ALLIANCE HEALTHCARE (PVT) LTD.

Medical Student Elective Guide

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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 PROGRAM 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

i. Completed Application Form
ii. CV
iii. Statement of Interest
iv. Two letters of references
v. Confidentiality Agreement (See appendix)

3. FORMS

i. Student Daily Elective Activities Log (See appendix)
ii. Final Assessment Report Form (See appendix)
iii. Evaluation of Elective Program (See appendix)

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 **Electives Officer**, who will review and approve them on a case-by-case basis.

The attendance policy will be clearly communicated to all students at the beginning of the elective clinical rotation, and that any changes or updates to the policy will be communicated promptly to all students.

SPECIALTY SELECTION GUIDE

Anesthesia

CONTACT:
Electives Officer
Email: electives.officer@nwgh.pk

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: 3/rotation
Prerequisite(s): Year 3, 4, 5 of MBBS
Faculty/Consultants: Prof. Akbar Said Jan, Prof. Nighat Aziz, Dr. Hayat
Elective Director: Senior Registrar

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:

- 4 weeks
- Timings: 8:00am – 4:00pm

WEEKLY SCHEDULE:

Week 1:

Day 1:

- Introduction and orientation to the department and staff
- Introduction to Anesthesia: Brief history, types of anesthesia, and their application.
- Operating Room (OR) Tour: Introduction to equipment, staff, and OR protocols.

Day 2:

- Basic Physiology: Understanding the physiological changes during anesthesia and the principles of monitoring.
- Introduction to Airway Management: Discussing airway anatomy and techniques of intubation and ventilation.

Day 3:

- Pharmacology: Introduction to anesthetic agents, their mechanism of action, and side effects.
- Regional Anesthesia: Introduction to regional anesthesia, techniques, and indications.

Day 4:

- Anesthesia for Surgery: Understanding the anesthetic management for various surgical procedures.
- Case Discussion: Reviewing case studies and understanding the anesthetic management plan.

Day 5:

- Anesthesia Emergencies: Introduction to the common emergencies in anesthesia and their management.

End of Week 1:

- Reflection: At the end of the week, students will write a short reflection on their understanding of the basic principles of anesthesia and their experience in the OR tour.
- Assessment: Students will take a quiz at the end of the week to test their knowledge of the basic principles of anesthesia and the OR protocols.

Week 2:

Day 1:

- Anesthetic Techniques: Introduction to general anesthesia techniques, induction, maintenance, and emergence.
- Anesthesia for Special Population: Understanding the anesthetic management of special populations, such as pediatrics, geriatrics, and pregnant patients.

Day 2:

- Anesthetic Monitoring: Introduction to various monitoring techniques, including electrocardiogram (ECG), arterial blood gas (ABG), and pulse oximetry.

- Pain Management: Introduction to various pain management techniques, including patient-controlled analgesia (PCA), epidural, and nerve blocks.

Day 3:

- Anesthetic Complications: Understanding the common complications of anesthesia and their management.
- Anesthesia for Trauma: Introduction to the anesthetic management of patients with trauma.

Day 4:

- Anesthesia for Outpatient Surgery: Understanding the anesthetic management of patients undergoing outpatient surgery.
- Case Discussion: Reviewing case studies and understanding the anesthetic management plan.

Day 5:

- Anesthesia for Neurosurgery: Introduction to the anesthetic management of patients undergoing neurosurgery.

End of Week 2:

- Reflection: At the end of the week, students will write a short reflection on their understanding of anesthetic techniques, monitoring, and pain management techniques.
- Assessment: Students will take a quiz at the end of the week to test their knowledge of anesthetic techniques, monitoring, and pain management

Week 3:

Day 1:

- Anesthesia for Cardiovascular Surgery: Understanding the anesthetic management of patients undergoing cardiovascular surgery.
- Anesthesia for Thoracic Surgery: Introduction to the anesthetic management of patients undergoing thoracic surgery.

Day 2:

- Anesthesia for Transplant Surgery: Understanding the anesthetic management of patients undergoing transplant surgery.
- Anesthesia for Bariatric Surgery: Introduction to the anesthetic management of patients undergoing bariatric surgery.

Day 3:

- Anesthesia for Ophthalmic Surgery: Understanding the anesthetic management of patients undergoing ophthalmic surgery.
- Anesthesia for Ear, Nose, and Throat (ENT) Surgery: Introduction to the anesthetic management of patients undergoing ENT surgery.

Day 4:

- Anesthesia for Urology Surgery: Understanding the anesthetic management of patients undergoing urology surgery.
- Case Discussion: Reviewing case studies and understanding the anesthetic management plan.

Day 5:

- Anesthesia for Orthopedic Surgery: Introduction to the anesthetic management of patients undergoing orthopedic surgery.

End of Week 3:

- Reflection: At the end of the week, students will write a short reflection on their understanding of the anesthetic management of various surgical procedures and special populations.
- Assessment: Students will take a quiz at the end of the week to test their knowledge of the anesthetic management of various surgical procedures and special populations

Week 4:

Day 1:

- Anesthesia for Plastic Surgery: Understanding the anesthetic management of patients undergoing plastic surgery.
- Anesthesia for Obstetric Surgery: Introduction to the anesthetic management of patients undergoing obstetric surgery.

Day 2:

- Anesthesia for Gastrointestinal Surgery: Understanding the anesthetic management of patients undergoing gastrointestinal surgery.
- Anesthesia for Oncology Surgery: Introduction to the anesthetic management of patients undergoing oncology surgery.

Day 3:

- Anesthesia for Emergency Surgery: Understanding the anesthetic management of patients undergoing emergency surgery.
- Anesthesia for Robotic Surgery: Introduction to the anesthetic management of patients undergoing robotic surgery.

Day 4:

- Anesthesia for Pediatric Surgery: Understanding the anesthetic management of pediatric patients undergoing surgery.
- Case Discussion: Reviewing case studies and understanding the anesthetic management plan.

