



EMERGENCY MEDICINE

**Training Program
Leading to the degree of**

MASTER OF EMERGENCY MEDICINE

**SHAHEED ZULFIQAR ALI BHUTTO MEDICAL UNIVERSITY
ISLAMABAD**



SHAHEED ZULFIQAR ALI BHUTTO MEDICAL UNIVERSITY

CURRICULUM BRIEF

Master of EMERGENCY MEDICINE



SHAHEED ZULFIQAR ALI BHUTTO MEDICAL UNIVERSITY

CURRICULUM DEVELOPMENT COMMITTEE

This Curriculum is developed by the following committee members.

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ROAD MAP OF EMERGENCY MEDICINE
(A Brief Summary)

GENERAL INFORMATION AND PROGRAM GOALS:

The University offers a 04-year program in the field of medicine emergency. This program intends to attract candidates that have an interest in the field of emergency medicine. The curriculum focuses on supervisor led training, and research.

The purpose of the Curriculum is to train doctors to be EM Consultants, able to provide urgent and emergency care to all undifferentiated patients attending ED nationwide, 24/7, 365 days every year. This includes leading the multi-professional resuscitation of sick and injured patients of all ages (from birth to advanced age and frailty) in addition to managing, leading and supporting all elements of care delivered by the multi-disciplinary teams throughout the full spectrum of acute illness and injury, physical and mental health needs that present to a modern day ED.

The breadth of the clinical presentations, or pathophysiological processes, that need to be known by EM specialists are listed as the Clinical Syllabus. Up to date knowledge and understanding of the assessment and treatment of patients presenting to the Emergency Department (ED) is a fundamental part of training. The knowledge and understanding will be the subject of private study, departmental and regional teaching and will be assessed in the Program of Assessment, in particular the formal examination schedule. The clinical knowledge and understanding outlined in the Clinical Syllabus is applied in a setting of varying demands, interspersed with rare and challenging situations, delivered by a workforce with a range of experience and the need for overview and leadership from the EM specialist.

COURSE DESCRIPTION:

The program of EMERGENCY MEDICINE will of various courses distributed over a span of four academic years composed of different department rotation. The four-year course includes duty hours of 36 per weekly in Emergency department via morning/Evening/night shifts and different departmental rotation as per their duty roster. The latter may include group discussion, clinical assignments & departmental/hospital duties.

The program consists of eight (11) specialty rotations, which are specific to the field of Emergency Medicine.

Specialty Modules:

4 year residency consist of Emergency rotation and different Emergency related Rotation:

- Emergency rotation (ER) for 6 months
- General medicine for 4 months
- General surgery for 3 month
- Emergency rotation (ER) for 4 months
- Neurosurgery for 2 months
- Orthopedics for 2 months
- CCU for 2 months
- Emergency rotation (ER) for 4 months
- ICU for 2 months
- Anesthesia for 2 months
- Pediatric Medicine and Pediatric surgery for 2 months
- Emergency rotation (ER) for 4 months
- Gynaecology for 1 month
- ENT for 2 weeks
- Eye for 2 weeks
- Radiology for 2 weeks
- Burns center for 2 months
- Emergency rotation (ER) for 8 months

Requirements of Emergency Medicine Degree for Graduate Students Enrolled in the Program.

- Fulfillment of University requirements for postgraduate study.
- Four (4) years of consecutive full-time advanced study and training.
- Complete and approved master's thesis based on original research during the course of study in an area related to specialty, suitable for emergency patients.
- Must complete all didactic & clinical work in the required curriculum and satisfactorily pass all the University examinations.
- A minimum of 75% must be earned in all work/examinations attempted in the master's program. A grade below this will require re-examination.

A complete road map for postgraduate MS/Mphil/MD/MDS can be seen on University website at <http://www.szabmu.edu.pk/content/downloads/road-map-for-postgraduate-residents.pdf>



INTRODUCTION

INTRODUCTION

The University offers a 04-year program in the field of medicine emergency. This program intends to attract candidates that have an interest in the field of emergency medicine. The curriculum focuses on supervisor led training, and research. The purpose of training for the Specialty Learning Outcome is the application of clinical knowledge to patient care in the ED, our vision for the provision of training in the work place is that it acknowledges the challenge that leadership in the ED represents. It also acknowledges that all have varying strengths and areas to improve, and that these be both refined and developed. The best use of training in the work place for learners is to find areas of challenge and to seek and reflect on feedback from trainers.

This curriculum has been developed on the basis of SPICES model which is indicative of the competencies required at the varying levels of training within the specialty together with the knowledge, skills and attitudes achieved by the trainee in acquiring those competencies. The training has been based on the current thinking and the requirements for

- Greater protection of the public interest by providing clear information as to the level of training achieved.
- Improved access to specialty training than general practitioners.
- Greater flexibility of training through the availability of multiple instructors.
- Producing a competent workforce with the appropriate skills and knowledge necessary to meet the varying levels of treatment complexity, as well as considering the relative need and demand of potential patients.
- Acquire the experience to carry out research projects, critically evaluate scientific publications and communicate clinical and research papers in journals and conferences.

A key principle underpinning the Program of Assessment is that a tick list is not followed, or a specific number of assessments accumulated. It is rather that there is a shared understanding of where trainees need to get to, in terms of the degree of independence, at the next stage of training and that training is geared to readying them. Trainers know which situations and circumstances are demanding and can guide learners to experience these, with support, in the work place. That is the point of work place encounters that are recorded in the log book. To that end, assessment in the work place should start at the beginning of the training year and pitched at outer edges of the trainees' 'comfort zone'.

