

RAWALPINDI MEDICAL UNIVERSITY



UNIVERSITY RESIDENCY PROGRAM 2020 ***INFECTIOUS DISEASES***

ROTATION LOGBOOK

PREFACE



The horizons of Medical Education are widening & there has been a steady rise of global interest in Post Graduate Medical Education, an increased awareness of the necessity for experience in education skills for all healthcare professionals and the need for some formal recognition of postgraduate training in Internal Medicine.

We are seeing a rise in the uptake of places on postgraduate courses in medical education, more frequent issues of medical education journals and the further development of e-journals and other new online resources. There is therefore a need to provide active support in Post Graduate Medical Education for a larger, national group of colleagues in all specialties and at all stages of their personal professional development. If we were to formulate a statement of intent to explain the purpose of this log book, we might simply say that our aim is to help clinical colleagues to teach and to help students to learn in a better and advanced way. This book is a state of the art log book with representation of all activities of the MD Internal Medicine program at RMU. A summary of the curriculum is incorporated in the logbook for convenience of supervisors and residents. MD curriculum is based on six Core Competencies of ACGME (Accreditation Council for Graduate Medical Education) including Patient Care, Medical Knowledge, System Based Practice, Practice Based Learning, Professionalism, Interpersonal and Communication Skills. A perfect monitoring system of a training program including monitoring of teaching and learning strategies, assessment and Research Activities cannot be denied so we at RMU have incorporated evaluation by Quality Assurance Cell and its comments in the logbook in addition to evaluation by University Training Monitoring Cell (URTMC). Reflection of the supervisor in each and every section of the logbook has been made sure to ensure transparency in the training program. The mission of Rawalpindi Medical University is to improve the health of the communities and we serve through education, biomedical research and health care. As an integral part of this mission, importance of research culture and establishment of a comprehensive research structure and research curriculum for the residents has been formulated and a separate journal for research publications of residents is available.

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ENROLMENT DETAILS

Program of Admission _____

Session _____

Registration / Training Number _____

Name of Candidate _____

Father's Name _____

Date of Birth ____/____/____

CNIC No. _____

Present Address _____

Permanent Address _____

E-mail Address _____

Cell Phone _____

Date of Start of Training _____

Date of Completion of Training _____

Name of Supervisor _____

Designation of Supervisor _____

Qualification of Supervisor _____

Title of department / Unit _____

INTRODUCTION

It is a structured book in which certain types of educational activities and patient related information is recorded, usually by hand. Logbooks are used all over the world from undergraduate to postgraduate training, in human, veterinary and dental medicine, nursing schools and pharmacy, either in paper or electronic format .

Logbooks provide a clear setting of learning objectives and give trainees and clinical teachers a quick overview of the requirements of training and an idea of the learning progress. Logbooks are especially useful if different sites are involved in the training to set a (minimum) standard of training. Logbooks assist supervisors and trainees to see at one glance which learning objectives have not yet been accomplished and to set a learning plan. The analysis of logbooks can reveal weak points of training and can evaluate whether trainees have fulfilled the minimum requirements of training.

Logbooks facilitate communication between the trainee and clinical teacher. Logbooks help to structure and standardize learning in clinical settings. In contrast to portfolios, which focus on students' documentation and self-reflection of their learning activities, logbooks set clear learning objectives and help to structure the learning process in clinical settings and to ease communication between trainee and clinical teacher. To implement logbooks in clinical training successfully, logbooks have to be an integrated part of the curriculum and the daily routine on the ward. Continuous measures of quality management are necessary.

Reference

BraunsKS, Narciss E, Schneyinck C, Böhme K, Brüstle P, Holzmann UM, et al. Twelve tips for successfully implementing logbooks in clinical training. Med Teach. 2016 Jun 2; 38(6): 564–569.