Day 5:

- Anesthesia for Geriatric Surgery: Introduction to the anesthetic management of geriatric patients undergoing surgery.
- Anesthesia for Day Surgery: Understanding the anesthetic management of patients undergoing day surgery.

End of Week 4:

- Reflection: At the end of the week, students will write a short reflection on their overall experience in the Anesthesia elective and how it has impacted their understanding of anesthesia.
- Assessment: Students will take a comprehensive exam at the end of the week to test their knowledge of all the topics covered in the elective.

In addition to these reflections and assessments, there can also be opportunities for students to receive feedback from their instructors and peers throughout the elective. This feedback can help students identify areas where they need to improve and areas where they excel, allowing them to tailor their learning experience and achieve their goals.

Conclusion:

Overall, the four-week schedule provides an overview of various aspects of anesthesia, including basic principles, techniques, and management of various surgical procedures. The schedule also covers the anesthetic management of special populations, including pediatric, geriatric, and pregnant patients, as well as emergency situations. The case discussions at the end of each week provide students with an opportunity to apply their knowledge and understanding of anesthetic management to real-life scenarios. 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:
Electives Officer
Email: electives.officer@nwgh.pk

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: 3/elective rotation
Prerequisite(s): Year 3, 4, 5 of MBBS
Faculty Doctors: Dr Ahmad Fawad, Dr Hamid Mehmood
Elective Director: Senior Registrar

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.

WEEKLY SCHEDULE

Week 1:

Day 1:

- Introduction and orientation to the department and staff
- Introduction to Cardiology: Overview of the cardiovascular system and common cardiac diseases
- Patient Evaluation: History taking, physical examination, and diagnostic tests

Day 2:

- ECG Interpretation: Understanding the normal and abnormal ECG patterns
- Case Discussion: Reviewing case studies and applying ECG interpretation skills

Day 3:

- Cardiac Imaging: Introduction to echocardiography and cardiac MRI
- Patient Evaluation: Applying imaging techniques in patient evaluation

Day 4:

- Pharmacology: Understanding the pharmacological management of cardiac diseases
- Case Discussion: Reviewing case studies and applying pharmacological management skills

Day 5:

- Reflection: Students will write a short reflection on their understanding of the basic principles of cardiology and their experience during the week.
- Assessment: Students will take a quiz at the end of the week to test their knowledge of the basic principles of cardiology.

Week 2:

Day 1:

- Coronary Artery Disease: Pathophysiology and diagnosis
- Cardiac Rehabilitation: Introduction to cardiac rehabilitation programs

Day 2:

- Heart Failure: Pathophysiology and diagnosis
- Case Discussion: Reviewing case studies and applying heart failure management skills

Day 3:

- Valvular Heart Disease: Pathophysiology and diagnosis
- Patient Evaluation: Applying imaging techniques in valvular heart disease evaluation

Day 4:

- Arrhythmias: Introduction to arrhythmias and their management
- Case Discussion: Reviewing case studies and applying arrhythmia management skills

Day 5:

- Reflection: Students will write a short reflection on their understanding of the management of cardiac diseases and their experience during the week.
- Assessment: Students will take a quiz at the end of the week to test their knowledge of the management of cardiac diseases.

Week 3:

Day 1:

- Acute Coronary Syndromes: Diagnosis and management
- Patient Evaluation: Applying imaging techniques in acute coronary syndromes evaluation

Day 2:

- Cardiac Surgery: Introduction to cardiac surgical procedures
- Case Discussion: Reviewing case studies and understanding the perioperative management of cardiac surgery patients

Day 3:

- Cardiomyopathies: Pathophysiology and diagnosis
- Patient Evaluation: Applying imaging techniques in cardiomyopathy evaluation

Day 4:

- Cardiac Emergencies: Management of cardiac emergencies, including cardiac arrest and acute pulmonary edema
- Case Discussion: Reviewing case studies and applying cardiac emergency management skills

Day 5:

- Reflection: Students will write a short reflection on their understanding of the management of cardiac emergencies and their experience during the week.
- Assessment: Students will take a quiz at the end of the week to test their knowledge of the management of cardiac emergencies.

Week 4:

Day 1:

- Cardiovascular Risk Factors: Introduction to cardiovascular risk factors and their management
- Prevention: Understanding the role of lifestyle modifications and medication in the prevention of cardiovascular diseases

Day 2:

- Ethics in Cardiology: Understanding ethical issues in cardiology, including end-of-life care and organ donation
- Case Discussion: Reviewing case studies and applying ethical principles in cardiology

Day 3:

- Cardiovascular Research: Introduction to cardiovascular research and its impact on clinical practice
- Cardiac Rehabilitation: Understanding the role of cardiac rehabilitation in the management of cardiac diseases

Day 4:

- Review and Exam Preparation: Reviewing the topics covered in the elective and preparing for the final exam
- Case Presentation: Students will present a case study on a cardiac disease they encountered during the elective

Day 5:

- Reflection: Students will write a final reflection on their overall experience during the elective, including what they learned, how it has impacted their understanding of cardiology, and any areas they would like to explore further in the future.
- Assessment: Students will take a final exam covering the topics covered during the elective.

In addition to the daily planned activities, students will have the opportunity to shadow cardiologists and attend rounds with cardiology teams throughout the four-week period. They will also be encouraged to ask questions, participate in discussions, and seek feedback from their preceptors and peers. This will allow them to further enhance their learning and gain a better understanding of the practical aspects of cardiology.

Assessment methods will include quizzes, case discussions, a case presentation, a final reflection, and a final exam. These assessments will allow students to monitor their progress, identify areas for improvement, and demonstrate their knowledge and skills in cardiology. The electees may be asked to prepare and submit a written report or presentation on a specific topic in cardiology.