Expertise in EM is pivotal to the good health of communities in the Pakistan. It is hard won, complex and requires a spread of knowledge, skills and attributes that are often called on all



at once. This curriculum sets out what these are and is designed to support their development, integration and assessment. It acknowledges that there are a range of talents within those training in the specialty. The curriculum sets out a minimum requirement, but our aim is also that it is used as the map to guide the pursuit of excellence for individuals. There is scope for developing areas of interest or particular expertise within the specialty. We aim to establish practices that develop clinicians who can thrive as individuals throughout their career in the ED.





RATIONALE



RATIONALE:

Need of program

This training program is structured keeping in view the need of emergency care. Following needs have been identified through formal and informal discussion with the stakeholders.

- Deficiency of the quality emergency and trauma care centers for both urban and rural areas as well as private and public sectors in the field of Emergency medicine.
- Dearth deficiency of competent faculty in the field.
- Deficiency of state-of-the-art emergency care training centers in the country.

Purpose of training

To provide guided training and assessment of specialty trainees in Accident and Emergency Medicine to produce consultants and trainers who are proficient in the contemporary skills of all the domains of emergency medicine and are competent to carry out individual research and continuing professional development.

Context of Training

To provide an organized educational program with guidance and supervision, a structured training program will be followed so that each trainee is exposed to different aspects of the subject and acquires special knowledge and skill as expected from the program. The training will provide a basis for the candidate to develop into a lifelong learner who is capable of self-reflection and self-directed learning. It will provide a basis for further ongoing development in the field of Emergency Medicine.

Duration of training

The program leading to Emergency Medicine will be of 04 years full time.



AIMS & OBJECTIVES

AIMS & OBJECTIVES.

Aims of Training

This curriculum seeks to provide a flexible, attractive training program for doctors training in EM, ensuring trainees have the opportunity to develop the full range of skills and knowledge they need to meet the standard required of a consultant in EM. The curriculum provides a framework for training, articulating the standard required to work at consultant level and at key progression points, as well as encouraging the pursuit of excellence in all aspects of clinical and wider practice. Trainees using this curriculum will be able to develop and apply innovative approaches to teaching and research. They will be required to ensure that they are up to date in their practice, and that they promote and implement research and evidence-based medicine for the benefit of patients. They will be committed to the highest standards of care and of ethical and professional behavior both within their specialty, and within the medical profession as a whole

Learning Objectives

On completion of training, the trainee will be able to achieve following aptitudes.

- Emergency resident is expected to demonstrate knowledge, clinical and technical skills and decision-making capabilities pertinent to the management of various emergency conditions
- develop a systemic approach to the assessment and treatment of the acutely ill/injured patient
- develop appropriate triage skills
- Apply knowledge of the clinical, socio-behavioral and fundamental biomedical sciences relevant to the Emergency rotation.
- Establish and maintain clinical knowledge, skills and attitudes appropriate to the Emergency rotation
- Apply knowledge of the clinical, socio-behavioral and fundamental biomedical sciences relevant to the Emergency rotation.

The resident in Emergency Medicine is required to attain sufficient knowledge as follows:

Cardiovascular Emergencies Cardiac arrest, Arrhythmias, Pulmonary edema, Myocardial infarction, Hypertensive crisis , Cardiogenic shock , Vascular emergencies, including: ♣ Ruptured abdominal aortic aneurysm ♣ Acute arterial occlusion with ischemia ♣ Vascular trauma ♣ Acute venous problems, Cardiac tamponade , Myocardial injury/myocarditis

Respiratory Emergencies Airway problems /management Asthma/bronchospasm/ status asthmaticus, Pulmonary embolism, Respiratory failure, Pneumonia, Pleural effusion, Pneumothorax/hemothorax

Neurologic Emergencies Coma, Seizure disorders, Increased intracranial pressure and its manifestations

Gastrointestinal Emergencies Acute abdomen, Gastrointestinal bleeding, Acute enteritis/colitis , Hepatobiliary emergencies, including: ♣ Acute jaundice ♣ Acute hepatitis ♣ Cholangitis ♣ Fulminant hepatic failure

Endocrine Emergencies Diabetic emergencies, including: ♣ Hyperosmolar coma ♣ Ketoacidosis, Hypoglycemia, Adrenal crisis , Hypercalcemia/hypocalcemia

Trauma/Thermal Injuries Initial assessment/management of the trauma patient, Acute wound care, Hypothermia, Hyperthermia syndromes, Burns

Allergies/Anaphylaxis, Initial assessment/management

Sepsis/septic shock

Initial assessment/management Psychiatric Emergencies Delirium, Overdose, Acute situational reaction, Acute depression

Pre-Hospital Care Principles of triage, Disaster planning

Perform a complete and appropriate assessment of the patient with an emergency condition Elicit a history that is relevant, concise and accurate ,Perform a focused physical examination that is relevant and accurate, Select medically appropriate investigations in a resource-effective and ethical manner, Demonstrate effective clinical problem solving and judgment to address emergency problems, including interpreting available data and integrating information to generate differential diagnoses and management plans

Use therapeutic interventions effectively Implement an effective and prioritized management plan for the emergency patient, demonstrate effective, appropriate and timely application of therapeutic interventions relevant to the Emergency rotation, ensure appropriate informed consent is obtained for therapies

Demonstrate proficient and appropriate use of procedural skills Demonstrate effective, appropriate and timely performance of diagnostic procedures relevant to the Emergency rotation, demonstrate

effective, appropriate and timely performance of therapeutic procedures relevant to the Emergency rotation, ensure appropriate informed consent is obtained for procedures, Compile and maintain an accurate and complete electronic data base of all procedures performed during the Emergency rotation

Seek appropriate consultation from other health professionals Demonstrate insight into his/her own limitations by self-assessment, demonstrate effective, appropriate and timely consultation of another health professional as needed for optimal care of the emergency patient

Skill

Having completed the Emergency rotation, the resident will be able to demonstrate knowledge and technical competence in performing the following procedures:

♣ Arterial puncture ♣ Venipuncture ♣ Venous cut down ♣ Central venous catheter insertion ♣ Endotracheal intubation ♣ Urinary catheter insertion ♣ Nasogastric/orogastric tube insertion ♣ Suture of laceration/initial wound care techniques ♣ Paracentesis/peritoneal lavage ♣ Lumbar puncture ♣ Fracture stabilization techniques ♣ Thoracentesis ♣ Chest tube insertion ♣ FAST (optional) • Seek appropriate consultation from other health professionals ♣ Demonstrate insight into his/her own limitations by self-assessment ♣ Demonstrate effective, appropriate and timely consultation of another health professional as needed for optimal care of the emergency patient

Attitude

- Demonstrate a professional and ethical approach to research based on the four principles of ethics Autonomy, Beneficence, Justice and Integrity and malfeasance.
- Demonstrate a professional and empathetic attitude towards members of the emergency patients specially the weak and vulnerable.
- Demonstrate a professional attitude to all the members of the team.
- Demonstrate full and clear understanding of equality and diversity legislation as it applies to the workplace and to professional in Emergency department.



ENTRY CRITERIA



Eligibility to apply for Emergency Medicine

- Candidate must possess MBBS or equivalent degree and one-year house job from PMDC recognized Institutions.
- Permanent valid registration with PMC.
- Declared successful in entry test Part-I for Shaheed Zulfiqar Ali Bhutto Medical University, Islamabad.
- In case of foreign candidate, valid registration with Medical Council of their country of origin must be produced.

Required Documents

Attested photocopies of the following documents must be attached with application form:

- Computerized National Identity Card (CNIC)
- Domicile certificate
- Matric/O Level, FSc/A Level, Certificates or equivalent
- MBBS degree with detail marks certificates of all professional
- MBBS Attempts certificates of all professional
- NEB pass certificate (for foreign graduates)
- House Job certificates
- PMDC valid permanent registration certificate
- Entry Test Part-I passing certificate
- Experience Certificates (if any)
- Migration Certificate, if applicable (To be produced at the time of admission)

Admission Procedure

- Details of admission procedure is available on university website at <http://www.szabmu.edu.pk/admission/postgraduate-admission>



CONTENT OF LEARNING



TEACHING MODULES CORE COMPETENCIES LEARNING OBJECTIVES & LEVELS OF PRACTICE

Introduction

The core competencies described are a reminder to trainees, and those Faculty members involved in the assessment of trainees, that these are the competencies to be assessed in all areas of the curriculum. They can also be utilized by the Examination Committee in domains of assessment for blueprinting to various current and future assessment processes.

The categories of learning objectives that have been allocated to each topic in the curriculum describe in broad terms what should be learnt, and therefore what should be assessed; for topics that have been assigned this category. To some extent, this also provides a framework for how trainees might organize their thoughts or notes when studying the topics in a given category.

Levels of practice have been introduced for each topic allocated a learning objective. This should focus the trainee to the topic that have been allocated expert and high levels of practice.

It is intended that these areas will be examined and assessed more frequently. A trainee will be expected to have a greater degree of knowledge and skill in the areas marked as expert. If these topics are assessed in an examination, they may be examined to a greater depth.

The topics marked as general are still of importance and may be assessed. However, they would not be examined as frequently and, if examined, the depth of knowledge required to pass will not be as great.

It is also realized that the level of practice allocated to certain topics could be debated. Arriving at the final level has been a majority consensus process.

The Examination Committee will be cognizant of these level of practices when setting examinations and examining. However, trainees coming up to their examinations would be well advised to read the curriculum as a guide to where they might focus.

It is the intention that this curriculum will contribute to the assessment process being transparent and welcomes feedback from any trainee or Faculty member.



