosis and management of common skin disorders. It offers an opportunity for students to learn from experienced dermatologists, participate in clinical procedures, and gain practical skills that can be applied in their future practice.

Evaluation

Students are usually evaluated based on their performance during the elective, including their knowledge of dermatology, their clinical skills, and their ability to work as part of a team. You may also be required to present a written report or deliver a presentation on a specific topic in dermatology.

Career Opportunities

An elective in dermatology can be a great steppingstone to a career in this field. Career options include becoming a dermatologist, researcher, or educator, among others. Dermatology is a rapidly evolving field with many opportunities for career growth and development.

In summary, an elective in dermatology is a unique opportunity to gain hands-on experience in a specialized field of medicine. It can be an exciting and rewarding experience that can help to prepare you for a career in this fascinating field.

Emergency Medicine

CONTACT: Elective Coordinator Phone: Cell: Email:

DESCRIPTION:

Location: Northwest General Hospital/Northwest Teaching Hospital Availability: During summer holidays Duration/Timing: 2-4 weeks/8:00am-4:00pm Approved by: Department Head Number of Students Accepted: 2-3/month Prerequisite(s): Year 3, 4, 5 of MBBS Faculty Drs: Dr Sajjad Ali Khan Elective Director: Contact: <u>electives.coordinator@ahl.pk</u>, +92 91 5860....

Overview

An elective in emergency medicine is an opportunity for medical students and residents to gain experience and training in the management of acute medical and surgical emergencies. An elective in emergency medicine is a clinical rotation typically offered to medical students in their third or fourth year of study or to residents in training. Emergency medicine is a specialty that focuses on the diagnosis and treatment of acute medical and surgical conditions that require immediate attention.

Duration

Minimum: 2 weeks, Maximum: 4 weeks

Learning Objectives

During an elective in emergency medicine, you can expect to:

• Develop a thorough understanding of the principles and practices of emergency medicine, including the assessment, stabilization, and management of critically ill and injured patients.

- Learn about the latest advances in emergency medicine, including innovative therapies and procedures.
- During the elective, students will learn about the principles and practices of emergency medicine, including the initial assessment and stabilization of patients in acute distress.
- Students will have the opportunity to observe and participate in the management of a variety of acute medical and surgical conditions such as trauma, cardiac arrest, stroke, sepsis, and respiratory failure.
- Students may also learn about the use of various diagnostic tools such as imaging studies, laboratory tests, and bedside procedures.
- Develop the technical and communication skills required to work as part of a multidisciplinary emergency team.

Target Audience

Electives in emergency medicine are typically aimed at medical students, residents, and fellows who are interested in pursuing a career in this field.

Pre-requisites

Prior to starting an elective in emergency medicine, it is recommended that you have a solid foundation in basic medical sciences, including anatomy, physiology, and pharmacology. You will also be required to have prior experience in internal medicine, surgery, or critical care.

Typical Schedule

Week 1:

- Introduction to emergency medicine
- Initial assessment and stabilization of the critically ill patient
- Trauma management: assessment, resuscitation, and surgical interventions
- Airway management and mechanical ventilation
- Hands-on training in basic life support and advanced cardiac life support

Week 2:

- Management of cardiovascular emergencies: chest pain, acute myocardial infarction, and arrhythmias
- Management of neurological emergencies: stroke, seizure, and altered mental status.
- Management of respiratory emergencies: acute exacerbation of COPD, asthma, and pulmonary embolism
- Use of imaging studies in emergency medicine
- Case studies and interpretation of images

Week 3:

- Management of infectious diseases: sepsis, pneumonia, and meningitis
- Management of obstetric and gynecologic emergencies
- Management of toxicological emergencies: drug overdose, poisoning, and envenomation
- Ethics and professionalism in emergency medicine
- Wrap-up and review of key concepts

Evaluation

Students are usually evaluated based on their performance during the elective, including their knowledge of emergency medicine, their clinical skills, and their ability to work as part of a team. You may also be required to present a written report or deliver a presentation on a specific topic in emergency medicine.

Career Opportunities

An elective in emergency medicine can be a great steppingstone to a career in this field. Career options include becoming an emergency physician, researcher, or educator, among others. Emergency medicine is a demanding and exciting field with many opportunities for career growth and development.

In summary, an elective in emergency medicine is a unique opportunity to gain hands-on experience in a specialized field of medicine. It can be an exciting and challenging experience that can help to prepare you for a career in this dynamic and rewarding field. Overall, an elective in emergency medicine provides medical students with valuable insights into the diagnosis and management of acute medical and surgical conditions. It offers an opportunity for students to learn from experienced emergency physicians, participate in clinical procedures, and gain practical skills that can be applied in their future practice.

Family Medicine

CONTACT: Elective Coordinator Phone: Cell: Email:

DESCRIPTION:

Location: Northwest General Hospital/Northwest Teaching Hospital Availability: During summer holidays Duration/Timing: 2-4 weeks/8:00am-4:00pm Approved by: Department Head Number of Students Accepted: 2-3/month Prerequisite(s): Year 3, 4, 5 of MBBS Faculty Drs: Elective Director:

Contact: electives.coordinator@ahl.pk , +92 91 5860....

Overview

An elective in family medicine is an opportunity for medical students and residents to gain experience and training in the broad range of primary care services that family physicians provide to patients of all ages. An elective in family medicine is a clinical rotation typically offered to medical students in their third or fourth year of study or to residents in training. Family medicine is a specialty that focuses on the comprehensive medical care of individuals and families.

Learning Objectives

During an elective in family medicine, you can expect to:

- Gain an understanding of the scope of family medicine, including preventive care, acute and chronic disease management, and care for patients of all ages, genders, and cultural backgrounds.
- Develop clinical skills in diagnosis, management, and coordination of care for a variety of medical conditions commonly seen in primary care, such as diabetes, hypertension, asthma, and depression.
- Learn about the importance of patient-centered care, cultural competency, and interdisciplinary teamwork in providing effective primary care services.
- Gain experience in communication skills needed to establish trust with patients and their families, conduct patient-centered interviews, and discuss difficult topics, such as end-of-life care and lifestyle modifications.

Target Audience

Electives in family medicine are typically aimed at medical students, residents, and fellows who are interested in pursuing a career in primary care and family medicine.

Pre-requisites

Prior to starting an elective in family medicine, it is recommended that you have a solid foundation in basic medical sciences, including anatomy, physiology, and pharmacology. Some programs may also require prior experience in internal medicine, pediatrics, or other primary care specialties.

Schedule

Week 1:

- Introduction to family medicine
- Comprehensive health assessments: history-taking, physical examination, and health promotion
- Management of acute illnesses: upper respiratory infections, urinary tract infections, and gastrointestinal disorders
- Introduction to chronic disease management: hypertension, diabetes, and hyperlipidemia
- Introduction to procedural skills: suturing, biopsy, and joint injections

Week 2:

- Management of mental health conditions: anxiety, depression, and substance abuse
- Management of musculoskeletal conditions: back pain, osteoarthritis, and sports injuries
- Management of women's health issues: contraception, menstrual disorders, and menopause
- Patient-centered communication and shared decision-making
- Hands-on training in basic life support and advanced cardiac life support

Week 3:

- Management of pediatric conditions: well-childcare, vaccination, and common childhood illnesses
- Management of geriatric conditions: falls, dementia, and polypharmacy
- Population health and health disparities
- Ethics and professionalism in family medicine
- Case presentations and discussion

Week 4:

- Management of complex and multisystem illnesses
- Chronic disease management: chronic obstructive pulmonary disease, heart failure, and chronic kidney disease
- Quality improvement and patient safety in family medicine
- Wrap-up and review of key concepts

Evaluation

Students are usually evaluated based on their performance during the elective, including their knowledge of family medicine, their clinical skills, and their ability to work as part of a team. You may also be required to present a written report or deliver a presentation on a specific topic in family medicine.

Career Opportunities

An elective in family medicine can be a great steppingstone to a career in primary care and family medicine. Career options include becoming a family physician, researcher, or educator, among others. Family medicine is a challenging and fulfilling field with many opportunities for career growth and development.

In summary, an elective in family medicine is a unique opportunity to gain hands-on experience in a vital field of medicine. It can be an exciting and rewarding experience that can help to prepare you for a career in primary care and family medicine. Overall, an elective in family medicine provides medical students with valuable insights into the comprehensive medical care of individuals and families. It offers an opportunity for students to learn from experienced family physicians, participate in clinical procedures, and gain practical skills that can be applied in their future practice.

General Medicine

CONTACT: Elective Coordinator Phone: Cell: Email:

DESCRIPTION:

Location: Northwest General Hospital/Northwest Teaching Hospital Availability: During summer holidays Duration/Timing: 2-4 weeks/8:00am-4:00pm Approved by: Department Head Number of Students Accepted: 2-3/month. Prerequisite(s): Year 3, 4, 5 of MBBS Faculty Drs: Elective Director: Contact: <u>electives.coordinator@ahl.pk</u>, +92 91 5860....

Overview

General medicine is a specialty that focuses on the diagnosis and management of adult medical conditions that are not limited to a specific organ system. An elective in general/internal medicine is an opportunity for medical students and residents to gain experience and training in the diagnosis, management, and treatment of a wide range of medical conditions that are commonly seen in adult patients. An elective in general medicine is a clinical rotation typically offered to medical students in their third, fourth or final year of study or to residents in training.

Learning Objectives

During an elective in general/internal medicine, you can expect to:

- Gain an understanding of the pathophysiology, diagnosis, and management of a variety of medical conditions, such as diabetes, hypertension, heart failure, and chronic obstructive pulmonary disease.
- Develop clinical skills in history-taking, physical examination, and diagnostic testing, as well as in the management of acute and chronic medical conditions.
- Learn about the importance of interdisciplinary teamwork and communication in providing patient-centered care.
- During the elective, students will learn about the principles and practices of general medicine, including the diagnosis and management of common adult medical conditions.
- Students will have the opportunity to observe and participate in the management of a variety of medical conditions such as hypertension, diabetes, heart failure, chronic obstructive pulmonary disease, and gastrointestinal disorders.

- Students may also learn about the use of various diagnostic tools such as imaging studies, laboratory tests, and invasive procedures.
- Gain experience in medical decision-making, including the selection and monitoring of appropriate treatments, patient education, and follow-up care.

Target Audience

Electives in general/internal medicine are typically aimed at medical students, residents, and fellows who are interested in pursuing a career in internal medicine, primary care, or hospital medicine.

Pre-requisites

Prior to starting an elective in general/internal medicine, it is recommended that you have a solid foundation in basic medical sciences, including anatomy, physiology, and pharmacology. You may also be required prior experience in other clinical rotations, such as surgery or pediatrics.

Weekly Schedule

The elective may include lectures, case studies, and hands-on training in the use of equipment and procedures.

Week 1:

- Introduction to general medicine
- Comprehensive health assessments: history-taking, physical examination, and health promotion
- Management of hypertension and other cardiovascular diseases
- Introduction to chronic disease management: diabetes and hyperlipidemia
- Use of imaging studies in general medicine

Week 2:

- Management of respiratory diseases: asthma, chronic obstructive pulmonary disease, and pneumonia
- Management of gastrointestinal disorders: peptic ulcer disease, inflammatory bowel disease, and liver disease
- Management of infectious diseases: urinary tract infections, pneumonia, and sepsis
- Patient-centered communication and shared decision-making

Week 3:

- Management of neurologic disorders: stroke, seizure, and dementia
- Management of renal and electrolyte disorders: chronic kidney disease, electrolyte imbalances, and acid-base disorders
- Management of endocrine disorders: thyroid disease, adrenal disorders, and metabolic disorders

• Ethics and professionalism in general medicine

Week 4:

- Management of musculoskeletal disorders: osteoarthritis, rheumatoid arthritis, and back pain
- Management of dermatologic disorders: psoriasis, eczema, and skin infections
- Quality improvement and patient safety in general medicine
- Wrap-up and review of key concepts

Evaluation

Students are usually evaluated based on their performance during the elective, including their knowledge of general/internal medicine, their clinical skills, and their ability to work as part of a team. They may also be required to present a written report or deliver a presentation on a specific topic in internal medicine.

Career Opportunities

An elective in general/internal medicine can be a great steppingstone to a career in internal medicine, primary care, or hospital medicine. Career options include becoming an internist, hospitalist, researcher, or educator, among others. Internal medicine is a challenging and dynamic field with many opportunities for career growth and development.

In summary, an elective in general/internal medicine is a unique opportunity to gain hands-on experience in a vital field of medicine. It can be an exciting and rewarding experience that can help to prepare you for a career in internal medicine, primary care, or hospital medicine. Overall, an elective in general medicine provides medical students with valuable insights into the diagnosis and management of adult medical conditions. It offers an opportunity for students to learn from experienced physicians, participate in clinical procedures, and gain practical skills that can be applied in their future practice.

Neurology

CONTACT: Elective Coordinator Phone: Cell: Email:

DESCRIPTION:

Location: Northwest General Hospital/Northwest Teaching Hospital Availability: During summer holidays Duration/Timing: 2-4 weeks/8:00am-4:00pm Approved by: Department Head

Number of Students Accepted: 2-3/month. Prerequisite(s): Year 3, 4, 5 of MBBS Faculty Drs: Elective Director: Contact: <u>electives.coordinator@ahl.pk</u>, +92 91 5860....

Overview

An elective in neurology is an opportunity for medical students and residents to gain experience and training in the diagnosis, management, and treatment of neurological disorders.