Overall, this structured four-week schedule for an elective in cardiology aims to provide students with a comprehensive understanding of cardiology, including its basic principles, management strategies, and ethical considerations. It also allows for hands-on learning and reflection, ensuring that students are well-prepared for their future careers in healthcare.

Career Opportunities:
An elective in Cardiology can be a great steppingstone 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 Officer
Email: electives.officer@nwgh.pk

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/elective rotation
Prerequisite(s): Year 3, 4, 5 of MBBS
Faculty Drs: Prof. Niaz Ali, Prof. Zahoor Ahmad
Elective Director: Senior Registrar

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

For Cardiac Surgery

Week 1:

Day 1:

- Orientation, meet the team, review goals and expectations.
- Introduction to Cardiac Surgery: Overview of the anatomy of the heart and the common cardiac surgical procedures
- Preoperative Evaluation: History taking, physical examination, and diagnostic tests.

Day 2:

- Perioperative Management: Understanding the management of patients undergoing cardiac surgery, including anesthetic considerations.
- Cardiac Imaging: Introduction to echocardiography and cardiac MRI for preoperative evaluation

Day 3:

- Coronary Artery Bypass Grafting (CABG): Overview of the procedure and perioperative management
- Case Discussion: Reviewing case studies and applying knowledge of CABG.

Day 4:

- Valve Surgery: Overview of the procedure and perioperative management
- Cardiac Rehabilitation: Introduction to cardiac rehabilitation programs for postoperative management

Day 5:

- Reflection: Students will write a short reflection on their understanding of the basic principles of cardiac surgery and their experience during the week.
- Assessment: Students will take a quiz at the end of the week to test their knowledge of the basic principles of cardiac surgery.

Week 2:

Day 1:

- Aortic Surgery: Overview of the procedure and perioperative management
- Patient Evaluation: Applying imaging techniques in aortic surgery evaluation.

Day 2:

- Heart Failure Surgery: Overview of the procedure and perioperative management
- Case Discussion: Reviewing case studies and applying knowledge of heart failure surgery.

Day 3:

- Cardiac Transplantation: Overview of the procedure and perioperative management
- Patient Evaluation: Applying imaging techniques in cardiac transplantation evaluation.

Day 4:

- Complications of Cardiac Surgery: Understanding and managing complications such as bleeding, infection, and postoperative arrhythmias
- Case Discussion: Reviewing case studies and applying knowledge of complication management.

Day 5:

- Reflection: Students will write a short reflection on their understanding of the management of cardiac surgical procedures and their experience during the week.
- Assessment: Students will take a quiz at the end of the week to test their knowledge of the management of cardiac surgical procedures.

Week 3:

Day 1:

- Congenital Heart Surgery: Overview of the procedure and perioperative management
- Patient Evaluation: Applying imaging techniques in congenital heart surgery evaluation.

Day 2:

- Minimally Invasive Cardiac Surgery: Overview of the procedure and perioperative management
- Case Discussion: Reviewing case studies and applying knowledge of minimally invasive cardiac surgery.

Day 3:

- Cardiopulmonary Bypass: Introduction to the technology and its use in cardiac surgery
- Patient Evaluation: Applying imaging techniques in cardiopulmonary bypass evaluation.

Day 4:

- Ethics in Cardiac Surgery: Understanding ethical issues in cardiac surgery, including end-of-life care and organ donation.
- Case Discussion: Reviewing case studies and applying ethical principles in cardiac surgery

Day 5:

- Reflection: Students will write a short reflection on their understanding of the ethical considerations in cardiac surgery and their experience during the week.
- Assessment: Students will take a quiz at the end of the week to test their knowledge of the ethical considerations in cardiac surgery.

Week 4:

Day 1:

- Advanced Cardiac Surgery Techniques: Overview of advanced techniques such as robotic surgery and hybrid procedures
- Patient Evaluation: Applying imaging techniques in advanced cardiac surgery evaluation

Day 2:

- Research in Cardiac Surgery: Introduction to cardiac surgery research and its impact on clinical practice
- Case Discussion: Reviewing case studies and understanding the role of research in cardiac surgery

Day 3:

- Review and Exam Preparation: Reviewing the topics covered in the elective and preparing for the final exam by discussing and answering practice questions.

Day 4:

- Mentorship: Students will have the opportunity to shadow and work with cardiac surgeons, nurses, and other healthcare professionals, gaining hands-on experience in the cardiac surgery setting.
- Reflection: Students will write a final reflection on their overall experience during the elective, including what they learned, how it has impacted their understanding of cardiac surgery, and any areas they would like to explore further in the future.

Day 5:

- Assessment: Students will take a final exam covering the topics covered during the elective.

In addition to the daily planned activities, students will be encouraged to ask questions, participate in discussions, and seek feedback from their preceptors and peers. This will allow them to further enhance their learning and gain a better understanding of the practical aspects of cardiac surgery.

Assessment methods will include quizzes, case discussions, a case presentation, a final reflection, and a final exam. These assessments will allow students to monitor their progress, identify areas for improvement, and demonstrate their knowledge and skills in cardiac surgery.

Overall, this structured four-week schedule for an elective in cardiac surgery aims to provide students with a comprehensive understanding of cardiac surgery, including its basic principles, management strategies, and ethical considerations. It also allows for hands-on learning and reflection, ensuring that students are well-prepared for their future careers in healthcare.

For Thoracic Surgery

Week 1:

Day 1:

- Orientation, meet the team, review goals and expectations.

- Introduction to Thoracic Surgery: Students will attend lectures on the basic principles of thoracic surgery, including anatomy, physiology, and common surgical procedures.
- Observation: Students will observe live surgeries in the operating room, learning how to prepare for surgery and assist during the procedure.

Day 2:

- Patient Assessment: Students will learn how to assess patients before surgery, including taking a detailed history, performing a physical exam, and ordering relevant diagnostic tests.
- Observation: Students will observe surgeries related to patient assessment, including bronchoscopy and mediastinoscopy procedures.