CLINICAL SYLLABUS

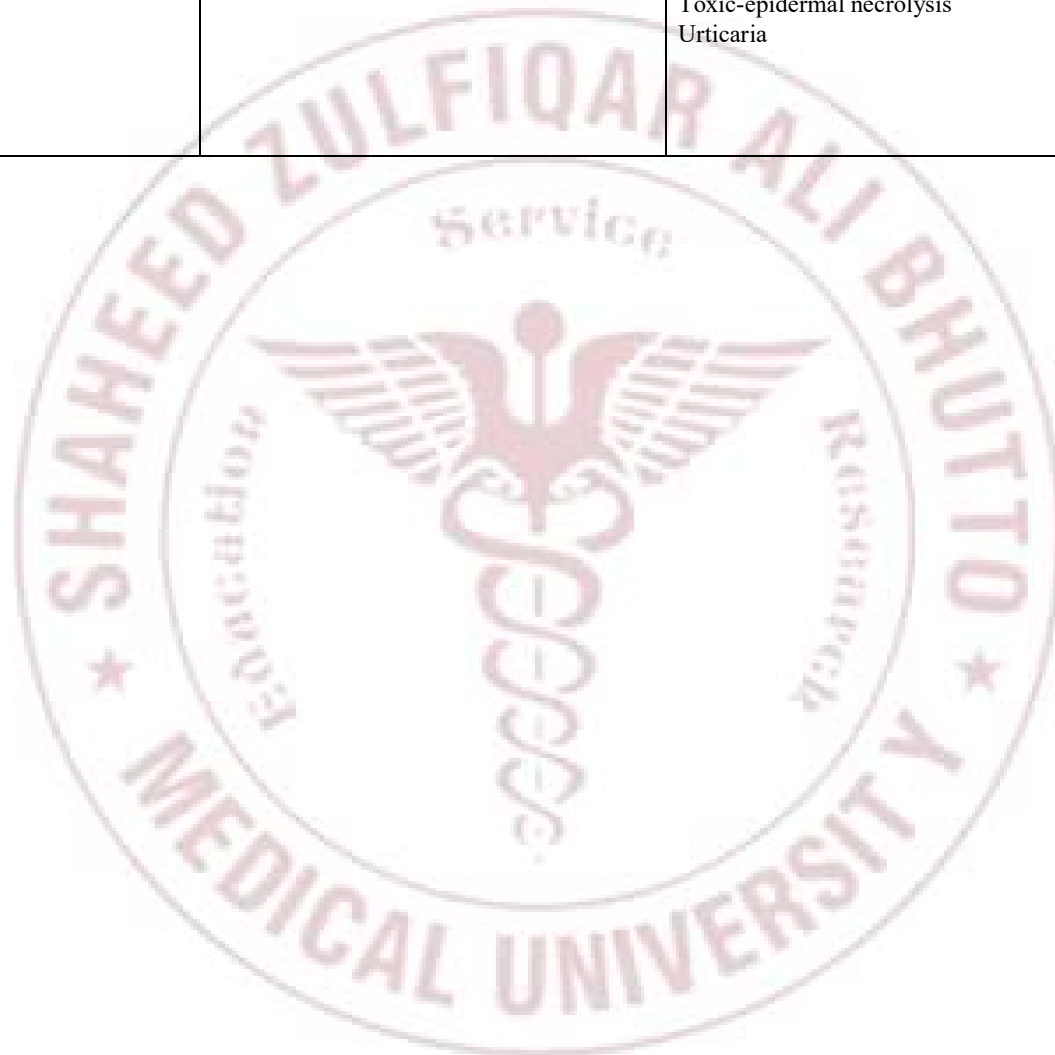
CLINICAL SYLLABUS

Key: *Paediatric specific presentations and conditions*

System/ specialty	Clinical presentations	Conditions/ issues
Resus	Acute airway obstruction Anaphylaxis/Anaphylactoid reaction Cardiorespiratory arrest Major Trauma Respiratory failure Sepsis Shock Unconsciousness	Choking Stridor Organ donation <i>BRUE</i> <i>SUDIC Protocol</i>
Allergy	Acute allergy Anaphylactoid reactions Angioedema Urticaria	Drug allergy
Cardiology	Chest pain Breathlessness Palpitations Transient Loss of Consciousness	Acute Coronary Syndromes Myocardial infarction Arrhythmias Cardiac failure Cardiac tamponade Congenital heart disease Diseases of the arteries, including aortic dissection Diseases of myocardium Hypertensive emergencies Pacemaker function & failure Pericardial disease Sudden Cardiac Death Valvular heart disease



<p>Dermatology</p>	<p>Dermatological manifestations of systemic illness Rashes</p>	<p><i>Common childhood exanthems</i> Cutaneous drug reactions Eczema Erythroderma Infections of skin and soft tissues Necrotising Fasciitis Pressure ulcers Purpuric rash including <i>Henoch Scholein Purpura</i> Stevens-Johnson syndrome Toxic-epidermal necrolysis Urticaria</p>
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<p>Ear, nose and throat</p>	<p>ENT foreign bodies ENT injuries Epistaxis Hearing loss Painful ear Sore throat Vertigo</p>	<p><i>Croup</i> Epiglottitis Glandular Fever LMN facial nerve palsy Meniere’s disease Nasal fractures Otitis externa Otitis media Pharyngitis <i>Post-tonsillectomy bleed</i> Tonsillitis Tracheostomy emergencies Quinsy Salivary gland disease Vestibular neuritis</p>
<p>Elderly care</p>	<p>Delirium Deterioration in mobility Falls Fragility fractures Frailty Hypothermia Incontinence Increasing care needs Memory loss Unsteadiness / balancedisturbance</p>	<p>Comprehensive geriatricassessment Acute confusion Ceiling of care & End of lifecare Dementia – cognitive impairment Fragility fractures Mobility Osteoporosis Pharmacology considerations in the older patient</p>
<p>Endocrinology</p>	<p>Addisonian Crisis Hyperglycaemia Hypoglycaemia</p>	<p>Adrenal disorders Diabetic ketoacidosis Diabetes mellitus & complications including diabetic foot Hyperosmolar hyperglycaemic state Pituitary disorders Thyroid emergencies</p>

<p>Environmental emergencies:</p>		<p>Heat stroke and heat exhaustion Drug-related hyperthermias Hypothermia and frostbite Decompression sickness Near-drowning Radiation exposure and safety Industrial chemical incidents Bites and envenomation typical or the UK High altitude emergencies - cerebral and pulmonary oedema Acid attacks</p>
<p>Gastroenterology and hepatology</p>	<p>Abdominal and loin pain Abdominal swelling or mass Ascites Constipation Diarrhoea Haematemesis and melaena Jaundice Anal pain and rectal bleeding Nausea and vomiting Dysphagia</p>	<p>Alcohol related liver disease including withdrawal Decompensated cirrhosis <i>Dehydration in children</i> Functional bowel disorders Gastrointestinal infections Hepatitis Inflammatory bowel disease Peptic ulcer disease <i>Pyloric stenosis</i></p>
<p>Haematology</p>	<p>Anaemia Bruising and spontaneous bleeding Massive haemorrhage</p>	<p>Anti-coagulant reversal DIC Haemophilia ITP Leukaemia Lymphoma Marrow failure Sickle cell disease/crisis Transfusion reactions</p>
<p>Infectious diseases</p>	<p>Fever Pyrexia in travellers Sepsis Needlestick injury/exposure to blood borne viruses</p>	<p>Influenza Infection in immunocompromised patients Infestations <i>Kawasaki Disease</i> Notifiable diseases Pyrexia of Unknown origin – different age groups Malaria HIV infection</p>