Learning Objectives

During an elective in neurology, you can expect to:

- Gain an understanding of the anatomy and function of the nervous system, including the brain, spinal cord, and peripheral nerves.
- Learn about the pathophysiology, diagnosis, and management of a variety of neurological conditions, such as stroke, epilepsy, multiple sclerosis, and Parkinson's disease.
- Develop clinical skills in history-taking, physical examination, and diagnostic testing, as well as in the management of acute and chronic neurological conditions.
- Gain experience in medical decision-making, including the selection and monitoring of appropriate treatments, patient education, and follow-up care.

Target Audience

Electives in neurology are typically aimed at medical students, residents, and fellows who are interested in pursuing a career in neurology, neurosurgery, or related fields.

Pre-requisites

Prior to starting an elective in neurology, it is recommended that you have a solid foundation in basic medical sciences, including anatomy, physiology, and pharmacology. You may also be required prior experience in other clinical rotations, such as internal medicine or pediatrics.

WEEKLY SCHEDULE

Week 1:

Day 1:

- Introduction to the neurology department, staff, and expectations
- Neurological examination: hands-on training in the components of the neurological examination
- Management of headache disorders: lecture on the evaluation and management of migraine, tension-type headache, and cluster headache

Day 2:

- Management of epilepsy and seizure disorders: lecture on the diagnosis and treatment of epilepsy and seizure disorders
- Diagnostic tests in neurology: hands-on training in the interpretation of electroencephalography (EEG) and neuroimaging
- Patient case presentation: present a patient case that illustrates a neurological disorder.

Day 3:

- Neuromuscular disorders: lecture on the diagnosis and management of myasthenia gravis, muscular dystrophy, and neuropathies
- Patient rounds: accompany a physician on rounds and observe patient evaluations and care.

Day 4:

- Neurological emergencies: lecture on the recognition and management of neurological emergencies such as stroke and status epilepticus
- Patient case discussion: group discussion of a patient case with input from attending physicians and other learners.
- Reading assignment: assigned reading on a neurology topic of choice.

Day 5:

- Neurology clinic: attend neurology clinic and participate in patient evaluations under the guidance of a physician.
- Reflection and self-assessment: reflect on the week's experiences and complete a self-assessment of skills and knowledge.

Week 2:

Day 1:

- Movement disorders: lecture on the diagnosis and management of Parkinson's disease, essential tremor, and dystonia
- Patient case presentation: present a patient case that illustrates a movement disorder.

Day 2:

- Cerebrovascular disorders: lecture on the diagnosis and management of stroke, transient ischemic attack, and cerebral aneurysms
- Patient rounds: accompany a physician on rounds and observe patient evaluations and care.

Day 3:

• Neuropsychiatric disorders: lecture on the diagnosis and management of depression, anxiety, and psychosis in neurological disorders

- Patient case discussion: group discussion of a patient case with input from attending physicians and other learners.
- Reading assignment: assigned reading on a neurology topic of choice.

Day 4:

- Neurology research: participate in ongoing research projects in the neurology department.
- Patient case presentation: present a patient case related to ongoing research.

Day 5:

- Neurology clinic: attend neurology clinic and participate in patient evaluations under the guidance of a physician.
- Reflection and self-assessment: reflect on the week's experiences and complete a self-assessment of skills and knowledge.

Week 3:

Day 1:

- Autonomic disorders: lecture on the diagnosis and management of autonomic disorders such as dysautonomia and autonomic neuropathy
- Patient case presentation: present a patient case that illustrates an autonomic disorder.

Day 2:

- Sleep disorders: lecture on the diagnosis and management of sleep disorders such as insomnia, sleep apnea, and restless leg syndrome
- Patient rounds: accompany a physician on rounds and observe patient evaluations and care.

Day 3:

- Neurological rehabilitation: lecture on the principles and practices of neurological rehabilitation
- Patient case discussion: group discussion of a patient case with input from attending physicians and other learners.
- Reading assignment: assigned reading on a neurology topic of choice.

Day 4:

- Neurology procedures: hands-on training in neurology procedures such as lumbar puncture, electromyography (EMG), and nerve conduction studies
- Patient case presentation: present a patient case that required a neurology procedure.

Day 5:

- Neurology clinic: attend neurology clinic and participate in patient evaluations under the guidance of a physician.
- Reflection and self-assessment: reflect on the week's experiences and complete a self-assessment of skills and knowledge.

Week 4:

Day 1:

- Neurology grand rounds: attend grand rounds and hear presentations by neurology faculty and guest speakers.
- Patient case presentation: present a patient case related to grand rounds topics.

Day 2:

- Neurology subspecialties: lectures on various subspecialties within neurology, such as neurooncology, neuro-immunology, and pediatric neurology
- Patient rounds: accompany a physician on rounds and observe patient evaluations and care.

Day 3:

- Neurology ethics: lecture on ethical considerations in neurology practice, including informed consent, end-of-life care, and resource allocation.
- Patient case discussion: group discussion of a patient case with input from attending physicians and other learners.
- Reading assignment: assigned reading on a neurology topic of choice.

Day 4:

- Neurology electives: participate in a specialized elective in a neurology subspecialty of interest, such as movement disorders, epilepsy, or neuro-ophthalmology.
- Patient case presentation: present a patient case related to the elective experience.

Day 5:

- Neurology clinic: attend neurology clinic and participate in patient evaluations under the guidance of a physician.
- Reflection and self-assessment: reflect on the week's experiences and complete a self-assessment of skills and knowledge.

Evaluation

Students are usually evaluated based on their performance during the elective, including their knowledge of neurology, their clinical skills, and their ability to work as part of a team. They may also be required to present a written report or presentation on a specific topic in neurology.

Career Opportunities

An elective in neurology can be a great steppingstone to a career in neurology, neurosurgery, or related fields. Career options include becoming a neurologist, neurosurgeon, researcher, or educator, among others. Neurology is a dynamic field with many opportunities for career growth and development.

In summary, an elective in neurology is a unique opportunity to gain hands-on experience in a vital field of medicine. It can be an exciting and rewarding experience that can help to prepare you for a career in neurology, neurosurgery, or related fields. Overall, this 4-week elective in neurology provides students with a comprehensive understanding of the field and hands-on experience in patient care, diagnostic tests, and procedures. The schedule includes lectures, patient rounds, case discussions, and reading assignments, as well as opportunities for research and specialized electives. By the end of the elective, students should have developed strong clinical skills, critical thinking abilities, and ethical awareness in neurology practice.

Neurosurgery

CONTACT: Elective Coordinator Phone: Cell: Email:

DESCRIPTION:

Location: Northwest General Hospital/Northwest Teaching Hospital Availability: During summer holidays Duration/Timing: 2-4 weeks/8:00am-4:00pm Approved by: Department Head Number of Students Accepted: 2-3/month Prerequisite(s): Year 3, 4, 5 of MBBS Faculty Drs: Elective Director: Contact: electives.coordinator@ahl.pk , +92 91 5860....

Overview

An elective in neurosurgery is an opportunity for medical students and residents to gain experience and training in the diagnosis and treatment of neurological disorders that require surgical intervention.

Learning Objectives

During an elective in neurosurgery, you can expect to:

- Gain an understanding of the anatomy and function of the nervous system, including the brain, spinal cord, and peripheral nerves.
- Learn about the pathophysiology, diagnosis, and surgical management of a variety of neurological conditions, such as brain tumors, stroke, spinal cord injuries, and congenital malformations.

- Develop clinical skills in patient evaluation, operative planning, surgical techniques, and postoperative management.
- Gain experience in medical decision-making, including the selection and monitoring of appropriate surgical procedures and patient education.

Target Audience

Electives in neurosurgery are typically aimed at medical students, residents, and fellows who are interested in pursuing a career in neurosurgery or related fields.

Pre-requisites

Prior to starting an elective in neurosurgery, it is recommended that you have a solid foundation in basic medical sciences, including anatomy, physiology, and pharmacology. You may also be required to have prior experience in other clinical rotations, such as general surgery or neurology.

WEEKLY SCHEDULE

Week 1:

Day 1:

- Orientation: Introduction to the elective, overview of the department, and meet with the attending neurosurgeons
- Observation: Observe neurosurgeons in the operating room, learn about pre-op and post-op care and how to scrub in
- Anatomy Review: Review of neuroanatomy to develop a basic understanding of the nervous system.

Day 2:

- Brain Tumors: Lecture on the classification, diagnosis, and treatment of brain tumors
- Case Review: Review and discuss recent cases with the attending neurosurgeons.
- Observation: Observe neurosurgeons in the operating room

Day 3:

- Spine Surgery: Lecture on the classification, diagnosis, and treatment of spinal conditions requiring surgery
- Observation: Observe neurosurgeons in the operating room
- Reading Assignment: Assigned reading on neurosurgical techniques and instruments

Day 4:

- Trauma and Emergency Neurosurgery: Lecture on the management of traumatic brain and spinal cord injuries
- Observation: Observe neurosurgeons in the emergency department and intensive care unit
- Patient Rounds: Observe patient evaluations and discuss cases with the attending neurosurgeons

Day 5:

- Neurocritical Care: Lecture on the management of critically ill neurosurgical patients
- Observation: Observe the management of patients in the neurocritical care unit
- Reading Assignment: Assigned reading on neurocritical care guidelines
- Neurosurgery clinic: attend neurosurgery clinic and participate in patient evaluations under the guidance of a neurosurgeon.
- Reflection and self-assessment: reflect on the week's experiences and complete a self-assessment of skills and knowledge.

Week 2:

Day 1:

- Functional Neurosurgery: Lecture on the management of movement disorders and epilepsy
- Observation: Observe neurosurgeons performing functional neurosurgery procedures
- Patient Rounds: Observe patient evaluations and discuss cases with the attending neurosurgeons

Day 2:

- Pediatric Neurosurgery: Lecture on the management of pediatric neurosurgical conditions
- Observation: Observe neurosurgeons performing pediatric neurosurgery procedures
- Reading Assignment: Assigned reading on pediatric neurosurgical conditions and their management

Day 3:

- Neurosurgical Oncology: Lecture on the management of brain and spinal cord tumors
- Observation: Observe neurosurgeons performing neurosurgical oncology procedures
- Patient Rounds: Observe patient evaluations and discuss cases with the attending neurosurgeons

Day 4:

- Research Opportunities: Meet with the department's research team to learn about ongoing research projects and opportunities to participate
- Observation: Observe neurosurgeons in the operating room
- Reading Assignment: Assigned reading on neurosurgical research and publication

Day 5:

- Neurosurgical Techniques: Lecture on advanced neurosurgical techniques
- Observation: Observe neurosurgeons performing complex neurosurgical procedures
- Patient Rounds: Observe patient evaluations and discuss cases with the attending neurosurgeons
- Neurosurgery clinic: attend neurosurgery clinic and participate in patient evaluations under the guidance of a neurosurgeon.

• Reflection and self-assessment: reflect on the week's experiences and complete a self-assessment of skills and knowledge.

Week 3:

Day 1:

- Review of Cases: Review and discuss recent cases with the attending neurosurgeons
- Specialized Elective: Participate in specialized electives in the neurosurgical subspecialties of interest, such as skull base surgery, neurovascular surgery, or neuro-endoscopy
- Patient Rounds: Observe patient evaluations and discuss cases with the attending neurosurgeons

Day 2:

- Research Opportunities: Meet with the department's research team to learn about ongoing research projects and opportunities to participate
- Specialized Elective: Participate in specialized electives in the neurosurgical subspecialties of interest
- Reading Assignment: Assigned reading on neurosurgical research and publication

Day 3:

- Specialized Elective: Participate in specialized electives in the neurosurgical subspecialties of interest
- Observation: Observe neurosurgeons in the operating room
- Patient Rounds: Observe patient evaluations and discuss cases with the attending neurosurgeons

Day 4:

- Research: Conduct research under the guidance of the attending neurosurgeons and research team
- Specialized Elective: Participate in specialized electives in the neurosurgical subspecialties of interest
- Reading Assignment: Assigned reading on current topics in neurosurgery

Day 5:

- Patient Rounds: Observe patient evaluations and discuss cases with the attending neurosurgeons
- Neurosurgery clinic: attend neurosurgery clinic and participate in patient evaluations under the guidance of a neurosurgeon.
- Reflection and self-assessment: reflect on the week's experiences and complete a self-assessment of skills and knowledge.

Week 4:

Day 1:

- Review of Cases: Review and discuss recent cases with the attending neurosurgeons
- Specialized Elective: Participate in specialized electives in the neurosurgical subspecialties of interest
- Patient Rounds: Observe patient evaluations and discuss cases with the attending neurosurgeons

Day 2:

- Research Opportunities: Meet with the department's research team to learn about ongoing research projects and opportunities to participate
- Specialized Elective: Participate in specialized electives in the neurosurgical subspecialties of interest
- Reading Assignment: Assigned reading on new technologies and techniques in neurosurgery

Day 3:

- Specialized Elective: Participate in specialized electives in the neurosurgical subspecialties of interest
- Observation: Observe neurosurgeons in the operating room
- Patient Rounds: Observe patient evaluations and discuss cases with the attending neurosurgeons

Day 4:

- Research: Conduct research under the guidance of the attending neurosurgeons and research team
- Specialized Elective: Participate in specialized electives in the neurosurgical subspecialties of interest
- Reading Assignment: Assigned reading on ethical and legal issues in neurosurgery

Day 5:

- Presentations: Prepare and present case presentations and research findings to the department's faculty and residents
- Patient Rounds: Observe patient evaluations and discuss cases with the attending neurosurgeons
- Neurosurgery clinic: attend neurosurgery clinic and participate in patient evaluations under the guidance of a neurosurgeon.
- Reflection and self-assessment: reflect on the week's experiences and complete a self-assessment of skills and knowledge.