Day 3:

- Clinical Skills: Students will learn basic clinical skills required for thoracic surgery, such as chest tube insertion, suture techniques, and knot tying.
- Observation: Students will observe surgeries related to chest tube insertion and suturing techniques.

Day 4:

- Mentorship: Students will have the opportunity to shadow and work with thoracic surgeons, nurses, and other healthcare professionals, gaining hands-on experience in the thoracic surgery setting.
- Reflection: Students will reflect on their observations and experiences so far and share their insights with the preceptors and peers.

Day 5:

- Assessment: Students will take a quiz covering the topics covered during the week.

Week 2:

Day 1:

- Advanced Surgical Techniques: Students will attend lectures on advanced surgical techniques used in thoracic surgery, such as robotic-assisted surgery and video-assisted thoracoscopic surgery (VATS) – (subject to availability)
- Observation: Students will observe live surgeries that use these advanced techniques. ((subject to availability))

Day 2:

- Complications and Management: Students will learn how to identify and manage complications that may arise during thoracic surgery, including bleeding, pneumothorax, and pulmonary embolism.
- Observation: Students will observe surgeries related to managing these complications.

Day 3:

- Interdisciplinary Care: Students will learn about the interdisciplinary approach to patient care in thoracic surgery, including the role of nursing, respiratory therapy, and social work in the care of thoracic surgery patients.
- Observation: Students will observe interdisciplinary team meetings and participate in discussions about patient care.

Day 4:

- Mentorship: Students will have the opportunity to shadow and work with thoracic surgeons, nurses, and other healthcare professionals, gaining hands-on experience in the thoracic surgery setting.
- Reflection: Students will reflect on their observations and experiences so far and share their insights with the preceptors and peers.

Day 5:

- Assessment: Students will take a quiz covering the topics covered during the week.

Week 3:

Day 1:

- Minimally Invasive Procedures: Students will learn about minimally invasive procedures used in thoracic surgery, such as laparoscopic procedures and VATS lobectomies.
- Observation: Students will observe live surgeries that use these minimally invasive procedures.

Day 2:

- Thoracic Oncology: Students will learn about the diagnosis and management of thoracic malignancies, including lung cancer, mesothelioma, and thymoma.
- Observation: Students will observe surgeries related to the management of thoracic malignancies.

Day 3:

- Thoracic Trauma: Students will learn about the management of thoracic trauma, including penetrating and blunt chest injuries.
- Observation: Students will observe surgeries related to thoracic trauma management.

Day 4:

- Mentorship: Students will have the opportunity to shadow and work with thoracic surgeons, nurses, and other healthcare professionals, gaining hands-on experience in the thoracic surgery setting.
- Reflection: Students will reflect on their observations and experiences so far, and share their insights with the preceptors and peers.

Day 5:

- Assessment: Students will take a quiz covering the topics covered during the week.

Week 4:

Day 1:

- Cardiopulmonary Bypass: Students will learn about the principles and techniques of cardiopulmonary bypass (CPB) and the role of the perfusionist during thoracic surgery.

- Observation: Students will observe surgeries that use CPB and work with perfusionists to gain a better understanding of their role in the surgical team.

Day 2:

- Thoracic Anesthesia: Students will learn about the principles and techniques of thoracic anesthesia, including one-lung ventilation and the use of bronchial blockers.
- Observation: Students will observe surgeries related to thoracic anesthesia and work with anesthesiologists to gain a better understanding of their role in the surgical team.

Day 3:

- Quality Improvement: Students will learn about quality improvement in thoracic surgery, including the use of data and analytics to improve patient outcomes and reduce complications.
- Observation: Students will observe meetings related to quality improvement and participate in discussions about patient outcomes and quality improvement initiatives.

Day 4:

- Mentorship: Students will have the opportunity to shadow and work with thoracic surgeons, nurses, and other healthcare professionals, gaining hands-on experience in the thoracic surgery setting.
- Reflection: Students will reflect on their observations and experiences during the elective and share their insights with the preceptors and peers.

Day 5:

- Assessment: Students will take a final exam covering the topics covered during the entire elective.

Reflection and Assessment: Throughout the four-week elective, students will have the opportunity to reflect on their experiences and learning. They will be encouraged to keep a daily journal to reflect on their observations and discuss their insights with the preceptors and peers. In addition, formal assessments will be conducted at the end of each week, including quizzes and a final exam, to evaluate the students' knowledge and understanding of the topics covered during the elective. Feedback will be provided to the students to help them identify areas for improvement and to reinforce their strengths.

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:
Electives Officer

Email: electives.officer@nwgh.pk

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: 3/rotation
Prerequisite(s): Year 3, 4, 5 of MBBS
Faculty Drs: Dr Izharullah Babar, Dr Humera Gillani
Elective Director: Senior Registrar

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.

WEEKLY SCHEDULE

Week 1:

Day 1:

- Orientation, meet the team, review goals and expectations.
- Introduction to Dermatology: overview of common dermatological conditions, common procedures, and basic clinical skills
- Observation of a dermatological consultation
- Reflection on the observation and discussion with the preceptor

Day 2:

- Review of common skin conditions: acne, psoriasis, eczema
- Observation of a dermatological consultation
- Reflection on the observation and discussion with the preceptor

Day 3:

- Introduction to dermatological procedures: cryotherapy, biopsies, excisions
- Hands-on practice of cryotherapy
- Reflection on the experience and discussion with the preceptor

Day 4:

- Introduction to dermatopathology: interpretation of biopsy specimens
- Observation of a dermatopathology review
- Reflection on the observation and discussion with the preceptor

Day 5:

- Review of dermatological emergencies: anaphylaxis, Stevens-Johnson syndrome
- Observation of a patient with a dermatological emergency
- Reflection on the observation and discussion with the preceptor

Week 2:

Day 1:

- Introduction to pediatric dermatology
- Observation of a pediatric dermatology consultation
- Reflection on the observation and discussion with the preceptor