MINIMUM LOG BOOK ENTERIES PER MONTH IN GENERAL

(This minimum number is being provided for uniformity of the training and convenience for monitoring of the resident's performance by Quality Assurance Cell & University Research Training & Monitoring Cell of RMU but resident is encouraged to show performance above this minimum required number)

SR.NO	ENTRY	Minimum cases /Time duration
01	Case presentation	01 per month
02	Topic presentation	01 per month
03	Journal club	01 per month
04	Bed side teaching	10 per month
05	Large group teaching	06 per month
06	Emergency cases	10 per month
07	OPD	50 per month
08	Indoor (patients allotted)	8 per month plus participation in daily Morning & Evening rounds
09	Directly observed procedures	6-10 per month
10	CPC	02 per month
11	Mortality & Morbidity meetings	02 per month

MISSION STATEMENT

The mission of MD Infectious Diseases Program of Rawalpindi Medical University is:

1. To provide exemplary medical care, treating all patients who come before us with uncompromising dedication and skill.
2. To set and pursue the highest goals for ourselves as we learn the science, craft, and art of Medicine.
3. To passionately teach our junior colleagues and students as we have been taught by those who preceded us.
4. To treat our colleagues and hospital staff with kindness, respect, generosity of spirit, and patience.
5. To foster the excellence and well-being of our residency program by generously offering our time, talent, and energy on its behalf.
6. To support and contribute to the research mission of our medical center, nation, and the world by pursuing new knowledge, whether at the bench or bedside.
7. To promote the translation of the latest scientific knowledge to the bedside to improve our understanding of disease pathogenesis and ensure that all patients receive the most scientifically appropriate and up to date care.
8. To promote responsible stewardship of medical resources by wisely selecting diagnostic tests and treatments, recognizing that our individual decisions impact not just our own patients, but patients everywhere.
9. To promote social justice by advocating for equitable health care, without regard to race, gender, sexual orientation, social status, or ability to pay.
10. To extend our talents outside the walls of our hospitals and clinics, to promote the health and well-being of communities, locally, nationally, and internationally.
11. To serve as proud ambassadors for the mission of the Rawalpindi Medical University MD Infectious Diseases Program for the remainder of our professional lives.

CLINICAL COMPETENCIES FOR 1ST, 2ND, 3RD, 4TH and 5th YEAR MD

TRAINEES CLINICAL COMPETENCIES\SKILL\PROCEDURE

The clinical competencies, a specialist must have, are varied and complex. A complete list of the skills necessary for trainees and trainers are given below. The level of competence to be achieved each year is specified according to the key, as follows:

1. Observer status
2. Assistant status
3. Performed under supervision
4. Performed under indirect supervision
5. Performed independently

Note: Levels 4 and 5 for practical purposes are almost synonymous

PROCEDURES	Second Year				
	15Months 18Months				Total Cases
	Level	Cases	Level	Cases	6 Months
	I	s	I	s	
Rotations to be incorporated as and when available with the consent of respected supervisor					
Pleural Aspiration	4	12	4	13	25
Peritoneal Aspiration	4	1	4	1	25
Lumbar puncture	4	1	4	1	15
Nasogastric Intubation	4	1	4	1	50
Urethral catheterization	4	1	4	1	50
Recording and reporting ECG	4	1	4	1	100
Endotracheal Intubation	3	1	3	1	25
Cardio-Pulmonary Resuscitation (CPR)	3	1	3	1	15
Insertion of CVP lines	3	1	3	1	15
Arterial puncture	2	1	2	1	30
Urine Examination	4	1	4	1	2
Liver biopsy	2	1	2	1	2
Pleural biopsy	2	1	2	1	2
Joint aspiration	1	-	1	1	1
Bone marrow aspiration	1	1	1	1	2
Renal biopsy	1	-	1	1	1
Haemodialysis	2	1	2	1	2
Upper G.I. Endoscopy	1	1	1	-	1
Lower G.I. Endoscopy	1	1	1	1	2
Bronchoscopy	1	1	1	-	1
Abdominal Ultrasound	1	1	1	1	2
Chest Intubation	1	1	1	1	2
Pericardiocentesis	1	1	1	1	2