Evaluation

Students are usually evaluated based on their performance during the elective, including their knowledge of neurosurgery, their clinical skills, and their ability to work as part of a team. They may also be required to present a written report or presentation on a specific topic in neurosurgery.

Career Opportunities

An elective in neurosurgery can be a great steppingstone to a career in neurosurgery or related fields. Career options include becoming a neurosurgeon, researcher, or educator, among others. Neurosurgery is a challenging but rewarding field that offers many opportunities for professional growth and development.

In summary, an elective in neurosurgery is a unique opportunity to gain hands-on experience in a critical field of medicine. It can be a challenging but rewarding experience that can help to prepare you for a career in neurosurgery or related fields. Overall, this 2–4-week elective in neurosurgery provides students with a comprehensive understanding of the field and hands-on experience in patient care, diagnostic tests, and procedures. The schedule includes lectures, patient rounds, case discussions, and reading assignments, as well as opportunities for research and specialized electives. By the end of the elective, students should have developed strong clinical skills, critical thinking abilities, and ethical awareness in neurosurgery practice.

Obstetrics and Gynecology

CONTACT: Elective Coordinator Phone: Cell: Email:

DESCRIPTION:

Location: Northwest General Hospital/Northwest Teaching Hospital Availability: During summer holidays Duration/Timing: 2-4 weeks/8:00am-4:00pm Approved by: Department Head Number of Students Accepted: 2-3/month Prerequisite(s): Year 3, 4, 5 of MBBS Faculty Drs: Elective Director: Contact: electives.coordinator@ahl.pk , +92 91 5860....

Overview

Obstetrics and gynaecology (OBGYN) is a medical specialty focused on the health of the female reproductive system, pregnancy, childbirth, and postpartum care. An elective in OBGYN is a clinical placement or rotation in which medical students or junior doctors gain practical experience in diagnosing and managing conditions related to women's reproductive health.

Learning Objectives

During an elective in obstetrics and gynecology, you can expect to gain the following:

- 1. Knowledge of maternal and fetal physiology: Understand the physiological changes during pregnancy, labor, and delivery. Learn about fetal development, fetal monitoring, and neonatal resuscitation.
- Clinical skills: Develop clinical skills in obstetric and gynecological examination, prenatal care, and management of common obstetric and gynecological conditions. Learn to perform basic obstetric and gynecological procedures such as cervical screening, pelvic examination, and normal deliveries.
- 3. Understanding of high-risk pregnancies: Understand the management of high-risk pregnancies, including preterm labor, gestational diabetes, hypertension, and multiple pregnancies.
- 4. Knowledge of gynecological conditions: Develop an understanding of common gynecological conditions such as menstrual disorders, endometriosis, and pelvic pain. Learn the diagnosis and management of abnormal Pap smears and sexually transmitted infections.
- 5. Communication skills: Develop communication skills in providing compassionate and patientcentered care, addressing sensitive issues, and communicating effectively with patients and their families.
- 6. Understanding of ethical and legal issues: Understand the ethical and legal considerations involved in obstetrics and gynecology, such as informed consent, confidentiality, and decision-making during obstetric emergencies.
- 7. Research skills: Develop research skills by participating in ongoing research projects, learning about research methods, and presenting research findings.
- 8. Professionalism: Understand the role of obstetricians and gynecologists in society, including their responsibilities as advocates for women's health, and their obligation to maintain professional standards of conduct and integrity.
- 9. Multidisciplinary approach: Develop an understanding of the multidisciplinary approach to obstetrics and gynecology, including the roles of nurses, midwives, and other healthcare providers in providing comprehensive care to women.

By achieving these learning objectives, students can gain a broad understanding of obstetrics and gynaecology, develop clinical skills, and prepare themselves for a career in this field.

Target Audience

Electives in obstetrics and gynaecology are typically aimed at medical students, residents, and fellows who are interested in pursuing a career in obstetrics and gynaecology or related fields.

Pre-requisites

Prior to starting an elective in obstetrics and gynaecology, it is recommended that you have a solid foundation in basic medical sciences, including anatomy, physiology, and pharmacology. You may also be required to have prior experience in other clinical rotations, such as internal medicine or surgery.

WEEKLY SCHEDULE

Week 1:

Day 1:

• Introduction: Introduction to the department and attending physicians, orientation to the hospital and obstetrics and gynecology services

- Patient Rounds: Observe patient evaluations and discuss cases with the attending physicians
- Obstetrics: Attend prenatal clinic or antenatal care clinic, review of fetal monitoring, and ultrasound techniques

Day 2:

- Gynecology: Attend gynecology clinics and review of cases including menstrual abnormalities, infertility, and pelvic pain
- Ultrasound Training: Participate in ultrasound training sessions for obstetrics and gynecology
- Reading Assignment: Assigned reading on obstetrics and gynecology topics

Day 3:

- Obstetrics: Attend labor and delivery floor, observe normal and complicated deliveries, learn about operative deliveries
- Gynecology: Observe gynecologic surgeries including hysterectomy, myomectomy, and ovarian cystectomy
- Patient Rounds: Observe patient evaluations and discuss cases with the attending physicians

Day 4:

- Research Opportunities: Meet with the department's research team to learn about ongoing research projects and opportunities to participate
- Obstetrics: Attend high-risk obstetrics clinic and observe management of patients with pregnancy complications
- Gynecology: Attend colposcopy clinic, review of abnormal cervical cytology and management of precancerous lesions
- Reading Assignment: Assigned reading on obstetrics and gynecology research and publications

Day 5:

- Patient Rounds: Observe patient evaluations and discuss cases with the attending physicians
- OBGYN clinic: attend OBGYN clinic and participate in patient evaluations under the guidance of a physician.
- Reflection and self-assessment: reflect on the week's experiences and complete a self-assessment of skills and knowledge.

Week 2:

Day 1:

- Obstetrics: Attend fetal monitoring and ultrasound training sessions
- Gynecology: Attend breast clinic and review of benign and malignant breast conditions
- Patient Rounds: Observe patient evaluations and discuss cases with the attending physicians

Day 2:

- Obstetrics: Attend operative obstetrics clinic and observe Cesarian deliveries, forceps and vacuum deliveries
- Gynecology: Attend urogynecology clinic, review of urinary incontinence, and pelvic floor disorders
- Reading Assignment: Assigned reading on current topics in obstetrics and gynecology

Day 3:

- Obstetrics: Attend neonatal intensive care unit (NICU), review of newborn care, and management of prematurity
- Gynecology: Attend reproductive endocrinology and infertility clinic, review of fertility preservation and assisted reproductive technologies
- Patient Rounds: Observe patient evaluations and discuss cases with the attending physicians

Day 4:

- Research: Conduct research under the guidance of the attending physicians and research team
- Obstetrics: Attend postpartum care clinic, review of management of postpartum complications
- Gynecology: Attend menopause clinic, review of management of menopausal symptoms and hormone replacement therapy
- Reading Assignment: Assigned reading on ethical and legal issues in obstetrics and gynecology

Day 5:

- Patient Rounds: Observe patient evaluations and discuss cases with the attending physicians
- OBGYN clinic: attend OBGYN clinic and participate in patient evaluations under the guidance of a physician.
- Reflection and self-assessment: reflect on the week's experiences and complete a self-assessment of skills and knowledge.

Week 3:

Day 1:

Morning: Attend a lecture on maternal-fetal medicine and high-risk pregnancies. Afternoon: Observe ultrasound scans for high-risk pregnancies.

Day 2:

Morning: Attend a lecture on preeclampsia and its management. Afternoon: Observe antenatal clinic and assist in prenatal check-ups for women with preeclampsia.

Day 3:

Morning: Attend a lecture on fetal monitoring during labor. Afternoon: Observe fetal monitoring during labor and assist in the management of fetal distress.

Day 4:

Morning: Attend a lecture on postpartum hemorrhage and its management. Afternoon: Observe the management of postpartum hemorrhage.

Day 5:

Morning: Attend a lecture on maternal mortality and morbidity. Afternoon: Observe the management of a critically ill pregnant patient. Weekend: Study and review materials from the past week.

Week 4:

Day 1:

Morning: Attend a lecture on gynecological cancers and their management. Afternoon: Observe the management of women with gynecological cancers.

Day 2:

Morning: Attend a lecture on management of abnormal Pap smears. Afternoon: Observe colposcopy clinic.

Day 3:

Morning: Attend a lecture on contraception and family planning. Afternoon: Observe family planning clinic and assist in contraceptive counseling.

Day 4:

Morning: Attend a lecture on infertility and assisted reproductive technologies. Afternoon: Observe fertility clinic and assisted reproductive technology procedures.

Day 5:

Morning: Attend a lecture on menopause and its management. Afternoon: Observe the management of menopausal women. Weekend: Review and prepare for final evaluation.

This schedule provides a balanced mix of didactic lectures, observation of clinical procedures, and handson experience in clinics and labor rooms. It covers a range of topics in obstetrics and gynecology, including high-risk pregnancies, gynecological conditions, and reproductive health. By following this schedule, students can gain a comprehensive understanding of obstetrics and gynecology and prepare themselves for a career in this field.

Evaluation

Students are usually evaluated based on their performance during the elective, including their knowledge of obstetrics and gynaecology, their clinical skills, and their ability to work as part of a team. They may also be required to present a written report or presentation on a specific topic in obstetrics and gynaecology.

Career Opportunities

An elective in obstetrics and gynaecology can be a great steppingstone to a career in obstetrics and gynaecology or related fields. Career options include becoming an obstetrician-gynaecologist, researcher,

or educator, among others. Obstetrics and gynaecology is a critical field that offers many opportunities for professional growth and development.

In summary, an elective in obstetrics and gynaecology is a unique opportunity to gain hands-on experience in a critical field of medicine. It can be a challenging but rewarding experience that can help to prepare you for a career in obstetrics and gynaecology or related fields.

Ophthalmology

CONTAC	T:
Elective	Coordinator
Phone:	
Cell:	
Email:	

DESCRIPTION:

Location: Northwest General Hospital/Northwest Teaching Hospital Availability: During summer holidays Duration/Timing: 2-4 weeks/8:00am-4:00pm Approved by: Department Head Number of Students Accepted: 2-3/month Prerequisite(s): Year 3, 4, 5 of MBBS Faculty Drs: Elective Director: Contact: electives.coordinator@ahl.pk , +92 91 5860....

Overview

Ophthalmology is a specialized medical field that focuses on the diagnosis and treatment of eye disorders. An ophthalmology elective can offer health professions students the opportunity to gain practical experience in this important medical specialty.

Prerequisites:

- Completion of basic science and clinical coursework in medical school
- Understanding of anatomy and physiology of the eye and visual system
- Knowledge of pharmacology and diagnostic testing methods used in ophthalmology

Goals:

- Gain practical experience in diagnosing and treating common eye disorders, such as refractive errors, cataracts, and glaucoma
- Learn about various diagnostic tests and equipment used in ophthalmology practice

- Observe and participate in patient evaluation, monitoring, and care in an ophthalmology clinic or hospital setting
- Enhance skills in communication, teamwork, and professionalism in an ophthalmology team

Curriculum:

- Introduction to ophthalmology practice, including the history, scope, and current issues in ophthalmology
- Anatomy and physiology of the eye and visual system, including the cornea, lens, retina, and optic nerve
- Refractive errors and their correction, including eyeglasses, contact lenses, and refractive surgery
- Common eye disorders, such as cataracts, glaucoma, macular degeneration, and diabetic retinopathy, and their diagnosis and treatment
- Diagnostic tests and equipment used in ophthalmology, such as visual acuity testing, tonometry
- Patient evaluation and management in an ophthalmology clinic or hospital setting, including informed consent and preoperative assessment
- Communication, teamwork, and ethical considerations in the ophthalmology team, including interactions with optometrists, opticians, and other healthcare professionals

Assessment:

- Ophthalmology electives may include practical assessments, such as observation and evaluation of the student's performance during clinical cases
- Students may be require a completion of written or oral exams or other forms of evaluation to assess the student's knowledge and skills in ophthalmology practice

WEEKLY SCHEDULE

Week 1:

Day 1:

- Introduction to the department and staff
- Introduction to ophthalmology practice, including history and scope of the field
- Observation of routine eye examinations, diagnosis, and treatment planning for common ophthalmologic disorders
- Observation of minor procedures, such as foreign body removal, laser therapy, and intravitreal injections

Day 2:

• Observation of comprehensive eye exams, including visual acuity testing, tonometry, and dilated fundus examination

Day 3:

- Observation of diagnostic tests and equipment used in ophthalmology, such as visual field testing
- Assistance with routine eye exams, under supervision

• Assistance with minor procedures, such as foreign body removal, laser therapy, and intravitreal injections, under supervision

Day 4:

- Observation of cataract surgery, including preoperative evaluation and postoperative care
- Exposure to ophthalmic emergency cases, such as retinal detachment, ocular trauma, and acute angle-closure glaucoma

Day 5:

• Review of cases and discussion of management strategies with ophthalmology faculty

Week 2:

Day 1:

• Observation of glaucoma clinic, including evaluation and management of patients with glaucoma

Day 2:

• Observation of cornea clinic, including evaluation and management of patients with corneal disorders

Day 3:

• Observation of pediatric ophthalmology clinic, including evaluation and management of children with eye disorders

Day 4:

• Observation of oculoplastic clinic, including evaluation and management of patients with eyelid and orbital disorders

Day 5:

• Review of cases and discussion of management strategies with ophthalmology faculty

Week 3:

Day 1:

• Observation of retina clinic, including evaluation and management of patients with retinal disorders

Day 2:

• Observation of refractive surgery, including evaluation and management of patients considering laser vision correction

Day 3:

• Observation of neuro-ophthalmology clinic, including evaluation and management of patients with neurologic disorders affecting vision

Day 4:

• Observation of low vision clinic, including evaluation and management of patients with vision loss

Day 5:

• Review of cases and discussion of management strategies with ophthalmology faculty

Week 4:

Day: 1

• Participation in clinical research projects, including data collection and analysis.