<p>Maxillofacial/dental</p>	<p>Dental pain Facial swelling Avulsed or fractured teeth Facial bone injury</p>	<p>Dental abscess Facial wounds Post extraction complications TMJ dislocation</p>
<p>Mental Health</p>	<p>Aggressive or disturbed behaviour Anxiety/Panic Physical symptoms unexplained by organic disease Self-harm Refusal of treatment</p>	<p>Alcohol and substance misuse Depression Eating disorders Personality disorders Acute Psychosis including bipolar, schizophrenia Somatic symptom disorders MHC7. Stress disorders MHC8. Suicide</p>
<p>Musculoskeletal (non-traumatic)</p>	<p>Acute back pain Limb pain and swelling Neck pain Joint swelling Acute hot swollen joint</p>	<p>Cauda equina syndrome Crystal related arthropathies Septic arthritis Limb pain and swelling: bursitis & tendonitis in the upper and lower limb including ruptured biceps, Achilles tendonitis, plantar fasciitis, metatarsalgia, carpal tunnel and other entrapment neuropathies plus sinister causes bone tumour, stress fracture Spinal pain and radiculopathy Risks of rheumatological disease modifying drugs Spinal infections <i>Torticollis</i> <i>Limping child</i> <i>Osteochondritis</i></p>
<p><i>Neonatal Emergencies</i></p>		<p><i>Delivery and resuscitation of the newborn</i> <i>Neonatal sepsis</i> <i>Cyanotic/ non-cyanotic congenital heart disease</i> <i>Jaundice</i> <i>Feeding patterns</i></p>

<p>Nephrology</p>	<p>Electrolyte disorders Oliguria</p>	<p>Acute kidney injury Drugs and the kidney Electrolyte disorders Fluid balance disorders Renal replacement therapy</p>
<p>Neurology</p>	<p>Acute Confusion Headache Seizures/status epilepticus Speech disturbance Hemiparesis/hemiplegia Gait abnormality Visual disturbance Weakness/paralysis Dizziness and vertigo</p>	<p>Botulism Cerebral venous sinus thrombosis <i>Febrile Convulsion</i> Functional illness Guillain-Barre Meningitis and encephalitis Multiple sclerosis Myasthenia gravis Parkinson's disease and other movement disorders, epileptic and non-epileptic Peripheral neuropathy (acute) Subarachnoid haemorrhage Stroke & TIA Tetanus Tumours involving the brain and spinal cord VP Shunts Wernicke's Encephalopathy</p>

<p>Obstetrics & Gynaecology</p>	<p>Pelvic pain Vaginal bleeding Pregnancy Genital injury/Assault Vaginal discharge Foreign bodies Patient in labour</p>	<p>Ante-partum haemorrhage Bleeding in early pregnancy Exposure to infections during pregnancy egchickenpox Ectopic pregnancy Genital injury /Female Genital Mutilation HELLP Heavy menstrualbleeding Hyperemesis Gravidaram Maternal Collapse Post-partum haemorrhage Pre- eclampsia/ eclampsia Pelvic infection Post menopausal bleeding Prescribing in pregnancy Rhesus D prophylaxis Sepsis in and following pregnancy Thrombosis during andfollowing pregnancy Trauma in pregnancyOHSS</p>
<p>Oncological Emergencies</p>	<p>Acute presentations of undiagnosed cancer that may present to the ED (including weight loss, dysphagia, pain etc)</p>	<p>Complications related to local tumour progression e.g. acute cord compression, upperairway obstruction, pericardial and pleural effusions, SVC compression syndrome, raised intracranial pressure Complications relatingto cancer treatment including - neutropenicsepsis, anaemia and thrombocytopenia and immunotherapy Biochemical complications of malignancy- hypercalcaemia, SIADH,adrenocortical insufficiency</p>

<p>Ophthalmology</p>	<p>Diplopia Eye trauma including foreignbodies Painful eye Red eye Sudden visual loss</p>	<p>Acute glaucoma Cranial nerve palsy Orbital & per-orbital preseptal or peri-orbital cellulitis Ophthalmia neonatorum Inflammatory eyedisease Temporal arteritis</p>
<p>Pain & sedation</p>		<p>Analgesics Non-pharmacologicalmethods of pain management Pain assessmentSedation</p>
<p>Palliative and end of life care</p>	<p>Advanced malignancy andend stage chronic disease</p>	<p>Advanced care planning Anticipatory medications End stage organ failure Pain management Physical symptoms other than pain Psychosocial concerns including spiritual careand care of the family The dying patient</p>
<p>Pharmacology and poisoning</p>	<p>Medication side effects/interactions Overdose Accidental Poisoning</p>	<p>Overdose of prescriptionand non-prescription medications including legal and non-legal drugs Poisoning – carbon monoxide, cyanide,organo-phosphate Toxidromes Use of antidotes Batteries, household chemicals, poisonousplants</p>
<p>Respiratory</p>	<p>Chest pain Breathlessness Haemoptysis Cough</p>	<p>Asthma Bronchiolitis COPD Foreign body inhalation Pertussis Pleural effusion Pneumonia Pneumothorax Pulmonary Aspiration Pulmonary embolus Viral induced wheeze in children</p>

Sexual health	Genital discharge Genital lesions Emergency contraception Post-exposure prophylaxis	Sexual assault Sexually transmitted infections
Surgical emergencies	Abdominal pain Abdominal swelling/mass Constipation Diarrhoea GI bleeding Anal/rectal pain Nausea/vomiting	Ano-rectal abscesses Appendicitis Biliary colic Bowel obstruction Breast abscess Cholangitis Cholecystitis Diverticular disease Haemorrhoid disease Hernias <i>Intussusception</i> Ischaemic Bowel Lower gastrointestinal and rectal bleeding Pancreatitis Viscus perforation Volvulus
Trauma	Head injury Spinal injury Chest and lung injury Major vascular injury Abdominal injury Pelvic injury Limb and joint injury Burns Inhalational injury Wounds	Compartment syndrome Limb and joint injury including bony, musculo-tendinous and complications Electrical burns Salter- Harris classification Infection - paronychia, pulp space, flexor sheath nailbed, amputations etc. Animal bites including human Injury to bladder, urethra, testes or penis
Urology	Dysuria Injury to bladder, urethra, testes or penis Urinary retention Testicular pain/swelling Loin pain Haematuria	Epididymo-orchitis Renal stone disease Phimosis/Paraphimosis Priapism Testicular torsion Prostatitis UTI/Pyelonephritis
Vascular		Acute limb ischaemia Aortic aneurysmal disease DVT
Other clinical presentations		Major Incident Management PHEM Safeguarding in adults Domestic abuse