Day 2:

- Review of common pediatric skin conditions: atopic dermatitis, diaper rash, viral exanthems
- Observation of a pediatric dermatology consultation

- Reflection on the observation and discussion with the preceptor

Day 3:

- Introduction to cosmetic dermatology
- Observation of a cosmetic dermatology consultation
- Reflection on the observation and discussion with the preceptor

Day 4:

- Review of common cosmetic dermatology procedures: Botox, fillers, laser therapy
- Hands-on practice of a cosmetic procedure under supervision
- Reflection on the experience and discussion with the preceptor

Day 5:

- Introduction to dermatological research
- Observation of a research meeting
- Reflection on the observation and discussion with the preceptor

Week 3:

Day 1:

- Introduction to dermatological surgery
- Observation of a surgical procedure
- Reflection on the observation and discussion with the preceptor

Day 2:

- Review of common surgical techniques: flaps, grafts, closures
- Hands-on practice of a surgical technique under supervision
- Reflection on the experience and discussion with the preceptor

Day 3:

- Introduction to dermatological imaging
- Observation of an imaging review
- Reflection on the observation and discussion with the preceptor

Day 4:

- Review of common imaging techniques: ultrasound, dermoscopy, OCT
- Hands-on practice of an imaging technique under supervision
- Reflection on the experience and discussion with the preceptor

Day 5:

- Introduction to dermatological education
- Observation of a teaching session
- Reflection on the observation and discussion with the preceptor

Week 4:

Day 1:

- Introduction to dermatological ethics
- Discussion of ethical considerations in dermatology
- Reflection on the discussion with the preceptor

Day 2:

- Review of communication skills in dermatology
- Role-playing of difficult patient encounters
- Reflection on the experience and discussion with the preceptor

Day 3:

- Introduction to dermatological leadership
- Discussion of leadership skills and opportunities in dermatology
- Reflection on the discussion with the preceptor

Day 4:

- Review of career options in dermatology
- Discussion of different paths in dermatology
- Reflection on the discussion with the preceptor

Day 5:

- Assessment of knowledge and skills
- Written and practical exam
- Reflection on the experience and discussion with the preceptor

Throughout the 4 weeks:

- Daily reading assignments and journal articles related to the topics covered
- Regular meetings with the preceptor to discuss progress and address any questions or concerns
- Regular reflective writing assignments to encourage critical thinking and self-assessment
- Opportunities to present cases or topics of interest to the preceptor and peers
- Regular assessments to monitor progress and identify areas for improvement

At the end of the elective, the student will be expected to:

- Demonstrate knowledge and understanding of common dermatological conditions, procedures, and techniques

- Demonstrate proficiency in performing basic dermatological procedures and techniques
- Demonstrate effective communication and interpersonal skills in patient care
- Demonstrate critical thinking and problem-solving skills in the context of dermatological care
- Reflect on the learning experience and identify areas for continued growth and development in the field of 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 Officer
Email: electives.officer@nwgh.pk

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: 3/rotation
Prerequisite(s): Year 3, 4, 5 of MBBS
Faculty Doctors: Dr Sajjad Ali Khan
Elective Director: Senior Registrar

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.

WEEKLY SCHEDULE

Week 1:

Day 1:

- Orientation, meet the team, review goals and expectations
- Introduction to the emergency department (ED) and staff
- Tour of the ED
- Introduction to the electronic medical record (EMR)
- Review of common presentations in the ED (e.g., chest pain, shortness of breath)

Day 2:

- Observation of triage process and patient assessments
- Review of vital signs and basic life support skills
- Participation in mock codes

Day 3:

- Introduction to procedural skills (e.g., IV insertion, suturing)
- Observation of procedures performed in the ED
- Practice of procedural skills on simulation models (subject to availability)

Day 4:

- Review of common medications used in the ED
- Observation of medication administration
- Participation in medication administration under supervision

Day 5:

- Reflection on observations and experiences from the week
- Assessment on basic knowledge and skills learned during the week

Week 2:

Day 1:

- Introduction to advanced life support skills (e.g., intubation, defibrillation)
- Review of common trauma presentations in the ED
- Participation in trauma simulations

Day 2:

- Observation of the management of critically ill patients
- Participation in patient care with supervision

Day 3:

- Review of imaging modalities used in the ED (e.g., X-ray, CT scan)
- Observation of imaging interpretation
- Participation in imaging interpretation under supervision

Day 4:

- Introduction to ultrasound in the ED
- Observation of ultrasound use in patient care
- Practice of basic ultrasound skills on simulation models (subject to avalibility)

Day 5:

- Reflection on observations and experiences from the week
- Assessment on advanced knowledge and skills learned during the week

Week 3:

Day 1:

- Introduction to toxicology in the ED
- Review of common toxicology presentations
- Participation in toxicology simulations (subject to availability)

Day 2:

- Observation of psychiatric emergencies in the ED
- Participation in patient care with supervision

Day 3:

- Review of infectious disease presentations in the ED
- Observation of infectious disease management
- Participation in infectious disease management under supervision

Day 4:

- Introduction to disaster medicine in the ED
- Review of the ED's role in disaster response
- Participation in disaster response simulations

Day 5:

- Reflection on observations and experiences from the week
- Assessment on knowledge and skills related to specialized topics learned during the week

Week 4:

Day 1:

- Introduction to research in emergency medicine
- Review of current research in the field
- Participation in a research project

Day 2:

- Observation of the role of the emergency medicine physician in hospital administration
- Review of hospital policies and procedures
- Participation in hospital rounds

Day 3:

- Review of end-of-life care in the ED
- Observation of end-of-life care
- Participation in end-of-life care discussions with patients and families

Day 4:

- Introduction to career development in emergency medicine
- Review of residency programs and career options
- Participation in discussions with emergency medicine physicians

Day 5:

- Reflection on overall experience during the elective
- Final assessment on knowledge and skills acquired during the elective
- Evaluation of the elective experience by the student and preceptor