Day 2:

• Presentation of research findings to ophthalmology faculty and peers

Day 3:

• Discussion of current issues and challenges in ophthalmology practice, including ethical considerations

Day: 4

• Participation in grand rounds or other educational conferences with ophthalmology faculty and residents

Day 5:

• Final review of cases and discussion of management strategies with ophthalmology faculty

Throughout the elective, students may also attend departmental meetings and conferences, participate in research projects or case presentations, and have the opportunity to interact with patients and families from diverse backgrounds.

In summary, an ophthalmology elective can provide health professions students with an opportunity to gain valuable practical experience in this important medical specialty. By considering the prerequisites, goals, duration, curriculum, and assessment options, students can select an ophthalmology elective that aligns with their interests and career goals and maximizes their learning experience.

Orthopedics

CONTACT: Elective Coordinator Phone: Cell: Email:

DESCRIPTION:

Location: Northwest General Hospital/Northwest Teaching Hospital **Availability:** During summer holidays

Duration/Timing: 2-4 weeks/8:00am-4:00pm Approved by: Department Head Number of Students Accepted: 2-3/month Prerequisite(s): Year 3, 4, 5 of MBBS Faculty Drs: Elective Director: Contact: <u>electives.coordinator@ahl.pk</u>, +92 91 5860....

Overview

An elective in orthopaedics is a clinical rotation opportunity for medical students and residents to gain experience in the diagnosis, treatment, and management of musculoskeletal conditions.

Learning Objectives

During an elective in orthopaedics, you can expect to:

- Gain an understanding of the anatomy and physiology of the musculoskeletal system.
- Learn about the diagnosis, treatment, and management of common musculoskeletal conditions, such as fractures, sprains, strains, and osteoarthritis.
- Develop clinical skills in patient evaluation, diagnosis, and treatment, including surgical procedures.
- Learn about the rehabilitation and physical therapy of orthopaedic conditions.

Target Audience

Electives in orthopaedics are typically aimed at medical students, residents, and fellows who are interested in pursuing a career in orthopaedics or related fields.

Pre-requisites

Prior to starting an elective in orthopaedics, it is recommended that you have a solid foundation in basic medical sciences, including anatomy, physiology, and pharmacology. You may also be required to have prior experience in other clinical rotations, such as internal medicine or surgery.

WEEKLY SCHEDULE

Week 1:

Day 1: Introduction to the orthopaedics department, tour of the facilities, meet with staff and residents, and attend departmental conferences.

Day 2-3: Observe and assist in the evaluation of patients in the outpatient clinic, including taking histories and physical exams, reviewing imaging studies, and discussing treatment options with attending physicians.

Day 4-5:

- Attend surgical cases in the operating room, including observing and assisting with procedures such as arthroscopy, fracture fixation, and joint replacement surgeries.
- Reflection and self-assessment: reflect on the week's experiences and complete a self-assessment of skills and knowledge.

Week 2:

Day 1-2: Participate in rounds with the orthopaedics team, including discussing patient care plans, reviewing imaging studies, and performing physical exams.

Day 3-4: Observe and assist with procedures in the operating room, such as joint arthroplasty, spine surgery, and trauma surgeries.

Day 5:

- Attend educational sessions, such as grand rounds and journal club, and review relevant literature on common orthopaedic conditions.
- Reflection and self-assessment: reflect on the week's experiences and complete a self-assessment of skills and knowledge.

Week 3:

Day 1-2: Participate in outpatient clinics and assist in the management of patients with orthopaedic conditions, including taking histories, performing physical exams, and interpreting imaging studies.

Day 3-4: Attend surgical cases in the operating room, including complex procedures such as revision arthroplasty and complex trauma cases.

Day 5:

- Participate in research activities, such as data collection, analysis, and presentation of research findings.
- Reflection and self-assessment: reflect on the week's experiences and complete a self-assessment of skills and knowledge.

Week 4:

Day 1-2: Participate in rounds with the orthopaedics team and present patient cases, including discussing differential diagnoses, treatment plans, and follow-up care.

Day 3-4: Observe and assist with procedures in the operating room, such as arthroscopic surgery, spine surgery, and foot and ankle surgeries.

Day 5:

• Participate in educational sessions, such as case discussions, resident teaching, and review of surgical techniques and approaches.

• Reflection and self-assessment: reflect on the week's experiences and complete a self-assessment of skills and knowledge.

Evaluation

Students are usually evaluated based on their performance during the elective, including their knowledge of orthopaedics, their clinical skills, and their ability to work as part of a team. They may also be required to present a written report or presentation on a specific topic in orthopaedics.

Career Opportunities

An elective in orthopaedics can be a great steppingstone to a career in orthopaedics or related fields. Career options include becoming an orthopaedic surgeon, sports medicine physician, researcher, or educator, among others. Orthopaedics is a growing field that offers many opportunities for professional growth and development.

In summary, an elective in orthopaedics is a valuable opportunity to gain hands-on experience in a critical field of medicine. It can be a challenging but rewarding experience that can help to prepare you for a career in orthopaedics or related fields.

Otolaryngology (ENT)

CONTACT:
Elective Coordinator
Phone:
Cell:
Email:

DESCRIPTION:

Location: Northwest General Hospital/Northwest Teaching Hospital Availability: During summer holidays Duration/Timing: 2-4 weeks/8:00am-4:00pm Approved by: Department Head Number of Students Accepted: 2-3/month Prerequisite(s): Year 3, 4, 5 of MBBS Faculty Drs: Elective Director: Contact: electives.coordinator@ahl.pk , +92 91 5860....

Overview

Otolaryngology, also known as ENT (ear, nose, and throat) medicine, is a medical specialty that focuses on the diagnosis and treatment of disorders and conditions related to the head and neck. An elective in otolaryngology is a clinical placement or rotation in which medical students or junior doctors gain practical experience in diagnosing and managing conditions related to the ear, nose, and throat, as well as the head and neck. During an elective in otolaryngology, students may have the opportunity to observe and assist with various procedures and surgeries, such as tonsillectomies, adenoidectomies, sinus surgeries, and ear surgeries.

To be eligible for an elective in otolaryngology, students typically need to have completed some basic medical training, such as a pre-clinical or clinical year of study.

Electives in otolaryngology can help prepare students for careers in otolaryngology as well as related specialties like neurology, neurosurgery, and plastic surgery.

Learning Objectives

The learning objectives of an elective in otolaryngology include:

- Understanding the anatomy and physiology of the ear, nose, and throat
- Familiarizing yourself with the medical history taking, physical examination, and documentation of findings related to otolaryngology
- Learning about the interpretation of imaging studies related to the head and neck region
- Observing and understanding various surgical procedures related to otolaryngology
- Learning about the management and treatment of various conditions related to otolaryngology
- Developing communication skills with patients, their families, and other healthcare professionals

WEEKLY SCHEDULE

Week 1:

- Day 1: Introduction to the elective, meet with supervisor/mentor, tour of the department, and orientation to the hospital's facilities and equipment.
- Day 2-5:
- Attend outpatient clinics and observe patient consultations with senior otolaryngologists. Familiarize yourself with the medical history taking, physical examination, and the documentation of these findings.

Week 2:

- Day 1-2: Attend the radiology department to observe imaging studies (CT, MRI, PET) of the head and neck region to learn the interpretation of these images in Otolaryngology.
- Day 3-4: Observe surgical procedures like tonsillectomies, adenoidectomies, septoplasties, and nasal endoscopy procedures.
- Day 5: Attend multidisciplinary team meeting with audiologists, speech therapists, and oncologists.

Week 3:

- Day 1-2: Observe the treatment and management of head and neck tumors, thyroid and parathyroid gland surgeries.
- Day 3-4: Observe surgeries related to facial plastic and reconstructive surgeries.
- Day 5: Attend grand rounds or lecture series on various topics in Otolaryngology.

Week 4:

- Day 1-2: Observe laryngeal and vocal cord procedures, including videostroboscopy and laryngeal injections.
- Day 3-4: Observe cochlear implant surgeries and other audiological procedures.
- Day 5: Present a case you observed during the rotation to the department.

Throughout the elective, students may also attend departmental meetings and conferences, participate in research projects or case presentations, and have the opportunity to interact with patients and families from diverse backgrounds.

Career Opportunities

Otolaryngology is a highly specialized and rewarding medical field. There is a growing demand for otolaryngologists due to an aging population and an increase in the number of people with hearing and speech disorders. Otolaryngologists can work in hospitals, clinics, private practices, and academic settings.

Oncology

CONTACT:

Elective Coordinator
Phone:
Cell:
Email:

DESCRIPTION:

Location: Northwest General Hospital/Northwest Teaching Hospital Availability: During summer holidays Duration/Timing: 2-4 weeks/8:00am-4:00pm Approved by: Department Head Number of Students Accepted: 2-3/month Prerequisite(s): Year 3, 4, 5 of MBBS Faculty Drs: Elective Director: Contact: electives.coordinator@ahl.pk , +92 91 5860....

Overview

An elective in oncology is a clinical placement or rotation that provides medical students or junior doctors with practical experience in the diagnosis and management of cancer. Oncology is the study and treatment of cancer, a disease characterized by the uncontrolled growth and spread of abnormal cells in the body.

- 1. An elective in oncology provides students with an opportunity to observe and participate in the care of patients with various types of cancer, including breast, lung, prostate, and gastrointestinal cancers, among others.
- 2. During an elective in oncology, students may have the opportunity to learn about cancer pathology, diagnosis, staging, treatment options, and supportive care, as well as the management of cancer-related symptoms and complications.
- 3. To be eligible for an elective in oncology, students typically need to have completed some basic medical training, such as a pre-clinical or clinical year of study.
- 4. Electives in oncology can help prepare students for careers in oncology as well as related specialties like hematology, palliative care, and internal medicine.
- 5. The field of oncology is rapidly evolving, with new discoveries and advances in treatment options, such as targeted therapies, immunotherapy, and precision medicine.
- 6. During an elective in oncology, students will also learn about the psychological and social aspects of cancer care, such as communication with patients and families, and end-of-life care.

Overall, an elective in oncology provides a valuable opportunity for medical students or junior doctors to gain practical experience in the care of cancer patients and to develop skills in cancer diagnosis, management, and supportive care.

WEEKLY SCHEDULE

Week 1-2: Introduction and Observation

- Introduction to the oncology department and staff
- Observation of patient consultations and medical examinations, under supervision
- Observation of various diagnostic techniques, such as imaging studies, biopsies, and laboratory tests
- Introduction to cancer pathology, staging, and treatment options
- Introduction to supportive care for cancer patients, including pain management, nutrition, and psychosocial support

Week 3-4: Practical Experience and Assistance

- Assistance with patient consultations and medical examinations, under supervision
- Assistance with diagnostic techniques, under supervision
- Exposure to various cancer treatments, such as chemotherapy, radiation therapy, and surgery, under supervision
- Observation of multidisciplinary team meetings, such as tumor boards, to discuss patient management plans

Week 5-6: Specializations and Independent Practice

- Independent management of patient consultations and medical examinations, under supervision
- Independent participation in diagnostic techniques, under supervision
- Independent participation in patient management plans, under supervision
- Independent participation in research projects or case presentations

Throughout the elective, students may also attend departmental meetings and conferences, participate in quality improvement initiatives, and have the opportunity to interact with patients and families from diverse backgrounds. Additionally, some electives in oncology may offer community-based experiences, such as participating in cancer outreach programs or conducting research studies in underserved areas.

It's important to note that working with cancer patients can be emotionally challenging, so we may provide support and resources to students during their elective, such as counseling services or debriefing sessions.

Pediatrics

CONTACT: Elective Coordinator Phone: Cell: Email:

DESCRIPTION:

Location: Northwest General Hospital/Northwest Teaching Hospital Availability: During summer holidays Duration/Timing: 2-4 weeks/8:00am-4:00pm Approved by: Department Head Number of Students Accepted: 2-3/month Prerequisite(s): Year 3, 4, 5 of MBBS Faculty Drs: Elective Director: Contact: electives.coordinator@ahl.pk , +92 91 5860....

Overview

Pediatrics is a medical specialty that focuses on the medical care of infants, children, and adolescents, and their growth and development. An elective in pediatrics is a clinical placement or rotation in which medical students or junior doctors gain practical experience in diagnosing and managing medical conditions in children, from newborns to adolescents.

- 1. During an elective in pediatrics, students may have the opportunity to observe and assist with various procedures such as neonatal resuscitation, lumbar puncture
- 2. To be eligible for an elective in pediatrics, students typically need to have completed some basic medical training, such as a pre-clinical or clinical year of study.
- 3. Electives in pediatrics can help prepare students for careers in pediatrics as well as related specialties like neonatology, pediatric cardiology, and pediatric oncology

WEEKLY SCHEDULE

Week 1-2: Introduction and Observation

- Introduction to the department and staff
- Observation of patient consultations, diagnosis, and treatment planning for common pediatric disorders, such as asthma, infections, and behavioral disorders
- Observation of minor procedures, such as blood draws, vaccinations, and physical exams
- Introduction to the electronic medical record and the hospital's pediatric care policies
- Assistance with patient consultations, under supervision
- Assistance with minor procedures, such as blood draws, vaccinations, and physical exams, under supervision

Week 3-4: Practical Experience and Assistance

- Exposure to neonatology and the care of premature and sick newborns
- Exposure to subspecialties within pediatrics, such as pediatric cardiology, pediatric oncology, and pediatric intensive care
- Independent management of patient consultations and minor procedures, under supervision
- Independent management of pediatric emergencies, under supervision

Throughout the elective, students may also attend departmental meetings and conferences, participate in research projects or case presentations, and have the opportunity to interact with patients and families from diverse backgrounds.