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<p><i>Safeguarding & Psycho-social emergencies in children</i></p>	<p><i>Self-harm in children and adolescents Concerning presentation</i></p>	<p><i>Conditions presenting as a symptom of NAI or psychological distress, e.g. deliberate self-harm, aggression or risk-taking behaviour, recurrent abdominal pain, headaches or faints, recurrent attendances in young children.</i></p> <p><i>Roles of other systems in protecting children, e.g. Social Services, the Child Protection Plan, Police Child Protection and Domestic Violence Units, SureStart, Childline, Health Visitors, School Nurses</i></p> <p><i>Mental illness in childhood including depression, anxiety, OCD, bipolar and schizophrenia</i></p> <p><i>Sexual abuse</i></p>
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ASSESSMENT

Assessment of trainees will cover the cognitive, psychomotor and affective domains. It will take two forms.

- Formative Assessment
- Summative Assessment

Formative Assessment

It is the continuous assessment of progress and competence. It will be conducted through workplace-based assessment throughout the training. Assessment will be undertaken by a range of assessors based on preventive clinic settings and field based interventions and will cover a range of procedures appropriate to the stage of training.

Summative Assessment

Summative assessment will be held twice

- Mid Term Assessment (MTA) Examination (After 2 years of training with synopsis submission)
- Final/Exit Examination (At the end of 4th year)

The level of performance required for passing the exam will depend on the knowledge and skills necessary for acceptable performance and will not be adjusted to regulate the number or proportion of persons passing the examination. The pass point will be determined by careful analysis and judgment of acceptable performance.

Record of Clinical Cases

The trainees will be required to keep a record of the allocated cases and preventive clinical work in a logbook. It will be the responsibility of trainee to keep the logbook up to date with the signature of the faculty certifying the work.



TABLE OF SPECIFICATION FOR EXAMINATIONS



SHAHEED ZULFIQAR ALI BHUTTO MEDICAL UNIVERSITY

Shaheed Zulfiqar Ali Bhutto Medical University Summative Case Based Discussion CBD

Name of trainee:		Year of Training:	
Assessor:		Registration No:	
Grade of assessor:		Date	/ /
Case discussed (brief description)		Diagnosis	

Please TICK to indicate the standard of the trainee's performance in each area	Not observed	Further core learning needed	Demonstrates good practice		Demonstrates excellent practice
			Must address learning points highlighted below	Should address learning points highlighted below	
Record keeping					
Review of investigations					
Diagnosis					
Treatment					
Planning for subsequent care (in patient or discharged patients)					
Clinical reasoning					
Patient safety issues					
Overall clinical care					



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For summative CBD		Unsatisfactory	Satisfactory
Things done particularly well			
Learning points			
Action points			
Assessor Signature:		Trainee Signature:	





SHAHEED ZULFIQAR ALI BHUTTO MEDICAL UNIVERSITY

Shaheed Zulfiqar Ali Bhutto Medical University Formative Case Based Discussion CBD

Name of trainee:		Year of Training:	
Assessor:		Registration No:	
Grade of assessor:		Date	/ /
Case discussed (brief description)		Diagnosis	

Please TICK to indicate the standard of the trainee's performance in each area	Not observed	Further core learning needed	Demonstrates good practice		Demonstrates excellent practice
			Must address learning points highlighted below	Should address learning points highlighted below	
Record keeping					
Review of investigations					
Diagnosis					
Treatment					
Planning for subsequent care (in patient or discharged patients)					
Clinical reasoning					
Patient safety issues					
Overall clinical care					
Things done particularly well					
Learning points					
Action points					
Assessor Signature:			Trainee Signature:		



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Shaheed Zulfiqar Ali Bhutto Medical University Summative Mini-Clinical Evaluation Exercise - Mini-CEX