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 Officer
Email: electives.officer@nwgh.pk

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: 3/elective rotation
Prerequisite(s): Year 3, 4, 5 of MBBS
Faculty Doctors: Dr Zara Farrukh Shah
Elective Director: Senior Registrar

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 Officer
Email: electives.officer@nwgh.pk

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: 3/elective rotation
Prerequisite(s): Year 3, 4, 5 of MBBS
Faculty Doctors: Prof. Iftikhar Ali Shah, Dr. Kamran Amir Khan, Dr. Shahzad Ahmad
Elective Director: Senior Registrar

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 Officer
Email: electives.officer@nwgh.pk

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: 3/month.
Prerequisite(s): Year 3, 4, 5 of MBBS
Faculty Doctors: Prof. Sardar Alam, Dr Haroon
Elective Director: Senior Registrar

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 neuro-oncology, 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 Officer
Email: electives.officer@nwgh.pk

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: 3/month
Prerequisite(s): Year 3, 4, 5 of MBBS
Faculty Doctors: Prof. Tariq Khan, Dr, Faiqa Filza, Dr. Tariq Barki, Dr. Sarmad Bukhari
Elective Director: Senior Registrar

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 Officer
Email: electives.officer@nwgh.pk

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: 3/month
Prerequisite(s): Year 3, 4, 5 of MBBS
Faculty Doctors: Prof. Mehr Un Nisa, Prof. Sidra Jabbar Khan, Dr. Fazilat Jamala, Dr. Samia Zahid, Dr. Nargis Gulab, Dr. Sanodia Afridi, Dr. Saima Ayub
Elective Director: Senior Registrar

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.
2. 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 patient-centered 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 hands-on 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

CONTACT:
Elective Officer
Email: electives.officer@nwgh.pk

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: 3/month
Prerequisite(s): Year 3, 4, 5 of MBBS
Faculty Doctors: Prof. Tajjamul Khan, Dr. Hassan Yaqoob, Dr. Syed Noor
Elective Director: Senior Registrar

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 Officer
Email: electives.officer@nwgh.pk

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: 3/month
Prerequisite(s): Year 3, 4, 5 of MBBS
Faculty Doctors: Prof. Khushnood Ali Baz, Prof. Raja Irfan Qadir, Dr. Raza Hassan, Dr. Hussain Wahab
Elective Director: Senior Registrar
Contact: electives.coordinator@ahl.pk , +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 Officer
Email: electives.officer@nwgh.pk

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: 3/month
Prerequisite(s): Year 3, 4, 5 of MBBS
Faculty Doctors: Prof. Mohibullah, Prof. Saeedullah, Dr. Imran Mohib, Dr. Shahzad Saeedullah
Elective Director: Senior Registrar

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 Officer
Email: electives.officer@nwgh.pk

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: 3/month
Prerequisite(s): Year 3, 4, 5 of MBBS
Faculty Doctors: Dr. Zulfiqar Qadir
Elective Director: Senior Registrar

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 Officer
Email: electives.officer@nwgh.pk

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: 3/month
Prerequisite(s): Year 3, 4, 5 of MBBS
Faculty Doctors: Prof. Bilal Sethi, Prof. Muhammad Arif, Dr. Asif Saleem Afridi, Dr. Naeem Ashraf, Dr. Muhammad Athar Khalily, Dr, Sehar
Elective Director: Senior Registrar

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: electives.coordinator@ahl.pk , +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 Officer
Email: electives.officer@nwgh.pk

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: 3/month
Prerequisite(s): Year 3, 4, 5 of MBBS
Faculty Doctors: Prof. Inayat Shah Roghani, Dr. Shandana Khan, Dr. Fariha Afzal, Dr. Sana Iqbal, Dr. Saad Siddiqui
Elective Director: Senior Registrar
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.

General Surgery

CONTACT:
Elective Officer
Email: electives.officer@nwgh.pk

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: 3/month
Prerequisite(s): Year 3, 4, 5 of MBBS
Faculty Doctors: Prof. Tariq Jabbar Khan, Dr. Muhammad Farid Khan, Dr. Shahid Ahmad Khan, Dr. Tarbia, Dr. Rumman Khan, Dr. Ayesha Ali Khan
Elective Director: Senior Registrar
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 Officer
Email: electives.officer@nwgh.pk

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: 3/month
Prerequisite(s): Year 3, 4, 5 of MBBS
Faculty Doctors: Prof. Mian Naushad Ali Kakakhel, Dr. Irfanullah Khan, Dr. Aziz Ur Rahman
Elective Director: Senior Registrar

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 Officer
Email: electives.officer@nwgh.pk

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 Doctors: Prof. Arshad Hussain
Elective Director: Senior Registrar

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 fine-needle 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 Officer
Email: electives.officer@nwgh.pk

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 Doctors: Prof. Obaidullah
Elective Director: Senior Registrar

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 Officer
Email: electives.officer@nwgh.pk

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 Doctors: Dr. Shuja Sherafgan
Elective Director: Senior Registrar

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 Officer
Email: electives.officer@nwgh.pk

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 Doctors: Prof. Muhammad Asim, Dr. Arsalan Rahatullah
Elective Director: Senior Registrar

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 Officer
Email: electives.officer@nwgh.pk

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 Doctors: Dr. Saadullah
Elective Director: Senior Registrar

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/Pathology

CONTACT:
Elective Officer
Email: electives.officer@nwgh.pk

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 Doctors:
Elective Director:

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 Officer
Email: electives.officer@nwgh.pk

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 Doctors: Prof. Arbab Nisar, Dr. Aimal Khan
Elective Director: Senior Registrar

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 Officer
Email: electives.officer@nwgh.pk

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 Doctors: Prof. Hazratullah Khattak
Elective Director: Senior Registrar

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 Officer
Email: electives.officer@nwgh.pk

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 Doctors: Dr. Muhammad Hanif
Elective Director: Senior Registrar

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:
ElectiveOfficer
Email: electives.officer@nwgh.pk

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 Doctors: Dr. Khatira
Elective Director: Senior Registrar

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 Officer
Email: electives.officer@nwgh.pk

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 Doctors: Dr. Ayesha Mufti
Elective Director: Senior Registrar

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.