LOG BOOK ENTERIES REQUIREMENT FOR 3RD AND 4TH YEAR MD INFECTIOUS DISEASES TRAINEES

PROCEDURES	THIRD YEAR								
	Level	Cases	Level	Cases	Level	Cases	Level	Cases	Total Cases in Year
Rotations to be incorporated as and when available with the consent of respected supervisor									
Pleural aspiration	4	2	4	2	4	2	4	2	8
Peritoneal aspiration	4	2	4	2	4	2	4	2	8
Lumbar puncture	4	1	4	1	4	1	4	1	4
Nasogastric intubation	4	2	4	2		1	4	1	6
Urethral catheterization	4	2	4	2	4	1	4	1	6
Recording and reporting ECG	4	3	4	3	4	3	4	3	12
Endotracheal intubation	4	1	4	1	4	1	4	1	4
Insertion of CVP lines	4	2	4	2	4	2	4	2	8
Arterial puncture	3	1	3	1	-	-	-	-	2
Liver biopsy	3	1	3	1	-	-	-	-	2
Pleural biopsy	2	1	2	1	-	-	-	-	2
Joint aspiration	3	1	-	-	-	-	-	-	1
Bone marrow aspiration	2	1	-	-	-	-	-	-	1
Renal biopsy	-	-	-	-	2	2	-	-	2
Haemodialysis	2	2	-	-	2	2	-	-	4
Upper G.I. endoscopy	2	1	2	1	2	1	2	1	4

PROCEDURES	FOURTH YEAR				
					Total Cases in Year
	15 Months		18 Months		
	Level	Cases	Level	Cases	
Rotations to be incorporated as and when available with the consent of respected supervisor					
Pleural aspiration	4	2	4	2	4
Peritoneal aspiration	4	2	4	2	4
Lumbar puncture	4	1	4	1	2
Nasogastric intubation	4	10	4	10	20
Urethral catheterization	4	10	4	1	2
Recording and reporting ECG	4	10	4	2	4
Endotracheal intubation	4	1	4	1	2
Insertion of CVP lines	4	4	4	4	8
Arterial puncture	4	1	4	1	2
Liver biopsy	4	1	4	1	2
Pleural biopsy	3	1	3	1	2
Joint aspiration	4	2	4	2	4
Bone marrow aspiration	3	2	3	2	4
Renal biopsy	-	-	-	-	-
Haemodialysis	3	1	3	1	2
Upper G.I. endoscopy	3	2	3	2	4

PROCEDURES	FOURTH YEAR				
	15 Months		18 Months		Total Cases in
	Level	Cases	Level	Cases	Year
Rotations to be incorporated as and when available with the consent of respected supervisor					
Bronchoscopy	2	1	-	-	1
Abdominal ultrasound	2	2	2	2	4
Exercise tolerance test	2	2	3	2	4
Echocardiography	2	2	2	2	4
CAT scan head	2	2	2	2	4
Electroencephalography (EEG)	1	1	-	-	1
Chest intubation	2	1	-	-	1
MRI Brain and Spine	1	1	1	1	2
Doppler ultrasound of limbs and neck	1	1	1	1	2

PROCEDURES		
	Level	Cases
INTENSIVE CARE		
Endotracheal Intubation	4	6
Insertion of CVP line	4	6
Arterial puncture	3,4	4
Mechanical ventilation	3,4	4
Cardio Pulmonary Resuscitation (CPR)	3,4	4
Blood gases interpretation	4	4
CARDIOLOGY		
Thrombolysis in acute MI	4	6
Management of arrhythmias - Drug / Defibrillation	4	4
ECG recordings & reporting	4	6
Exercise tolerance test (ETT)	2,3	2
Echocardiography	1,2	4
Cardio Pulmonary Resuscitation (CPR)	4	2
PULMONOLOGY		
Pleural Aspiration	4	3
Pleural Biopsy	1	1
Chest Intubation	2	2
Bronchoscopy	2	2
Lung function test	2	2

PROCEDURE		
	Level	Cases
ENDOCRINOLOGY		
Interpretation of thyroid function tests/ thyroid isotope scan / thyroid ultrasound /thyroid FNA-C	1,2,3	5+5+5
Interpretation of pituitary function tests /stimulation/suppression testing of pituitary	1,2,3	1+1+1
Interpretation of adrenal function tests /stimulation/suppression testing of adrenals	1,2,3	1+1+1
Evaluation of disorders of Gonadal dysfunction	1,2,3	1+1+1
Disorders of growth and sexual differentiation/development	1	1
(Interpretation of calcium metabolism (calcium and phosphorus lab tests	1,2,3	1+1+1
Interpretation of DEXA scan/MRI pituitary / MRI or CT Adrenals	1	1
Interpretation of glucose lab tests/HbA1c/OGTT for diagnosis of diabetes and its complications	1,2,3	10+10+10
Clinical and laboratory evaluation of patients with diabetes to evaluate glycemic, lipemic, hypertension and obesity control and its complications	1,2,3	10+10+10
Formulate a comprehensive management plan for patients with diabetes	1,2,3	10+10+10
Clinical and laboratory evaluation and management of patients with gestational diabetes	1,2,3	2+2+2
Prescribing and adjusting insulin for management with diabetes	1,2,3	2+2+2