Psychiatry

CONTACT: Elective Coordinator Phone: Cell: Email:

DESCRIPTION:

Location: Northwest General Hospital/Northwest Teaching Hospital Availability: During summer holidays Duration/Timing: 2-4 weeks/8:00am-4:00pm Approved by: Department Head Number of Students Accepted: 2-3/month Prerequisite(s): Year 3, 4, 5 of MBBS Faculty Drs: Elective Director: Contact: <u>electives.coordinator@ahl.pk</u>, +92 91 5860....

Overview

Psychiatry is a medical specialty that focuses on the diagnosis, treatment, and prevention of mental illnesses and disorders. An elective in psychiatry is a clinical placement or rotation in which medical students or junior doctors gain practical experience in diagnosing and managing mental health conditions.

- 1. During an elective in psychiatry, students may have the opportunity to observe and assist with various treatments and interventions, such as cognitive-behavioral therapy, medication management, and electroconvulsive therapy.
- 2. To be eligible for an elective in psychiatry, students typically need to have completed some basic medical training, such as a pre-clinical or clinical year of study.
- 3. Electives in psychiatry can help prepare students for careers in psychiatry as well as related specialties like psychology, social work, and counseling.
- 4. Mental health care is a growing area of need worldwide, making psychiatry an increasingly important field for medical students to explore.

WEEKLY SCHEDULE

Week 1-2: Introduction and Observation

- Introduction to the department and staff
- Observation of patient consultations, diagnosis, and treatment planning for common mental health disorders, such as anxiety, depression, and psychosis
- Observation of various treatment modalities, such as psychotherapy, pharmacotherapy, and electroconvulsive therapy
- Introduction to the electronic medical record and the hospital's mental health care policies

Week 3: Practical Experience and Assistance

- Assistance with patient consultations, under supervision
- Assistance with various treatment modalities, such as psychotherapy, pharmacotherapy, and electroconvulsive therapy, under supervision
- Exposure to specialized areas within psychiatry, such as child and adolescent psychiatry
- Observation of mental health emergencies and crisis intervention

Week 4: Specializations and Independent Practice

- Independent management of patient consultations, under supervision
- Independent management of various treatment modalities, such as psychotherapy, pharmacotherapy, and electroconvulsive therapy, under supervision
- Independent management of mental health emergencies and crisis intervention, under supervision
- Independent participation in case conferences and multidisciplinary team meetings

Throughout the elective, students may also attend departmental meetings and conferences, participate in research projects or case presentations, and have the opportunity to interact with patients and families from diverse backgrounds. Additionally, the elective in psychiatry may offer community-based experiences, such as working with mental health outreach programs or participating in advocacy initiatives.

Radiology

CONTACT:
Elective Coordinator
Phone:
Cell:
Email:

DESCRIPTION:

Location: Northwest General Hospital/Northwest Teaching Hospital Availability: During summer holidays Duration/Timing: 2-4 weeks/8:00am-4:00pm Approved by: Department Head Number of Students Accepted: 2-3/month Prerequisite(s): Year 3, 4, 5 of MBBS Faculty Drs: Elective Director: Contact: electives.coordinator@ahl.pk , +92 91 5860....

Overview

Radiology is a medical specialty that uses imaging techniques to diagnose and treat various diseases and conditions. An elective in radiology is a clinical placement or rotation in which medical students or junior doctors gain practical experience in the use and interpretation of imaging techniques.

- 1. During an elective in radiology, students may have the opportunity to observe and assist with various diagnostic and interventional radiology procedures, such as X-rays, CT scans, MRI scans, ultrasound, and angiography.
- 2. To be eligible for an elective in radiology, students typically need to have completed some basic medical training, such as a pre-clinical or clinical year of study.
- 3. Electives in radiology can help prepare students for careers in radiology as well as related specialties like oncology, cardiology, and emergency medicine.
- 4. Radiology plays a critical role in modern medicine, and advances in imaging technology continue to expand the diagnostic and therapeutic capabilities of this field.
- 5. During an elective in radiology, students will also learn about radiation safety and the responsible use of imaging techniques to minimize the risk of adverse effects.

WEEKLY SCHEDULE

Week 1-2: Introduction and Observation

- Introduction to the radiology department and staff
- Observation of various imaging techniques, such as X-rays, CT scans, MRI scans, ultrasound, and angiography

- Observation of image interpretation and diagnosis for common conditions, such as fractures, tumors, and infections
- Introduction to radiation safety principles and the responsible use of imaging techniques

Week 3: Practical Experience and Assistance

- Assistance with various imaging techniques, under supervision
- Assistance with image interpretation and diagnosis, under supervision
- Exposure to specialized areas within radiology, such as interventional radiology, nuclear medicine, and radiation oncology
- Observation of various radiology procedures, such as biopsies and drainages, under supervision

Week 4: Specializations and Independent Practice

- Independent management of various imaging techniques, under supervision
- Independent image interpretation and diagnosis, under supervision
- Independent participation in case conferences and multidisciplinary team meetings
- Independent participation in research projects or case presentations

Throughout the elective, students may also attend departmental meetings and conferences, participate in quality improvement initiatives, and have the opportunity to interact with patients and families from diverse backgrounds. Additionally, the elective in radiology may offer community-based experiences, such as participating in radiology outreach programs or conducting imaging studies in rural or underserved areas.

Surgery

CONTACT: Elective Coordinator Phone: Cell: Email:

DESCRIPTION:

Location: Northwest General Hospital/Northwest Teaching Hospital Availability: During summer holidays Duration/Timing: 2-4 weeks/8:00am-4:00pm Approved by: Department Head Number of Students Accepted: 2-3/month Prerequisite(s): Year 3, 4, 5 of MBBS Faculty Drs: Elective Director: Contact: electives.coordinator@ahl.pk , +92 91 5860....

Overview

Surgery is a branch of medicine that deals with the treatment of injuries, diseases, and deformities through operative procedures. An elective in surgery is a clinical placement or rotation that provides medical students or junior doctors with practical experience in the field of surgery.

- 1. An elective in surgery provides students with an opportunity to observe and participate in surgical procedures, learn about surgical techniques and methods, and acquire skills in the diagnosis and management of surgical cases.
- 2. During an elective in surgery, students may have the opportunity to work in various surgical specialties, including general surgery, orthopedic surgery, cardiothoracic surgery, neurosurgery, and plastic surgery, among others.
- 3. To be eligible for an elective in surgery, students typically need to have completed some basic medical training, such as a pre-clinical or clinical year of study, and be interested in pursuing a career in surgery.
- 4. Electives in surgery can help prepare students for careers in surgery, as well as related specialties like anesthesia, critical care, and emergency medicine.
- 5. During an elective in surgery, students will also learn about the management of surgical patients, including preoperative evaluation and preparation, postoperative care, and pain management.
- 6. The field of surgery is rapidly evolving, with new surgical techniques and technologies constantly being developed and implemented.

Overall, the elective in surgery provides a valuable opportunity for medical students or junior doctors to gain practical experience in the field of surgery and to develop skills in surgical diagnosis, management, and operative procedures.

WEEKLY SCHEDULE

Week 1-2: Introduction and Observation

- Introduction to the surgery department and staff
- Observation of surgical procedures, under supervision
- Introduction to surgical instruments and equipment
- Observation of surgical techniques, including suture techniques, wound closure, and hemostasis
- Introduction to preoperative and postoperative care, including patient evaluation and management

Week 4: Practical Experience and Assistance

- Assistance with surgical procedures, under supervision
- Exposure to various surgical specialties, such as general surgery, orthopedic surgery, neurosurgery, and plastic surgery, among others
- Introduction to minimally invasive surgery techniques, such as laparoscopy and endoscopy
- Introduction to trauma surgery and emergency surgical procedures
- Participation in surgical rounds and patient care, under supervision

Week 4: Specializations and Independent Practice

• Independent management of surgical patients, under supervision

- Independent participation in surgical procedures, under supervision
- Exposure to specialized areas of surgery, such as transplant surgery, pediatric surgery, or oncological surgery
- Independent participation in research projects or case presentations
- Opportunities to attend conferences and surgical workshops.

Throughout the elective, students may also attend departmental meetings and conferences, participate in quality improvement initiatives, and have the opportunity to interact with patients and families from diverse backgrounds. Additionally, the elective in surgery may offer community-based experiences, such as participating in surgical outreach programs or conducting research studies in underserved areas.

It's important to note that working in surgery can be physically and emotionally challenging, so we may provide support and resources to students during their elective, such as counseling services or debriefing sessions.

Urology

CONTACT:
Elective Coordinator
Phone:
Cell:
Email:

DESCRIPTION:

Location: Northwest General Hospital/Northwest Teaching Hospital Availability: During summer holidays Duration/Timing: 2-4 weeks/8:00am-4:00pm Approved by: Department Head Number of Students Accepted: 2-3/month Prerequisite(s): Year 3, 4, 5 of MBBS Faculty Drs: Elective Director: Contact: electives.coordinator@ahl.pk , +92 91 5860....

Overview

Urology is a branch of medicine that deals with the diagnosis, treatment, and management of disorders of the urinary tract system, including the kidneys, bladder, and urethra. An elective in urology is a clinical placement or rotation that provides medical students or junior doctors with practical experience in the field of urology.

Learning Outcomes

1. An elective in urology provides students with an opportunity to observe and participate in urological procedures, learn about urological techniques and methods, and acquire skills in the diagnosis and management of urological cases.

- 2. During an elective in urology, students may have the opportunity to work in various urological subspecialties, including endourology, urologic oncology, female urology, and pediatric urology.
- 3. Electives in urology can help prepare students for careers in urology, as well as related specialties like oncology, nephrology, and gynecology.
- 4. During an elective in urology, students will also learn about the management of urological patients, including preoperative evaluation and preparation, postoperative care, and pain management.

Pre-requisite

To be eligible for an elective in urology, students typically need to have completed some basic medical training, such as a pre-clinical or clinical year of study and be interested in pursuing a career in urology.

Overall, an elective in urology provides a valuable opportunity for medical students or junior doctors to gain practical experience in the field of urology and to develop skills in urological diagnosis, management, and operative procedures. The field of urology is rapidly evolving, with new urological techniques and technologies constantly being developed and implemented.

WEEKLY SCHEDULE

Week 1-2: Introduction and Observation

- Introduction to the urology department and staff
- Observation of urological procedures, under supervision
- Introduction to urological instruments and equipment
- Observation of urological techniques, including cystoscopy, ureteroscopy, and TURP
- Introduction to preoperative and postoperative care, including patient evaluation and management.

Week 3: Practical Experience and Assistance

- Assistance with urological procedures, under supervision
- Exposure to various urological specialties, such as urologic oncology, endourology, female urology, and pediatric urology, among others
- Introduction to minimally invasive urological surgery techniques, such as laparoscopy and robotic surgery
- Introduction to urological trauma and emergency procedures
- Participation in urological rounds and patient care, under supervision

Week 4: Specializations and Independent Practice

- Independent management of urological patients, under supervision
- Independent participation in urological procedures, under supervision
- Exposure to specialized areas of urology, such as andrology, neurourology, or reconstructive urology

- Independent participation in research projects or case presentations
- Opportunities to attend conferences and urological workshops.

Throughout the elective, students may also attend departmental meetings and conferences, participate in quality improvement initiatives, and have the opportunity to interact with patients and families from diverse backgrounds. Additionally, the elective in urology may offer community-based experiences, such as participating in urological outreach programs or conducting research studies in underserved areas.

It's important to note that working in urology can be physically and emotionally challenging, so we may provide support and resources to students during their elective, such as counseling services or debriefing sessions.

Endocrinology

CONTACT: Elective Coordinator Phone: Cell: Email:

DESCRIPTION:

Location: Northwest General Hospital/Northwest Teaching Hospital Availability: During summer holidays Duration/Timing: 2-4 weeks/8:00am-4:00pm Approved by: Department Head Number of Students Accepted: 2-3/month Prerequisite(s): Year 3, 4, 5 of MBBS Faculty Drs: Elective Director: Contact: electives.coordinator@ahl.pk , +92 91 5860....

Overview

- Endocrinology is a branch of medicine that deals with the endocrine system, which includes glands and hormones that regulate various bodily functions, such as growth, metabolism, and reproduction.
- An elective in endocrinology is a clinical rotation that provides students with the opportunity to gain knowledge and experience in the diagnosis, treatment, and management of endocrine disorders.
- Endocrinologists diagnose and treat a variety of disorders, including diabetes, thyroid disorders, adrenal disorders, pituitary disorders, and reproductive disorders.

Learning Outcomes:

• Gain knowledge and understanding of the pathophysiology of endocrine disorders.

- Learn to perform a thorough history and physical examination of patients with endocrine disorders.
- Learn to interpret laboratory tests used in the diagnosis and management of endocrine disorders.
- Gain experience in the management of common endocrine disorders, such as diabetes, thyroid disorders, and osteoporosis.
- Observe and participate in procedures commonly performed in endocrinology, such as fineneedle aspiration biopsy of thyroid nodules or continuous glucose monitoring.
- Learn about new and emerging treatments and technologies in endocrinology.