APPENDICES

CONFIDENTIALITY AGREEMENT

(Any student wishing to do an elective at Northwest Hospitals will be required to sign this confidentiality agreement)

This Confidentiality Agreement ("Agreement") is made between Northwest General Hospital and Research Centre (NWGH & RC)/Northwest Teaching Hospital (NWTH) and the undersigned student ("Student") participating in an elective placement at NWGH & RC and NWTH.

Purpose: The purpose of this Agreement is to ensure the confidentiality of NWGH & RC and NWTH's confidential information and protect it from any unauthorized use or disclosure by elective students.

Confidential Information: Confidential information includes, but is not limited to, patient records, medical records, personnel records, financial records, trade secrets, intellectual property, research data, and any other information that is not generally known to the public.

Obligations of Student: Student agrees to keep all confidential information received from NWGH & RC and NWTH strictly confidential and to not disclose or use such confidential information except as authorized by NWGH & RC and NWTH.

Student agrees to:

1. Use confidential information only for the purpose of completing the elective placement at NWGH & RC and NWTH.
2. Not disclose confidential information to any third party, including family, friends, colleagues, or other students.
3. Store and secure all confidential information in a manner that prevents unauthorized access, use, or disclosure; and
4. Return or destroy all confidential information upon completion of the elective placement at NWGH & RC and NWTH.

Term: This Agreement shall be effective for the duration of Student's elective placement at NWGH & RC and NWTH and for a period of five (5) years following the completion of the elective placement.

Breach of Agreement: Any breach of this Agreement by Student may result in immediate termination of the elective placement at NWGH & RC and NWTH and any academic consequences deemed appropriate by the student's home institution.

Governing Law: This Agreement shall be governed by and construed in accordance with the laws of Pakistan.

Entire Agreement: This Agreement constitutes the entire agreement between NWGH & RC and NWTH and Student with respect to the confidentiality of NWGH & RC and NWTH's confidential information.

Amendment: This Agreement may be amended by mutual written agreement between NWGH & RC and NWTH, and Student.

Assignment: This Agreement is not assignable or transferable by Student without the prior written consent of NWGH & RC and NWTH.

SIGNATURES:

For NWGH & RC and NWTH:

Name:

Title:

Date:

For Student:

Name:

Signature:

Date:

STUDENT DAILY ELECTIVE ACTIVITIES LOG

Please note that students should fill out this log at the end of each day during their elective period to document their activities, learning, challenges, and reflections. It serves as a valuable tool for self-reflection and discussions with faculty members and preceptors.

Name: _____

Date: _____

Elective Period: _____

1. **Date and Time:**
   Date: _____
   Start Time: _____ End Time: _____

2. **Learning Objectives:** State the learning objectives you set for the day.
   - Objective 1: _____
   - Objective 2: _____
   - Objective 3: _____

3. **Activities:** Describe the activities you participated in during the day, including any specific procedures, consultations, or treatments you observed or were involved in.

   _____

4. **Summary of Activities:** Provide a brief summary of the activities you engaged in throughout the day.

   _____

5. **Key Learnings:** Reflect on the key learnings or insights you gained from the day's activities.
   - Learning 1: _____
   - Learning 2: _____
   - Learning 3: _____

6. **Challenges Faced:** Identify any challenges or difficulties you encountered during the day.

   _____

7. **Solutions and Strategies:** Describe the strategies or solutions you employed to overcome the challenges faced.

   _____

8. **Interactions and Communication:** Reflect on your interactions with faculty members, preceptors, and other healthcare professionals.
   - Who did you interact with? _____
   - What conversations or discussions did you have?
     _____
     _____
   - How did these interactions contribute to your learning experience?
     _____
     _____

9. **Personal Reflection:** Reflect on your personal and professional growth throughout the day.
   - What aspects of the elective experience are you finding most valuable?
     _____
     _____
   - How is this experience shaping your future goals and aspirations in the field of your choice?
     _____
     _____

10. **Additional Comments or Suggestions:** Provide any additional comments or suggestions regarding the day's activities or the elective experience as a whole.
    _____
    _____

11. **Signature:** By signing below, I confirm that the information provided in this log is accurate and reflective of my daily elective activities.

Student's Signature: _____ Date: _____

FINAL ASSESSMENT REPORT

(To be filled in, signed by the elective supervisor at the end of the student's elective session under his/her supervision)

Student Name:		
Class:	Start Date:	End Date:
Supervisor Name: Designation:		
Elective Site:		

Please assess the student's performance in the following areas during this elective rotation under your supervision:

1 **Unsatisfactory** (Well below expected level)	2 **Marginal** (additional work needed)	3 **Good** (performance at the expected level)	4 **Very Good** (Area of strength)	5 **Excellent** (Exceptional performance)

Medical Expert	1	2	3	4	5	NA
Demonstrates an appropriate knowledge base for level of training						
Able to effectively and selectively identify, assess and prioritize the main presenting symptoms in a patient encounter						
Recognizes and responds appropriately to urgent and emergent conditions						
Gathers relevant information (e.g., through history and examination) and uses that information to generate appropriate differential diagnoses						
Establishes goals of care in collaboration with patients and their families						
Establishes patient-centered care plans that include the patient, their family, other health professionals and consultants						

Communicator	1	2	3	4	5	NA
Establishes effective therapeutic relationships with patients and their families, which incorporates cultural, religious, socio-economic and gender considerations						
Utilizes patient-centered interviewing skills effectively and consistently						
Shares information and explanations that are clear, accurate and timely while checking for patient and family understanding						
Communicates clearly and concisely in oral, written and electronic correspondences						