PROCEDURES		
	Level	Cases
NEPHROLOGY		
Haemodialysis	2,3	6
Renal Biopsy	1	2
Insertion of double lumen catheter	3,4	4
Peritoneal Dialysis	2	2
PSYCHIATRY		
Psychotherapy Sessions	1	2

INTRODUCTION

The Curriculum of each Rotation of MD Infectious Diseases at Rawalpindi Medical University is mentioned separately in the start of section of each rotation. The Core competencies and Milestones of the Curriculum are provided here to have clear concepts about the competencies and to provide knowledge for all inpatient and outpatient rotations. Program requirements are based on the ACGME(Accreditation Council for Graduate Medical Education) standards for categorical training in Infectious Diseases. Curriculum is based on 6 core competencies. Detail of these competencies is as follows **Details of The Six Core Competencies of Curriculum of MD Infectious Diseases**

COMPETENCY NO. 1

PATIENT CARE (PC)

- **Gathers and synthesizes essential and accurate information to define each patient's clinical problem(s). (PC1)**

- Collects accurate historical data
- Uses physical exam to confirm history
- Does not relies exclusively on documentation of others to generate own database or differential diagnosis
- Consistently acquires accurate and relevant histories from patients
- Seeks and obtains data from secondary sources when needed
- Consistently performs accurate and appropriately thorough physical exams
- Uses collected data to define a patient's central clinical problem(s)
- Acquires accurate histories from patients in an efficient, prioritized, and hypothesis- driven fashion
- Performs accurate physical exams that are targeted to the patient's complaints
- Synthesizes data to generate a prioritized differential diagnosis and problem list
- Effectively uses history and physical examination skills to minimize the need for further diagnostic testing
- Obtains relevant historical subtleties, including sensitive information that informs the differential diagnosis
- Identifies subtle or unusual physical exam findings
- Efficiently utilizes all sources of secondary data to inform differential diagnosis
- Role models and teaches the effective use of history and physical examination skills to minimize the need for further diagnostic testing

- **Develops and achieves comprehensive management plan for each patient. (PC2)**

- Care plans are consistently inappropriate or inaccurate
- Does not react to situations that require urgent or emergent care
- Does not seek additional guidance when needed Inconsistently develops an appropriate care plan
- Inconsistently seeks additional guidance when needed
- Consistently develops appropriate care plan
- Recognizes situations requiring urgent or emergent care
- Seeks additional guidance and/or consultation as appropriate
- Appropriately modifies care plans based on patient's clinical course, additional data, and patient preferences
- Recognizes disease presentations that deviate from common patterns and require complex decision- making
- Manages complex acute and chronic diseases
- Role models and teaches complex and patient-centered care