Activities:

- Shadowing and working alongside endocrinologists to gain hands-on experience in the diagnosis and management of endocrine disorders.
- Participating in patient care, including history-taking, physical examination, ordering and interpreting laboratory tests, and developing treatment plans.
- Attending endocrine clinics, including diabetes, thyroid, adrenal disorders, and reproductive endocrinology.
- Attending and presenting at endocrine conferences and meetings.
- Participating in research projects or quality improvement initiatives related to endocrinology.

It's important to note that endocrinology is a complex and rapidly evolving field, so students should be prepared to stay up-to-date with current research and practice guidelines. Additionally, students will need to work closely with patients and their families, so strong communication and interpersonal skills are essential.

WEEKLY SCHEDULE

Week 1:

- Orientation to the endocrinology service and the hospital or clinic where the elective is taking place
- Introduction to the endocrine system and common endocrine disorders
- Shadowing and observing endocrinologist in the clinic and hospital setting
- Participating in patient care, including history-taking and physical examination of patients with endocrine disorders

Week 2:

- Continued observation of endocrinologists in the clinic and hospital setting
- Participating in endocrine clinics
- Interpretation of laboratory tests used in the diagnosis and management of endocrine disorders
- Participation in procedures commonly performed in endocrinology, such as fine-needle aspiration biopsy of thyroid nodules

Week 3:

- Continued participation in endocrine clinics and patient care
- Participation in conferences and meetings related to endocrinology
- Discussion of current research and practice guidelines in endocrinology
- Opportunity to participate in research projects or quality improvement initiatives related to endocrinology

Week 4:

- Presentation of cases or research projects to the endocrinology team
- Wrap-up and final discussions with the supervising endocrinologist
- Evaluation and feedback on the elective experience

Plastic Surgery

CONTACT: Elective Coordinator Phone: Cell: Email:

DESCRIPTION:

Location: Northwest General Hospital/Northwest Teaching Hospital Availability: During summer holidays Duration/Timing: 2-4 weeks/8:00am-4:00pm Approved by: Department Head Number of Students Accepted: 2-3/month Prerequisite(s): Year 3, 4, 5 of MBBS Faculty Drs: Elective Director: Contact: <u>electives.coordinator@ahl.pk</u>, +92 91 5860....

Overview

An elective in plastic surgery is an opportunity for medical students or residents to gain exposure to the surgical management of congenital and acquired deformities, as well as aesthetic surgery. Plastic surgery electives provide an opportunity to gain experience in reconstructive surgery, including breast reconstruction, trauma surgery, and microsurgery. The elective also involves participating in clinics, ward rounds, and surgical procedures.

Objectives:

- To gain exposure to the management of congenital and acquired deformities.
- To learn the principles of reconstructive surgery, including the use of tissue flaps and microsurgery
- To develop an understanding of the principles of aesthetic surgery

- To participate in clinics and ward rounds and gain experience in patient care.
- To gain hands-on experience by assisting in surgical procedures and observing surgeries

Schedule: A typical schedule for an elective in plastic surgery will include:

- Introduction to the service, including orientation to the clinic and hospital setting.
- Observation of plastic surgery procedures, including microsurgery, breast reconstruction, trauma surgery, and aesthetic surgery
- Participation in plastic surgery clinics, including outpatient follow-up and preoperative evaluation.
- Participation in ward rounds and inpatient care
- Opportunity to assist in surgical procedures under the guidance of a plastic surgeon.
- Attendance at conferences and meetings related to plastic surgery.
- Participation in research or quality improvement projects related to plastic surgery.

WEEKLY SCHEDULE

Week 1:

- Introduction to the service and orientation to the clinic and hospital setting.
- Observation of plastic surgery procedures, including microsurgery, breast reconstruction, and trauma surgery
- Introduction to the use of tissue flaps in reconstructive surgery
- Participation in plastic surgery clinics

Week 2:

- Observation of aesthetic surgery procedures, including facelifts, rhinoplasty, and liposuction
- Participation in preoperative evaluations for aesthetic surgery patients
- Participation in plastic surgery clinics
- Attendance at plastic surgery conferences and meetings

Week 3:

- Observation of plastic surgery procedures, including microsurgery, breast reconstruction, and trauma surgery
- Participation in clinics and ward rounds
- Introduction to the principles of wound healing and scar management
- Participation in research or quality improvement projects related to plastic surgery.

Week 4:

- Opportunity to assist in surgical procedures, including tissue flaps, microsurgery, and aesthetic surgery.
- Participation in clinics and ward rounds
- Attendance at plastic surgery conferences and meetings
- Completion of research or quality improvement projects

Rheumatology

CONTACT: Elective Coordinator Phone: Cell: Email:

DESCRIPTION:

Location: Northwest General Hospital/Northwest Teaching Hospital Availability: During summer holidays Duration/Timing: 2-4 weeks/8:00am-4:00pm Approved by: Department Head Number of Students Accepted: 2-3/month Prerequisite(s): Year 3, 4, 5 of MBBS Faculty Drs: Elective Director: Contact: <u>electives.coordinator@ahl.pk</u>, +92 91 5860....

Overview

An elective in Rheumatology is an opportunity for medical students or residents to gain exposure to the diagnosis and management of rheumatologic diseases. Rheumatology electives provide an opportunity to gain experience in the evaluation and treatment of a variety of conditions, including autoimmune diseases, osteoarthritis, and rheumatoid arthritis. The elective also involves participating in clinic, ward rounds, and case conferences.

Objectives:

- To learn the principles of diagnosing and treating rheumatologic diseases
- To develop an understanding of the various rheumatologic conditions and their presentation
- To participate in clinics and ward rounds and gain experience in patient care.
- To gain hands-on experience by assisting in the evaluation and management of patients with rheumatologic conditions
- To gain experience in interpreting radiographic and laboratory studies

Schedule:

A typical schedule for an elective in Rheumatology might include:

- Introduction to the service, including orientation to the clinic and hospital setting.
- Observation of patient evaluations and treatments for various rheumatologic conditions, such as rheumatoid arthritis, osteoarthritis, and lupus

- Participation in Rheumatology clinics, including outpatient follow-up and preoperative evaluation.
- Participation in ward rounds and inpatient care
- Opportunity to assist in patient evaluation and management under the guidance of a Rheumatologist.
- Attendance at conferences and meetings related to Rheumatology.
- Participation in research or quality improvement projects related to Rheumatology.

Pulmonology

CONTACT:
Elective Coordinator
Phone:
Cell:
Email:

DESCRIPTION:

Location: Northwest General Hospital/Northwest Teaching Hospital Availability: During summer holidays Duration/Timing: 2-4 weeks/8:00am-4:00pm Approved by: Department Head Number of Students Accepted: 2-3/month Prerequisite(s): Year 3, 4, 5 of MBBS Faculty Drs: Elective Director: Contact: electives.coordinator@ahl.pk , +92 91 5860....

Overview

An elective in Pulmonology is an opportunity for medical students or residents to gain exposure to the diagnosis and management of respiratory diseases. Pulmonology electives provide an opportunity to gain experience in the evaluation and treatment of a variety of conditions, including asthma, chronic obstructive pulmonary disease (COPD), lung cancer, pulmonary fibrosis, and other interstitial lung diseases. The elective also involves participating in clinics, ward rounds, and case conferences.

Objectives:

- To learn the principles of diagnosing and treating respiratory diseases
- To develop an understanding of the various respiratory conditions and their presentation
- To participate in clinics and ward rounds and gain experience in patient care.
- To gain hands-on experience by assisting in the evaluation and management of patients with respiratory diseases
- To gain experience in interpreting pulmonary function tests and imaging studies

WEEKLY SCHEDULE:

A typical schedule for an elective in Pulmonology might include:

- Introduction to the service, including orientation to the clinic and hospital setting.
- Observation of patient evaluations and treatments for various respiratory conditions, such as asthma, COPD, lung cancer, pulmonary fibrosis, and other interstitial lung diseases
- Participation in Pulmonology clinics, including outpatient follow-up and preoperative evaluation.
- Participation in ward rounds and inpatient care
- Opportunity to assist in patient evaluation and management under the guidance of a Pulmonologist.
- Attendance at conferences and meetings related to Pulmonology.
- Participation in research or quality improvement projects related to Pulmonology.

Week 1:

- Introduction to Pulmonology service and team
- Patient evaluations for common respiratory conditions such as asthma, COPD, and pneumonia
- Attendance in Pulmonology outpatient clinics

Week 2:

- Inpatient care: Attend ward rounds and participate in the management of inpatients with respiratory conditions.
- Interpretation of pulmonary function tests and chest imaging
- Participation in case conferences

Week 3:

- Experience in interventional procedures such as thoracentesis, bronchoscopy, and pleural biopsy
- Attendance at multidisciplinary meetings and conferences
- Observing the management of critically ill patients with respiratory failure in the ICU
- Participation in respiratory therapy and rehabilitation programs

Week 4:

- Finalizing research and Quality Improvement projects
- Review of cases seen and creation of a summary report
- Presentations to Pulmonology team.
- Reflection and assessment of the 4 weeks elective

Nuclear Medicine

CONTACT: Elective Coordinator Phone: Cell: Email:

DESCRIPTION:

Location: Northwest General Hospital/Northwest Teaching Hospital Availability: During summer holidays Duration/Timing: 2-4 weeks/8:00am-4:00pm Approved by: Department Head Number of Students Accepted: 2-3/month Prerequisite(s): Year 3, 4, 5 of MBBS Faculty Drs: Elective Director: Contact: <u>electives.coordinator@ahl.pk</u> , +92 91 5860....

Overview

Nuclear Medicine is a medical specialty that uses radioactive materials to diagnose and treat various diseases. An elective in Nuclear Medicine is typically offered to medical students in their final years of study or to residents in training. The elective usually lasts between 2 to 4 weeks, but the duration may vary depending on the students' interest in the specialty.

- During the elective, students will learn about the principles and practices of Nuclear Medicine, including radiopharmaceuticals, radiation safety, and imaging techniques.
- Students may have the opportunity to observe and participate in procedures such as PET scans, SPECT scans, and gamma camera imaging.
- Students may also learn about the clinical applications of Nuclear Medicine, including the diagnosis and treatment of various cancers, thyroid diseases, and bone disorders.
- The elective may include lectures, case studies, and hands-on training in the use of equipment and procedures.
- It is recommended that students have a basic understanding of anatomy, physiology, and medical terminology before taking an elective in Nuclear Medicine.

WEEKLY SCHEDULE

Week 1:

- Introduction to Nuclear Medicine, department and staff
- Principles of radiation safety
- Radiopharmaceuticals and their uses
- Imaging techniques: PET, SPECT, gamma camera
- Case studies and interpretation of images

Week 2:

• Clinical applications of Nuclear Medicine: cancer diagnosis and treatment, thyroid diseases, bone disorders

- Hands-on training in the use of equipment and procedures
- Observation and participation in procedures
- Wrap-up and review of key concepts

Topics Covered: The elective may cover the following topics:

- Principles of nuclear medicine imaging
- Radiopharmaceuticals
- Nuclear medicine imaging techniques (SPECT, PET, planar imaging)
- Clinical applications of nuclear medicine (cancer, cardiovascular disease, neurological disorders, endocrine disorders)
- Radiation safety
- Nuclear medicine therapy
- Quality control

Target Audience:

The elective is typically aimed at healthcare professionals, and medical students

Benefits:

- Gain knowledge of the principles and techniques of nuclear medicine imaging and therapy
- Learn about the clinical applications of nuclear medicine in the diagnosis and management of various diseases.
- Obtain hands-on experience in using imaging equipment and radiopharmaceuticals.
- Understand the principles of radiation safety and quality control in nuclear medicine.

Career Pathways:

- Nuclear medicine physician
- Nuclear medicine physicist
- Radiopharmaceutical scientist

Conclusion: An elective in Nuclear Medicine is a valuable course for healthcare professionals and students who are interested in pursuing a career in nuclear medicine. It provides an in-depth understanding of the principles and clinical applications of nuclear medicine imaging and therapy and allows students to obtain practical experience in this rapidly advancing field of medical imaging and therapy.

Laboratory Medicine

CONTACT:
Elective Coordinator
Phone:
Cell:
Email:

DESCRIPTION:

Location: Northwest General Hospital/Northwest Teaching Hospital Availability: During summer holidays Duration/Timing: 2-4 weeks/8:00am-4:00pm Approved by: Department Head Number of Students Accepted: 2-3/month Prerequisite(s): Year 3, 4, 5 of MBBS Faculty Drs: Elective Director: Contact: <u>electives.coordinator@ahl.pk</u>, +92 91 5860....

Overview

An elective in Laboratory Medicine is a specialized course offered in the medical or healthcare field that focuses on laboratory testing and analysis of patient samples. It covers the principles, techniques, and applications of laboratory testing in the diagnosis, monitoring, and management of various diseases.

Topics Covered: The elective may cover the following topics:

- Principles of laboratory testing and analysis
- Basic laboratory techniques (microscopy, spectrophotometry, chromatography, electrophoresis)
- Clinical chemistry (biochemical markers, enzyme assays, immunoassays)
- Hematology (complete blood count, coagulation tests)
- Microbiology (culture and sensitivity testing, molecular diagnostics)
- Transfusion medicine (blood typing, crossmatching, transfusion reactions)
- Quality control and laboratory accreditation

Format: The elective may be offered in various formats such as online or in-person lectures, laboratory sessions, and clinical attachments. The practical sessions may provide hands-on experience in performing laboratory tests and analyzing patient samples.

Target Audience: The elective is typically aimed at medical students, residents, and laboratory professionals who want to gain a deeper understanding of laboratory testing and analysis.