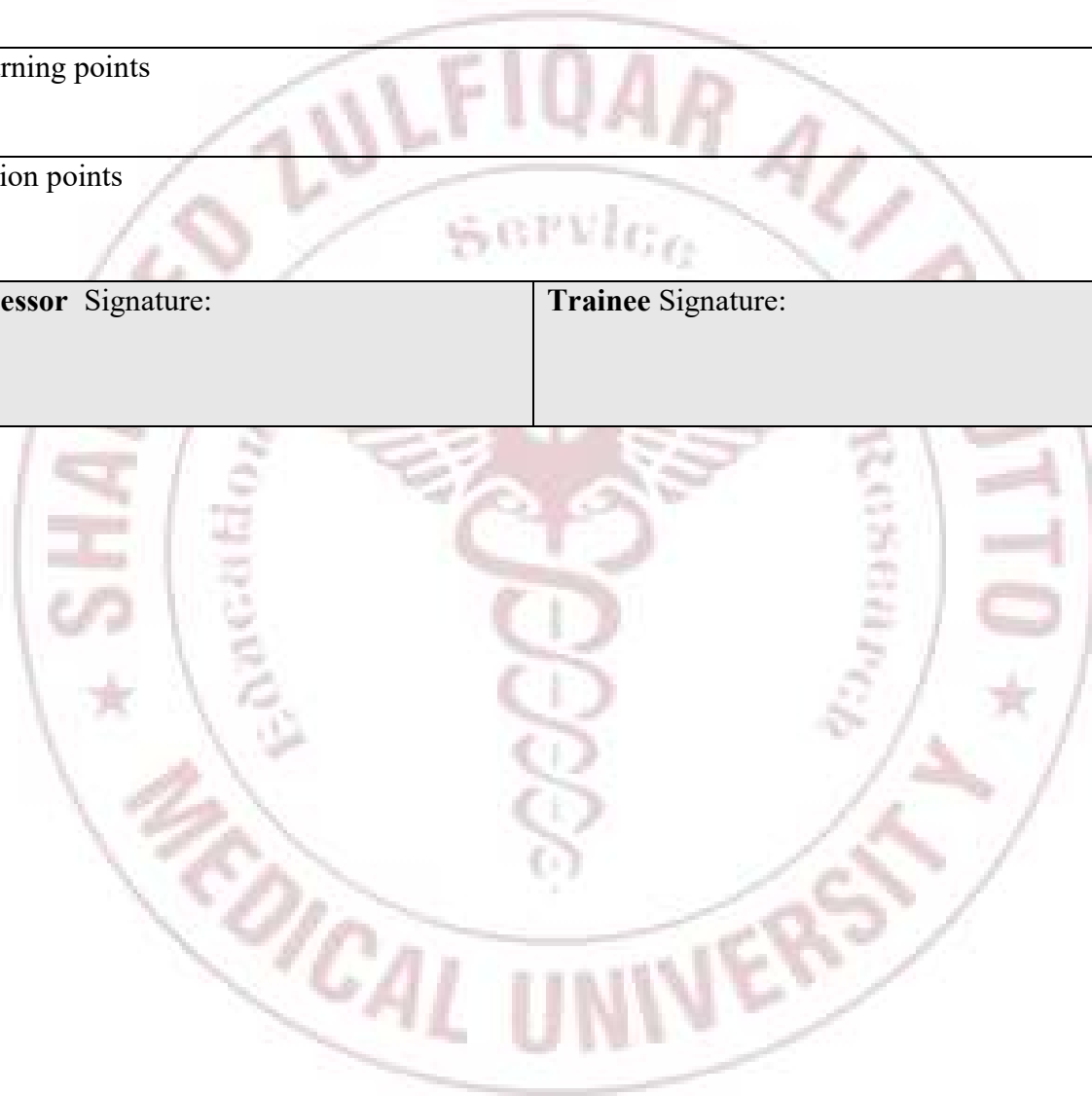
Name of trainee:		Year of Training:	
Assessor:		Registration No:	
Grade of assessor:		Date	/ /
Case discussed (brief description)		Diagnosis	
Focus of assessment –			
History	Examination	Diagnosis	Management
			Communication

Please TICK to indicate the standard of the trainee's performance in each area	Not observed	Further core learning needed	Demonstrates good practice		Demonstrates excellent practice
			Must address learning points highlighted below	Should address learning points highlighted below	
Initial approach					
History and information gathering					
Examination					
Investigation					
Clinical decision making and judgment					
Communication with patient, relatives, staff					
Overall plan					



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Professionalism					
For summative Mini-CEX				Unsuccessful	Successful
Things done particularly well					
Learning points					
Action points					
Assessor Signature:			Trainee Signature:		





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Shaheed Zulfiqar Ali Bhutto Medical University Formative Mini-Clinical Evaluation Exercise - Mini-CEX

Name of trainee:		Year of Training:	
Assessor:		Registration No:	
Grade of assessor:		Date	/ /
Case discussed (brief description)		Diagnosis	
Focus of assessment –			
History	Examination	Diagnosis	Management
			Communication

Please TICK to indicate the standard of the trainee's performance in each area	Not observed	Further core learning needed	Demonstrates good practice		Demonstrates excellent practice
			Must address learning points highlighted below	Should address learning points highlighted below	
Initial approach					
History and information gathering					
Examination					
Investigation					
Clinical decision making and judgment					
Communication with patient, relatives, staff					
Overall plan					
Professionalism					
Things done particularly well					



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Learning points	
Action points	
Assessor Signature:	Trainee Signature:





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Shaheed Zulfiqar Ali Bhutto Medical University Direct Observation of procedural Skills - DOPs

Name of trainee:		Year of Training:	
Assessor:		Registration No:	
Grade of assessor:		Date	/ /
Procedure observed (including indications)			

Please TICK to indicate the standard of the trainee's performance in each area	Not observed	Further core learning needed	Demonstrates good practice		Demonstrates excellent practice
			Must address learning points highlighted below	Should address learning points highlighted below	
Indication for procedure discussed with assessor					
Obtaining informed consent					
Appropriate preparation including monitoring, analgesia and sedation					
Technical skills and aseptic technique					
Situation awareness and clinical judgement					
Safety, including prevention and management of complications					
Care /investigations immediately post procedure					
Professionalism, communication and					



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consideration for patient, relatives and staff					
Documentation in the notes					
Completed task appropriately					
Things done particularly well					
Learning points					
Action points					
Assessor Signature:			Trainee Signature:		





THESIS COMPONENT

RESEARCH/ THESIS WRITING

Total of one year will be allocated for work on a research project with thesis writing. Project must be completed, and thesis be submitted before the end of training. Research can be done as one block in 4th year of training, or it can be stretched over four years of training in the form of regular periodic rotations during the course as long as total research time is equivalent to one calendar year.

Research Experience

The active research component program must ensure meaningful, supervised research experience with appropriate protected time for each resident while maintaining the essential clinical experience. Recent productivity by the program faculty and by the residents will be required, including publications in peer-reviewed journals. Residents must learn the design and interpretation of research studies, responsible use of informed consent, and research methodology and interpretation of data. The program must provide instruction in the critical assessment of new therapies and of the medical literature. Residents should be advised and supervised by qualified staff members in the conduct of research.

Clinical Research

Each resident will participate in at least one clinical research study to become familiar with:

1. Research design
2. Research involving human subjects including informed consent and operations of the Institutional Review Board and ethics of human experimentation
3. Data collection and data analysis
4. Research ethics and honesty
5. Peer review process

This usually is done during the consultation and outpatient clinic rotations.