- Develops customized, prioritized care plans for the most complex patients, incorporating diagnostic uncertainty and cost effectiveness principles
- **Manages patients with progressive responsibility and independence. (PC3)**
 - Assume responsibility for patient management decisions
 - Consistently manages simple ambulatory complaints or common chronic diseases
 - Consistently manages patients with straightforward diagnoses in the inpatient setting
 - Unable to manage complex inpatients or patients requiring intensive care
 - Requires indirect supervision to ensure patient safety and quality care
 - Provides appropriate preventive care and chronic disease management in the ambulatory setting
 - Provides comprehensive care for single or multiple diagnoses in the inpatient setting
 - Under supervision, provides appropriate care in the intensive care unit Initiates management plan for urgent or emergent care
 - Independently supervise care provided by junior members of the physician-led team
 - Independently manages patients across inpatient and ambulatory clinical settings who have a broad spectrum of clinical disorders including undifferentiated syndromes
 - Seeks additional guidance and/or consultation as appropriate
 - Appropriately manages situations requiring urgent or emergent care
 - Effectively supervises the management decisions of the team
 - Manages unusual, rare, or complex disorders
- **Skill in performing procedures. (PC4)**
 - Does not attempts to perform procedures without sufficient technical skill or supervision
 - Willing to perform procedures when qualified and necessary for patient care
 - Possesses basic technical skill for the completion of some common procedures
 - Possesses technical skill and has successfully performed all procedures required for certification
 - Maximizes patient comfort and safety when performing procedures
 - Seeks to independently perform additional procedures (beyond those required for certification) that are anticipated for future practice
 - Teaches and supervises the performance of procedures by junior members of the team
- **Requests and provides consultative care. (PC5)**
 - Is responsive to questions or concerns of others when acting as a consultant or utilizing consultant services
 - Willing to utilize consultant services when appropriate for patient care
 - Consistently manages patients as a consultant to other physicians/health care teams
 - Consistently applies risk assessment principles to patients while acting as a consultant
 - Consistently formulates a clinical question for a consultant to address
 - Provides consultation services for patients with clinical problems requiring basic risk assessment
 - Asks meaningful clinical questions that guide the input of consultants
 - Provides consultation services for patients with basic and complex clinical problems requiring detailed risk assessment
 - Appropriately weighs recommendations from consultants in order to effectively manage patient care
 - Switches between the role of consultant and primary physician with ease
 - Provides consultation services for patients with very complex clinical problems requiring extensive risk assessment
 - Manages discordant recommendations from multiple consultants

- **Patient Care PC-1**

- How To Teach**

- Discussions in ward rounds to teach history taking.
 - Discussions in ward rounds to teach physical examination.
 - Demonstration in ward rounds to teach history taking.
 - Demonstration in ward rounds to teach physical examination.
 - Discussions in wards of short cases
 - Discussions in wards of long cases
 - Simulated patient (in order to simulate a set of symptoms or problems.)
 - Should write a summary (synthesize a differential diagnosis).

- How To Assess**

- Discussions in ward rounds to assess history taking
 - Discussions in ward rounds to assess physical examination
 - Short cases assessment through long cases
 - Confirmation of physical findings by supervisor
 - Confirmation of history by supervisor.
 - OSPE

- **Patient Care PC-2**

- How To Teach**

- Resident should write management plan on history sheet and supervisor should discuss management plan.
 - Resident should write investigational plans, should be able to interpret with help of supervisor
 - Should be taught prioritization of care plans in complex patient by discussion.

- How To Assess**

- Long cases and short cases to assess the clear concepts of management by the trainee.

- **Patient Care PC-3**

- How To Teach**

- Discuss thoroughly the management side effects /interactions/dosage/therapeutic procedures and intervention

- How To Assess**

- | | |
|---|---|
| <ul style="list-style-type: none"><ul style="list-style-type: none"><ul style="list-style-type: none">○ Long case○ Short case○ OSPE○ Simulated patient | <ul style="list-style-type: none"><ul style="list-style-type: none"><ul style="list-style-type: none">○ Stimulated chart recall○ Log book○ Portfolio○ Internal assessment record |
|---|---|

- **Patient Care PC-4**

- How To Teach**

- Supervisor should ensure that the resident has complete knowledge about the procedures.
 - Trainee should observe procedures
 - Should perform procedures under supervision
 - Should be able to perform procedures independently
 - Videos regarding different procedures.

- How To Assess**

- OSPE
 - Logbook/ portfolio
 - Direct observation
 -

- **Patient Care PC-5**

- How to Teach**

- All consultations by the trainees should be discussed by the supervisor.

- How to Assess**

- Consultation record of the log book
 - Feedback by other department regarding consultation

COMPETENCY NO. 2 INFECTIOUS DISEASES AND MEDICAL KNOWLEDGE(MK)

- **Clinical knowledge (MK1)**

- Possesses sufficient scientific, socioeconomic and behavioral knowledge required to provide care for common medical conditions and basic preventive care.
 - Possesses the scientific, socioeconomic and behavioral knowledge required to provide care for complex infectious diseases conditions and comprehensive preventive care
 - Possesses the scientific, socioeconomic and behavioral knowledge required to successfully diagnose and treat medically uncommon infectious diseases, ambiguous and complex conditions.
 - Knowledge of diagnostic testing and procedures. (MK2)
 - Consistently interprets basic diagnostic tests accurately
 - Does not need assistance to understand the concepts of pre-test probability and test performance Characteristics
 - Fully understands the rationale and risks associated with common procedures
 - Interprets complex diagnostic tests accurately
 - Understands the concepts of pre-test probability and test performance characteristics