Benefits:

- Gain knowledge of the principles and techniques of laboratory testing and analysis
- Learn about the clinical applications of laboratory testing in the diagnosis, monitoring, and management of various diseases.
- Obtain hands-on experience in performing laboratory tests and analyzing patient samples.
- Understand the principles of quality control and laboratory accreditation.

Week 1:

Day 1: Introduction to the laboratory and orientation

- Tour of the laboratory facilities
- Meet with laboratory staff and supervisors.
- Review laboratory policies and procedures

Day 2-4: Hematology and Coagulation

- Observe and learn about hematology and coagulation tests
- Review the interpretation of test results
- Participate in laboratory quality control and assurance procedures

Day 5: Microbiology

- Observe and learn about microbiology tests, including specimen collection and processing
- Review the interpretation of test results
- Participate in laboratory quality control and assurance procedures

Week 2:

Day 1-3: Chemistry

- Observe and learn about chemistry tests, including specimen collection and processing
- Review the interpretation of test results
- Participate in laboratory quality control and assurance procedures

Day 4-5: Blood Bank

- Observe and learn about blood bank testing, including ABO blood typing and cross-matching
- Review the interpretation of test results
- Participate in laboratory quality control and assurance procedures

Week 3:

Day 1-3: Molecular Diagnostics

- Observe and learn about molecular diagnostic tests, including polymerase chain reaction (PCR)
- Review the interpretation of test results.
- Participate in laboratory quality control and assurance procedures.

Day 4-5: Histology

- Observe and learn about histology techniques, including tissue processing and staining.
- Review the interpretation of test results.
- Participate in laboratory quality control and assurance procedures.

Week 4:

Day 1-2: Cytology

- Observe and learn about cytology techniques, including specimen collection and processing.
- Review the interpretation of test results.
- Participate in laboratory quality control and assurance procedures.

Day 3-4: Point-of-Care Testing

- Observe and learn about point-of-care testing, including glucometer and rapid strep testing.
- Review the interpretation of test results.
- Participate in laboratory quality control and assurance procedures.

Day 5: Wrap-up and Conclusion

- Review the overall experience and learning outcomes.
- Provide feedback to laboratory staff and supervisors.
- Discuss future career opportunities in laboratory medicine.

Career Pathways:

- Clinical laboratory scientist
- Pathologist
- Hematologist
- Microbiologist
- Clinical chemist

Conclusion: An elective in Laboratory Medicine is a valuable course for medical students and laboratory professionals who want to gain a deeper understanding of laboratory testing and analysis. It provides an in-depth understanding of the principles and clinical applications of laboratory testing and allows students to obtain practical experience in this rapidly advancing field of laboratory medicine.

Nephrology

CONTACT: Elective Coordinator Phone: Cell: Email:

DESCRIPTION:

Location: Northwest General Hospital/Northwest Teaching Hospital **Availability:** During summer holidays

Duration/Timing: 2-4 weeks/8:00am-4:00pm Approved by: Department Head Number of Students Accepted: 2-3/month Prerequisite(s): Year 3, 4, 5 of MBBS Faculty Drs: Elective Director: Contact: <u>electives.coordinator@ahl.pk</u> , +92 91 5860....

Overview

An elective in Nephrology is a specialized course offered in the medical or healthcare field that focuses on the diagnosis, management, and treatment of kidney diseases. It covers the principles, techniques, and clinical applications of nephrology, including the use of dialysis and kidney transplantation.

Topics Covered: The elective may cover the following topics:

- Anatomy and physiology of the kidney
- Clinical evaluation of kidney function (urinalysis, blood tests, imaging)
- Common kidney diseases (glomerulonephritis, diabetic nephropathy, chronic kidney disease)
- Acute kidney injury
- Dialysis (hemodialysis, peritoneal dialysis)
- Kidney transplantation
- Management of complications in kidney disease (hypertension, anemia, bone disease)
- Palliative care in end-stage kidney disease

Format: The elective may be offered in various formats such as online or in-person lectures, case presentations, and clinical attachments. The practical sessions may provide hands-on experience in the evaluation of kidney function, the use of dialysis, and the management of kidney disease complications.

Target Audience: The elective is typically aimed at medical students, residents, and healthcare professionals who want to gain a deeper understanding of nephrology.

Benefits:

- Gain knowledge of the principles and techniques of nephrology
- Learn about the clinical applications of nephrology in the diagnosis, management, and treatment of kidney diseases.
- Obtain hands-on experience in the evaluation of kidney function, the use of dialysis, and the management of kidney disease complications.
- Understand the principles of palliative care in end-stage kidney disease.

WEEKLY SCHEDULE

Week 1:

Day 1: Introduction to Nephrology

- Meet with the supervising physician and other staff members.
- Review the basics of nephrology and its scope of practice.
- Discuss the objectives and goals of the elective.

Day 2-3: Renal Physiology and Anatomy

- Learn about the anatomy and physiology of the kidneys.
- Review the normal renal function and the mechanisms of excretion.
- Understand the mechanisms of electrolyte and acid-base balance.

Day 4-5: Glomerular Disease

- Learn about glomerular disease, including glomerulonephritis and nephrotic syndrome.
- Review the diagnostic tests for glomerular disease.
- Participate in the management of patients with glomerular disease.

Week 2:

Day 1-2: Acute Kidney Injury

- Learn about acute kidney injury, including its causes and symptoms.
- Review the diagnostic tests for acute kidney injury.
- Participate in the management of patients with acute kidney injury.

Day 3-4: Chronic Kidney Disease

- Learn about chronic kidney disease, including its causes and symptoms.
- Review the diagnostic tests for chronic kidney disease.
- Participate in the management of patients with chronic kidney disease.

Day 5: Dialysis

- Learn about the different types of dialysis, including hemodialysis and peritoneal dialysis.
- Review the indications for dialysis and its complications.
- Participate in the management of patients on dialysis.

Week 3:

Day 1-2: Hypertension and Nephropathy

- Learn about the relationship between hypertension and nephropathy.
- Review the diagnostic tests for hypertension and nephropathy.
- Participate in the management of patients with hypertension and nephropathy.

Day 3-4: Transplantation

- Learn about kidney transplantation, including the evaluation process and the post-transplant management.
- Review the indications and contraindications for transplantation.
- Participate in the management of patients with kidney transplantation.

Day 5: Laboratory and Diagnostic Tests

- Learn about the different laboratory and diagnostic tests used in nephrology.
- Review the indications and interpretations of these tests.
- Participate in the ordering and interpretation of these tests.

Week 4:

Day 1-2: Research and Journal Club

- Participate in research activities and journal club discussions.
- Learn about current research in nephrology and its implications for patient care.

Day 3-4: Case Presentations and Discussions

- Participate in case presentations and discussions.
- Review patient cases and discuss the diagnosis and management of different nephrology-related conditions.

Day 5: Wrap-up and Conclusion

- Review the overall experience and learning outcomes.
- Provide feedback to the supervising physician and other staff members.
- Discuss future career opportunities in nephrology.
- Reflection and assessment of the 4 week elective

Career Pathways:

- Nephrologist
- Transplant surgeon
- Clinical researcher in nephrology

Conclusion: An elective in Nephrology is a valuable course for medical students and healthcare professionals who want to gain a deeper understanding of kidney diseases and their management. It provides an in-depth understanding of the principles and clinical applications of nephrology and allows students to obtain practical experience in this rapidly advancing field of medicine.

Pediatric Surgery

CONTACT: Elective Coordinator

Phone: Cell: Email:

DESCRIPTION:

Location: Northwest General Hospital/Northwest Teaching Hospital Availability: During summer holidays Duration/Timing: 2-4 weeks/8:00am-4:00pm Approved by: Department Head Number of Students Accepted: 2-3/month Prerequisite(s): Year 3, 4, 5 of MBBS Faculty Drs: Elective Director: Contact: <u>electives.coordinator@ahl.pk</u>, +92 91 5860....

Overview

An elective in Paediatric Surgery is a specialized course offered in the medical field that focuses on the diagnosis, management, and treatment of surgical conditions in children. It covers the principles, techniques, and clinical applications of paediatric surgery, including the management of various congenital and acquired surgical conditions.

Topics Covered: The elective may cover the following topics:

- Anatomy and physiology of neonates and children
- Preoperative assessment and preparation of paediatric patients
- Principles of paediatric anaesthesia
- Common paediatric surgical conditions (e.g. congenital anomalies, tumours, abdominal conditions, urological conditions)
- Surgical management of paediatric conditions (e.g. laparoscopic surgery, open surgery)
- Postoperative care of paediatric patients
- Long-term management and follow-up of paediatric surgical conditions

Format: The elective may be offered in various formats such as online or in-person lectures, case presentations, and clinical attachments. The practical sessions may provide hands-on experience in the evaluation, management, and treatment of paediatric surgical conditions.

Target Audience: The elective is typically aimed at medical students, residents, and healthcare professionals who want to gain a deeper understanding of paediatric surgery.

Benefits:

- Gain knowledge of the principles and techniques of paediatric surgery
- Learn about the clinical applications of paediatric surgery in the diagnosis, management, and treatment of surgical conditions in children.

- Obtain hands-on experience in the evaluation, management, and treatment of paediatric surgical conditions
- Understand the principles of postoperative care and long-term management of paediatric surgical conditions

WEEKLY SCHEDULE

Week 1:

Day 1: Introduction to Pediatric Surgery

- Meet with the supervising surgeon and other staff members
- Review the basics of pediatric surgery and its scope of practice
- Discuss the objectives and goals of the elective

Day 2-3: Neonatal Surgery

- Learn about the common neonatal surgical procedures, such as esophageal atresia, diaphragmatic hernia, and congenital abdominal wall defects
- Observe and participate in the management of neonatal surgical cases

Day 4-5: Pediatric Urology

- Learn about the common pediatric urological conditions, such as hypospadias, undescended testes, and vesicoureteral reflux
- Observe and participate in the management of pediatric urological cases

Week 2:

Day 1-2: Pediatric Gastrointestinal Surgery

- Learn about the common pediatric gastrointestinal conditions, such as appendicitis, pyloric stenosis, and malrotation
- Observe and participate in the management of pediatric gastrointestinal cases

Day 3-4: Pediatric Trauma

- Learn about the unique aspects of pediatric trauma management, including assessment and stabilization of the critically injured child
- Participate in the management of pediatric trauma cases

Day 5: Pediatric Oncology

- Learn about the common pediatric oncologic conditions, such as neuroblastoma, Wilms tumor, and hepatoblastoma
- Observe and participate in the management of pediatric oncologic cases

Week 3:

Day 1-2: Pediatric Orthopedic Surgery

- Learn about the common pediatric orthopedic conditions, such as scoliosis, developmental dysplasia of the hip, and clubfoot
- Observe and participate in the management of pediatric orthopedic cases

Day 3-4: Pediatric Cardiac Surgery

- Learn about the common congenital cardiac conditions requiring surgery, such as tetralogy of Fallot, ventricular septal defect, and atrial septal defect
- Observe and participate in the management of pediatric cardiac cases

Day 5: Pediatric Plastic and Reconstructive Surgery

- Learn about the common pediatric plastic and reconstructive procedures, such as cleft lip and palate repair, craniosynostosis, and burns.
- Observe and participate in the management of pediatric plastic and reconstructive cases.

Week 4:

Day 1-2: Pediatric Anesthesia

- Learn about the unique aspects of pediatric anesthesia management.
- Observe and participate in pediatric anesthesia cases.

Day 3-4: Research and Journal Club

- Participate in research activities and journal club discussions.
- Learn about current research in pediatric surgery and its implications for patient care.

Day 5: Wrap-up and Conclusion

- Review the overall experience and learning outcomes.
- Provide feedback to the supervising surgeon and other staff members.
- Discuss future career opportunities in pediatric surgery.
- Reflection and assessment of the 4-week elective in pediatric surgery

Career Pathways:

- Paediatric surgeon
- Paediatric anaesthesiologist
- Clinical researcher in paediatric surgery

Conclusion: An elective in Paediatric Surgery is a valuable course for medical students and healthcare professionals who want to gain a deeper understanding of surgical conditions in children and their management. It provides an in-depth understanding of the principles and clinical applications of paediatric surgery and allows students to obtain practical experience in this rapidly advancing field of medicine.

Gastroenterology

CONTACT: Elective Coordinator Phone: Cell: Email:

DESCRIPTION:

Location: Northwest General Hospital/Northwest Teaching Hospital Availability: During summer holidays Duration/Timing: 2-4 weeks/8:00am-4:00pm Approved by: Department Head Number of Students Accepted: 2-3/month. Prerequisite(s): Year 3, 4, 5 of MBBS Faculty Drs: Elective Director: Contact: electives.coordinator@ahl.pk , +92 91 5860....

Overview

An elective in Gastroenterology is a specialized course offered in the medical or healthcare field that focuses on the diagnosis, management, and treatment of digestive system disorders. It covers the principles, techniques, and clinical applications of gastroenterology, including the use of endoscopy and imaging techniques.

Topics Covered: The elective will cover the following topics:

- Anatomy and physiology of the gastrointestinal tract
- Clinical evaluation of gastrointestinal symptoms (e.g. abdominal pain, bloating, nausea, vomiting, diarrhea)
- Common gastrointestinal disorders (e.g. irritable bowel syndrome, gastroesophageal reflux disease, inflammatory bowel disease)
- Gastrointestinal bleeding
- Endoscopy techniques (e.g. upper and lower gastrointestinal endoscopy, endoscopic retrograde cholangiopancreatography)
- Imaging techniques (e.g. ultrasound, computed tomography, magnetic resonance imaging)

- Management of complications in gastrointestinal disorders (e.g. malabsorption, nutritional deficiencies, liver disease)
- Principles of palliative care in advanced gastrointestinal disorders

Format: The elective may be offered in various formats such as online or in-person lectures, case presentations, and clinical attachments. The practical sessions may provide hands-on experience in endoscopy and imaging techniques, as well as in the management of gastrointestinal disorders.