Case Studies or Literature Reviews

Each resident will write and submit for publication in a peer-reviewed journal, a case study or literature review on a topic of his/her choice.

Laboratory Research

Bench Research



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Participation in laboratory research is at the option of the resident and may be arranged through any faculty member of the Division. When appropriate, the research may be done at other institutions.

Research involving animals

Each resident participating in research involving animals is required to:

1. Become familiar with the pertinent Rules and Regulations of the University of Health Sciences Lahore i.e., those relating to "Health and Medical Surveillance Program for Laboratory Animal Care Personnel" and "Care and Use of Vertebrate Animals as Subjects in Research and Teaching".
2. Read the "Guide for the Care and Use of Laboratory Animals".
3. View the videotape of the symposium on Humane Animal Care.

Research involving Radioactivity

Each resident participating in research involving radioactive materials is required to:

1. Attend a Radiation Review session
2. Work with an Authorized User and receive appropriate instruction from him/her.



LOGBOOK

The residents must maintain a logbook and get it signed regularly by the supervisor. A complete and duly certified logbook should be part of the requirement to sit for MD examination. Logbook should include adequate number of diagnostic and therapeutic procedures observed and performed, the indications for the procedure, any complications and the interpretation of the results, routine and emergency management of patients, case presentations in CPCs, journal club meetings and literature review.

Proposed Format of Logbook is as follows:

Candidate's Name: -----

Roll No. _____ Supervisor -----

The procedures shall be entered in the logbook as per format

Procedures Performed

Sr.#	Date	Name of Patient, Age, Sex & Admission No.	Diagnosis	Procedure Performed	Supervisor's Signature
1					
2					
3					
4					



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Emergencies Handled

Sr. #	Date	Name of Patient, Age, Sex & Admission No.	Diagnosis	Procedure/Management	Supervisor's Signature
1					
2					
3					
4					

Case Presented

Sr.#	Date	Name of Patient, Age, Sex & Admission No.	Case Presented	Supervisor's Signature
1				
2				
3				
4				



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PROGRAM EVALUATION



PROGRAM EVALUATION

The program director will continue to ensure that the program is fit for purpose in that it provides the trainee with the appropriate knowledge, skills, attitudes and competencies required to meet the requirements of a specialist.

Program evaluation will be carried out after every four years according to the CIPP model of evaluation. Any suggested updates will only be made following appropriate consultation with stakeholders, including trainees and lay members.

Feedback forms are attached as “Annexure A”





ANNEXURE A

Supervisor Evaluation Form

Date: _____ Supervisor's Name: _____

Your Name: _____ Signature: _____

Evaluations of supervisors by trainees are an important process for providing supervisors with an assessment of the quality of their work. Annual supervisor assessments can be used to compliment a supervisor for doing a good job. Annual assessments can also identify areas for improvement. Evaluations can strengthen communications between supervisors and trainees.

Trainees have three options for evaluating supervisors:

- 1) Completing the Evaluation of Supervisor form.
- 2) Writing a signed memo evaluating the supervisor.
- 3) Meeting with the supervisor's department head.

Evaluations received by the deadline (January 15) will be incorporated into the annual review of the supervisor. Forms and/or signed memos should be sent to the Human Resources department.

(E=Excellent, G=Good, S=Satisfactory, N=Needs Work, U=Unsatisfactory, Ø=No Opinion)

Performs Supervisory Functions

Provides on-going positive and negative feedback	E	G	S	N	U	Ø
Makes expectations known	E	G	S	N	U	Ø
Is tactful and considerate	E	G	S	N	U	Ø
Promotes teamwork and good working relationships	E	G	S	N	U	Ø
Recognizes and addresses concerns in a timely manner	E	G	S	N	U	Ø
Delegates authority appropriately	E	G	S	N	U	Ø
Provides training of new employees	E	G	S	N	U	Ø
Provides direction of work	E	G	S	N	U	Ø



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Communicates openly and honestly with peers, staff and administration	E	G	S	N	U	Ø
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Comments: _____

Develops Innovative Procedures

Is receptive to new ideas	E	G	S	N	U	Ø
Is receptive to questions	E	G	S	N	U	Ø
Encourages initiative and innovation	E	G	S	N	U	Ø

Comments: _____

III. Maintains a positive work environment

Recognizes contributions	E	G	S	N	U	Ø
Motivates workers	E	G	S	N	U	Ø
Provides relaxed yet efficient work atmosphere	E	G	S	N	U	Ø
Encourages staff development	E	G	S	N	U	Ø



Comments: _____

Knows the Operations of the Department

Understands employee workload	E	G	S	N	U	Ø
Is alert to potential problems	E	G	S	N	U	Ø
Keeps staff informed about department and university developments	E	G	S	N	U	Ø

Comments: _____

Work Habits

Acknowledges own limitations and mistakes	E	G	S	N	U	Ø
Maintains a positive work attitude	E	G	S	N	U	Ø
Uses time efficiently and effectively	E	G	S	N	U	Ø
Demonstrates a good work ethic	E	G	S	N	U	Ø



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Comments: _____

Please use the bottom and back of this sheet as space for expanding on any comments above or to make any additional comments.





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Program Evaluation Form

Please use the following scale to indicate your response to the statements below:

SA = strongly agree

A = agree

N = neither agree/disagree

D = disagree

SD = strongly disagree

The information was presented effectively	SA	A	N	D	SD
The information presented was practical	SA	A	N	D	SD
The program provided a good working knowledge of the subject matter presented	SA	A	N	D	SD
The program has allowed me to acquire practical skills and knowledge to manage my business more effectively and efficiently	SA	A	N	D	SD
The program attended was sufficient for my purpose	SA	A	N	D	SD