Collaborator	1	2	3	4	5	NA
Establishes and maintains positive working relationships with doctors, other students and colleagues in the health professions						
Participates in effective shared decision making with the healthcare team						
Demonstrates safe handover of the care of patients to other health care professionals						

Leader/Manager	1	2	3	4	5	NA
Contributes to a culture that promotes patient safety						
Partners with patients to consistently use resources efficiently and cost-effectively						

Health Advocate	1	2	3	4	5	NA
Identifies vulnerable or at-risk patients and initiates appropriate interventions						
Is familiar and knows how to access community-based resources for patients						
Advocates for broader social change to address determinants of health						

Scholar	1	2	3	4	5	NA
Recognizes knowledge gaps and seeks appropriate resources to address these gaps						
Integrates best available evidence into clinical decision-making						
Effectively teaches others						

Professional	1	2	3	4	5	NA
Demonstrates professional behavior						
Demonstrates a commitment to excellence in all aspects of practice						
Recognizes and responds to ethical issues encountered in practice						
Demonstrates accountability to patients, society and the profession						
Adheres to professional standards						

OVERALL COMMENTS:

Strengths of the Student: _____

_____

_____

Improvements needed: _____

_____

_____

_____

_____

_____

_____

_____

Supervisor Signature

EVALUATION OF THE ELECTIVE PROGRAM

SECTION 1: STUDENT ELECTIVE FEEDBACK FORM

(To be filled in by the student at the end of his/her elective period and submitted with Electives Officer at DERIL)

1. Personal Information:
    - Name:
    - Student ID:
    - Email:
    - Elective Period (Start date---------- - End date ----------)
2. Overall Experience:
   How would you rate your overall elective experience at Northwest General Hospital & Research Centre/Northwest Teaching Hospital?
   (Scale: 1-5, with 1 being very poor and 5 being excellent)
    - Excellent
    - Very good
    - Good
    - Fair
    - Poor
3. Learning Opportunities:
   Did the elective provide adequate learning opportunities in the field of your interest?
    - Yes
    - No

   Please describe the learning activities or experiences that were most valuable to you:
   _____
   _____
   _____

4. Faculty and Preceptors:
   How would you rate the support and guidance provided by the faculty and preceptors? (Scale: 1-5, with 1 being very poor and 5 being excellent)
    - Excellent
    - Very good
    - Good
    - Fair
    - Poor

Please provide any feedback or suggestions regarding the faculty and preceptors:

_____

_____

_____

5. Elective Organization and Logistics:

5.1. How would you rate the organization and logistics of the elective program? (Scale: 1-5, with 1 being very poor and 5 being excellent)

- Excellent
- Very good
- Good
- Fair
- Poor

5.2. Were the schedules and activities well-planned and communicated in advance?

- Yes
- No

5.3. Please provide any comments or suggestions regarding the organization and logistics of the elective:

_____

_____

_____

6. Facilities and Resources:

6.1. How would you rate the availability and accessibility of the necessary facilities and resources during your elective? (Scale: 1-5, with 1 being very poor and 5 being excellent)

- Excellent
- Very good
- Good
- Fair
- Poor

6.2. Please provide any feedback or suggestions regarding the facilities and resources:

_____

_____

_____

7. Interprofessional Collaboration:

7.1. Did you have the opportunity to collaborate with healthcare professionals from different disciplines during your elective?

- Yes
- No

7.2.Please describe your experiences or interactions with other healthcare professionals:

_____
_____
_____

8. Elective Curriculum:

8.1.How would you rate the content and relevance of the elective curriculum? (Scale: 1-5, with 1 being very poor and 5 being excellent)

- Excellent
- Very good
- Good
- Fair
- Poor

8.2.Please provide any feedback or suggestions regarding the elective curriculum:

_____
_____
_____

9. Personal Development:

9.1.Did the elective contribute to your personal and professional development?

- Yes
- No

9.2.Please describe how the elective has impacted your knowledge, skills, and career goals:

_____
_____
_____

10. Suggestions for Improvement:

Do you have any suggestions for improving the elective program at Northwest General Hospital & Research Centre, and Northwest Teaching Hospital?

_____
_____
_____

11. Additional Comments:

Please provide any additional comments or suggestions you may have.

_____

_____

_____

SECTION 2: FACULTY FEEDBACK

The following survey will be used to collect feedback from faculty at placement sites about their experience hosting students during the elective program:

1. Overall, how satisfied were you with the performance of the student during their elective program placement?
   - Very satisfied
   - Satisfied
   - Neutral
   - Dissatisfied
   - Very dissatisfied
2. How well did the elective course(s) align with the learning objectives of the medical program?
   - Extremely well
   - Very well
   - Somewhat well
   - Not very well
   - Not at all well
3. How satisfied were you with the level of students engagement and participation in the elective course(s)?
   - Very satisfied
   - Somewhat satisfied
   - Neither satisfied nor dissatisfied
   - Somewhat dissatisfied
   - Very dissatisfied
4. How well did the students demonstrate their clinical skills and knowledge during their placement?
   - Very well
   - Well
   - Somewhat
   - Not well
   - Not at all
5. How professional were the students during their placement in terms of behavior, communication, and punctuality?
   - Very professional
   - Professional
   - Somewhat professional
   - Unprofessional

- Very unprofessional

6. How well did the students work with the healthcare team and interact with patients and their families during their placement?
   - Very well
   - Well
   - Somewhat
   - Not well
   - Not at all
7. Were the students responsive to feedback and willing to learn during their placement?
   - Yes
   - No
   - N/A
8. Would you be willing to host students from the elective program again in the future?
   - Yes
   - No
   - If No, why? _____

9. What suggestions do you have for improving the elective course(s)?

   _____

   _____

   _____

   _____

10. Please provide any additional comments or feedback about your experience hosting students during the elective program:

    _____

    _____

    _____