Target Audience: The elective is typically aimed at medical students, residents, and healthcare professionals who want to gain a deeper understanding of gastroenterology.

Benefits:

- Gain knowledge of the principles and techniques of gastroenterology
- Learn about the clinical applications of gastroenterology in the diagnosis, management, and treatment of digestive system disorders
- Obtain hands-on experience in endoscopy and imaging techniques, as well as in the management of gastrointestinal disorders
- Understand the principles of palliative care in advanced gastrointestinal disorders

WEEKLY SCHEDULE

Week 1:

Day 1: Introduction to Gastroenterology

- Meet with the supervising physician and other staff members
- Review the basics of gastroenterology and its scope of practice
- Discuss the objectives and goals of the elective

Day 2-3: Endoscopy

- Learn about the different types of endoscopy procedures, such as upper endoscopy, colonoscopy, and endoscopic ultrasound
- Observe and participate in endoscopy procedures

Day 4-5: Gastrointestinal Motility Disorders

- Learn about the common gastrointestinal motility disorders, such as gastroparesis, irritable bowel syndrome, and achalasia
- Observe and participate in the management of patients with motility disorders

Week 2:

Day 1-2: Inflammatory Bowel Disease

- Learn about the common inflammatory bowel diseases, such as Crohn's disease and ulcerative colitis
- Observe and participate in the management of patients with inflammatory bowel disease

Day 3-4: Liver Disease

- Learn about the common liver diseases, such as hepatitis, cirrhosis, and liver cancer
- Observe and participate in the management of patients with liver disease

Day 5: Nutrition Support

- Learn about the nutritional needs of patients with gastrointestinal diseases
- Observe and participate in the management of patients requiring nutrition support, such as those with short bowel syndrome or malabsorption

Week 3:

Day 1-2: Pancreatic Diseases

- Learn about the common pancreatic diseases, such as acute and chronic pancreatitis, pancreatic cysts, and pancreatic cancer
- Observe and participate in the management of patients with pancreatic diseases

Day 3-4: Gastrointestinal Bleeding

- Learn about the evaluation and management of gastrointestinal bleeding
- Observe and participate in the management of patients with gastrointestinal bleeding

Day 5: Small Bowel Diseases

- Learn about the common small bowel diseases, such as celiac disease, small bowel obstruction, and small bowel tumors
- Observe and participate in the management of patients with small bowel diseases

Week 4:

Day 1-2: Infection Control in Gastroenterology

- Learn about the infection control measures in gastroenterology, such as hand hygiene, personal protective equipment, and disinfection of endoscopes
- Participate in infection control practices

Day 3-4: Research and Journal Club

- Participate in research activities and journal club discussions
- Learn about current research in gastroenterology and its implications for patient care

Day 5: Wrap-up and Conclusion

- Review the overall experience and learning outcomes
- Provide feedback to the supervising physician and other staff members
- Discuss future career opportunities in gastroenterology

Career Pathways:

- Gastroenterologist
- Endoscopist
- Hepatologist
- Clinical researcher in gastroenterology

Conclusion: An elective in Gastroenterology is a valuable course for medical students and healthcare professionals who want to gain a deeper understanding of digestive system disorders and their management. It provides an in-depth understanding of the principles and clinical applications of gastroenterology and allows students to obtain practical experience in this rapidly advancing field of medicine.

Medical Intensive Care Unit (MICU)

CONTACT:
Elective Coordinator
Phone:
Cell:
Email:

DESCRIPTION:

Location: Northwest General Hospital/Northwest Teaching Hospital Availability: During summer holidays Duration/Timing: 2-4 weeks/8:00am-4:00pm Approved by: Department Head Number of Students Accepted: 2-3/month

Prerequisite(s): Year 3, 4, 5 of MBBS Faculty Drs: Elective Director: Contact: electives.coordinator@ahl.pk , +92 91 5860....

Overview

An elective in Intensive Care Unit (ICU) is a specialized course offered in the medical or healthcare field that focuses on the principles, management, and treatment of critically ill patients. It covers the use of advanced life support techniques, monitoring equipment, and medications used in the ICU.

Topics Covered: The elective may cover the following topics:

- Principles of critical care medicine
- Advanced life support techniques (e.g. mechanical ventilation, extracorporeal membrane oxygenation)
- Cardiovascular and respiratory physiology
- Use of monitoring equipment in ICU (e.g. arterial lines, central venous catheters, pulmonary artery catheters)
- Management of sepsis and septic shock
- Nutritional support in critically ill patients
- Medications commonly used in ICU (e.g. vasopressors, sedatives, antibiotics)
- Ethical considerations in ICU care

Format: The elective may be offered in various formats such as online or in-person lectures, case presentations, and clinical attachments. The practical sessions may provide hands-on experience in the use of monitoring equipment and advanced life support techniques.

Target Audience: The elective is typically aimed at medical students, residents, and healthcare professionals who want to gain a deeper understanding of critical care medicine.

Benefits:

- Gain knowledge of the principles and techniques of critical care medicine
- Learn about the clinical applications of ICU care in the management of critically ill patients
- Obtain hands-on experience in the use of monitoring equipment and advanced life support techniques
- Understand the principles of ethical considerations in ICU care

WEEKLY SCHEDULE

Week 1:

Day 1: Introduction to Medical ICU

- Meet with the supervising physician and other staff members
- Review the basics of Medical ICU and its scope of practice
- Discuss the objectives and goals of the elective

Day 2-3: Respiratory Distress Syndrome

- Learn about the common causes of respiratory distress syndrome
- Observe and participate in the management of patients with respiratory distress syndrome

Day 4-5: Shock

- Learn about the different types of shock, such as septic, hypovolemic, and cardiogenic shock
- Observe and participate in the management of patients with shock

Week 2:

Day 1-2: Acute Renal Failure

- Learn about the common causes of acute renal failure
- Observe and participate in the management of patients with acute renal failure

Day 3-4: Neurological Emergencies

- Learn about the common neurological emergencies, such as intracranial hemorrhage, status epilepticus, and Guillain-Barré syndrome
- Observe and participate in the management of patients with neurological emergencies

Day 5: Cardiac Arrest

- Learn about the management of cardiac arrest in the ICU
- Participate in cardiac arrest simulations

Week 3:

Day 1-2: Sepsis

- Learn about the diagnosis and management of sepsis
- Observe and participate in the management of patients with sepsis

Day 3-4: Gastrointestinal Bleeding

- Learn about the evaluation and management of gastrointestinal bleeding in the ICU
- Observe and participate in the management of patients with gastrointestinal bleeding

Day 5: Ethics in the ICU

- Learn about ethical dilemmas commonly encountered in the ICU
- Discuss case scenarios and participate in ethical decision-making exercises

Week 4:

Day 1-2: Mechanical Ventilation

- Learn about the different modes of mechanical ventilation
- Observe and participate in the management of patients on mechanical ventilation

Day 3-4: ICU Research and Journal Club

- Participate in research activities and journal club discussions
- Learn about current research in Medical ICU and its implications for patient care

Day 5: Wrap-up and Conclusion

- Review the overall experience and learning outcomes
- Provide feedback to the supervising physician and other staff members
- Discuss future career opportunities in Medical ICU.

Career Pathways:

- Critical care physician
- Clinical researcher in critical care medicine

Conclusion: An elective in Intensive Care Unit is a valuable course for medical students and healthcare professionals who want to gain a deeper understanding of critical care medicine and the management of critically ill patients. It provides an in-depth understanding of the principles and clinical applications of ICU care and allows students to obtain practical experience in this rapidly advancing field of medicine.

Surgical Intensive Care Unit (SICU)

CONTACT: Elective Coordinator Phone: Cell: Email:

DESCRIPTION:

Location: Northwest General Hospital/Northwest Teaching Hospital Availability: During summer holidays Duration/Timing: 2-4 weeks/8:00am-4:00pm Approved by: Department Head Number of Students Accepted: 2-3/month Prerequisite(s): Year 3, 4, 5 of MBBS Faculty Drs: Elective Director: Contact: electives.coordinator@ahl.pk , +92 91 5860....

Overview

- A surgical intensive care unit (SICU) is a specialized unit in NWGH that provides care for critically ill surgical patients, such as those who have undergone major surgeries or have experienced traumatic injuries.
- During this elective, students will have the opportunity to work closely with healthcare professionals, including attending physicians, resident physicians, and nurses, to care for patients in the SICU.
- Students will learn about the management of complex medical conditions, including sepsis, acute respiratory distress syndrome (ARDS), and postoperative complications.
- They will also learn about the use of medical devices, such as mechanical ventilators and central lines, as well as the interpretation of laboratory and diagnostic tests.
- In addition to patient care, students will have the opportunity to participate in educational conferences and rounds, where they can discuss patient cases and learn about new medical research.

WEEKLY SCHEDULE

Week 1:

Day 1: Introduction to Surgical ICU

- Meet with the supervising physician and other staff members
- Review the basics of Surgical ICU and its scope of practice
- Discuss the objectives and goals of the elective

Day 2-3: Postoperative Care

• Learn about the management of postoperative complications, such as bleeding, infections, and wound healing problems

• Observe and participate in the management of patients in the immediate postoperative period

Day 4-5: Trauma

- Learn about the evaluation and management of trauma patients in the ICU
- Observe and participate in the management of trauma patients

Week 2:

Day 1-2: Mechanical Ventilation

- Learn about the different modes of mechanical ventilation and their indications and complications
- Observe and participate in the management of patients on mechanical ventilation

Day 3-4: Fluid and Electrolyte Management

- Learn about the principles of fluid and electrolyte management in the ICU
- Observe and participate in the management of patients with fluid and electrolyte disturbances

Day 5: Cardiac Surgery

- Learn about the management of patients undergoing cardiac surgery
- Observe and participate in the management of patients after cardiac surgery

Week 3:

Day 1-2: Renal Failure

- Learn about the causes and management of acute and chronic renal failure in the ICU
- Observe and participate in the management of patients with renal failure

Day 3-4: Sepsis

- Learn about the diagnosis and management of sepsis
- Observe and participate in the management of patients with sepsis

Day 5: Neurological Emergencies

- Learn about the common neurological emergencies, such as intracranial hemorrhage, status epilepticus, and Guillain-Barré syndrome
- Observe and participate in the management of patients with neurological emergencies

Week 4:

Day 1-2: Gastrointestinal Surgery

- Learn about the evaluation and management of gastrointestinal surgery patients in the ICU
- Observe and participate in the management of patients after gastrointestinal surgery

Day 3-4: ICU Research and Journal Club

- Participate in research activities and journal club discussions
- Learn about current research in Surgical ICU and its implications for patient care

Day 5: Wrap-up and Conclusion

- Review the overall experience and learning outcomes
- Provide feedback to the supervising physician and other staff members
- Discuss future career opportunities in Surgical ICU.

EVALUATION OF THE ELECTIVE PROGRAM OF ALLIANCE HEALTHCARE

Section 1: Student Feedback

- 1. Did you find the elective course(s) useful for your professional development?
 - a. Yes, extremely useful
 - b. Yes, somewhat useful
 - c. No, not very useful
 - d. No, not at all useful
- 2. How satisfied were you with the organization and planning of the elective course(s)?
 - a. Very satisfied
 - b. Somewhat satisfied
 - c. Neither satisfied nor dissatisfied.
 - d. Somewhat dissatisfied
 - e. Very dissatisfied
- 3. How effective were the elective course(s) in helping you achieve your learning goals?
 - a. Extremely effective
 - b. Very effective
 - c. Somewhat effective

- d. Not very effective
- e. Not at all effective
- 4. Did the elective course(s) meet your expectations?
 - a. Yes, exceeded expectations.
 - b. Yes, met expectations.
 - c. No, fell short of expectations.
- 5. What specific skills or knowledge did you gain from the elective course(s)?
- 6. How would you rate the overall quality of the elective course(s)?
 - a. Excellent
 - b. Good
 - c. Fair
 - d. Poor
 - e. Very poor
- 7. What suggestions do you have for improving the elective course(s)?

Section 2: Faculty Feedback

- 1. How well did the elective course(s) align with the learning objectives of the medical program?
 - a. Extremely well
 - b. Very well
 - c. Somewhat well
 - d. Not very well
 - e. Not at all well
- 2. How satisfied were you with the level of student engagement and participation in the elective course(s)?
 - a. Very satisfied
 - b. Somewhat satisfied
 - c. Neither satisfied nor dissatisfied
 - d. Somewhat dissatisfied
 - e. Very dissatisfied
- 3. How effective were the teaching methods used in the elective course(s)?
 - a. Extremely effective
 - b. Very effective

- c. Somewhat effective
- d. Not very effective
- e. Not at all effective
- 4. What suggestions do you have for improving the elective course(s)?

Section 3: Curriculum Analysis

- 1. To what extent do the elective courses align with the latest medical practices and guidelines?
 - a. Completely
 - b. Mostly
 - c. Somewhat
 - d. Not very much
 - e. Not at all
- 2. Are there any gaps or areas of improvement in the elective courses?
 - a. Yes
 - b. No
- 3. If yes, please specify the gaps or areas of improvement.
- 4. How well do the elective courses complement the core curriculum of the medical program?
 - a. Extremely well
 - b. Very well
 - c. Somewhat well
 - d. Not very well
 - e. Not at all well
- 5. What changes or improvements would you suggest for the elective courses?