- Teaches the rationale and risks associated with common procedures and anticipates potential complications when performing procedures
- Anticipates and accounts for pitfalls and biases when interpreting diagnostic tests and procedures
- Pursues knowledge of new and emerging diagnostic tests and procedures
- **Medical Knowledge (MK-1, MK-2)**
 - How to Teach**
 - Books etc
 - Articles
 - CPC(Clinic Pathological Conference)
 - Lecture
 - Videos
 - SDL(Self Directed Learning)
 - PBL(Problem Based Learning)
 - How to Assess**
 - Teaching experience with medical student
 - Read procedural knowledge.
 - MCQs
 - SEQs
 - Viva
 - Videos
 - Internal assessment

COMPETENCY NO. 3 SYSTEM BASED Practice (SBP)

- **Works effectively within an interprofessional team (e.g. peers, consultants, nursing, Ancillary professionals and other support personnel). (SBP1)**
 - Recognizes the contributions of other inter professional team members
 - Does not frustrates team members with inefficiency and errors
 - Identifies roles of other team members and recognize how/when to utilize them as resources.
 - Does not requires frequent reminders from team to complete physician responsibilities (e.g. talk to family, enter orders)
 - Understands the roles and responsibilities of all team members and uses them effectively
 - Participates in team discussions when required and actively seek input from other team members
 - Understands the roles and responsibilities of and effectively partners with, all members of the team
 - Actively engages in team meetings and collaborative decision-making
 - Integrates all members of the team into the care of patients, such that each is able to maximize their skills in the care of the patient
 - Efficiently coordinates activities of other team members to optimize care
 - Viewed by other team members as a leader in the delivery of high quality care
- **Recognizes system error and advocates for system improvement. (SBP2)**
 - Does not ignore a risk for error within the system that may impact the care of a patient.
 - Does not make decisions that could lead to error which are otherwise corrected by the system or supervision.
 - Does not resistant to feedback about decisions that may lead to error or otherwise cause harm.
 - Recognizes the potential for error within the system.

- Identifies obvious or critical causes of error and notifies supervisor accordingly.
 - Recognizes the potential risk for error in the immediate system and takes necessary steps to mitigate that risk.
 - Willing to receive feedback about decisions that may lead to error or otherwise cause harm.
 - Identifies systemic causes of medical error and navigates them to provide safe patient care.
 - Advocates for safe patient care and optimal patient care systems
 - Activates formal system resources to investigate and mitigate real or potential medical error.
 - Reflects upon and learns from own critical incidents that may lead to medical error.
 - Advocates for system leadership to formally engage in quality assurance and quality improvement activities.
 - Viewed as a leader in identifying and advocating for the prevention of medical error.
 - Teaches others regarding the importance of recognizing and mitigating system error.
- **Identifies forces that impact the cost of health care, and advocates for, and practices cost-effective care. (SBP3).**
 - Does not ignores cost issues in the provision of care
 - Demonstrates effort to overcome barriers to cost- effective care
 - Has full awareness of external factors (e.g. socio- economic, cultural, literacy, insurance status) that impact the cost of health care and the role that external stakeholders (e.g. providers, suppliers, financiers, purchasers) have on the cost of care
 - Consider limited health care resources when ordering diagnostic or therapeutic interventions
 - Recognizes that external factors influence a patient's utilization of health care and Does not act as barriers to cost- effective care
 - Minimizes unnecessary diagnostic and therapeutic tests
 - Possesses an incomplete understanding of cost- awareness principles for a population of patients (e.g. screening tests)
 - Consistently works to address patient specific barriers to cost-effective care
 - Advocates for cost-conscious utilization of resources (i.e. emergency department visits, hospital readmissions)
 - Incorporates cost-awareness principles into standard clinical judgments and decision-making, including screening tests
 - Teaches patients and healthcare team members to recognize and address common barriers to cost-effective care and appropriate utilization of resources
 - Actively participates in initiatives and care delivery models designed to overcome or mitigate barriers to cost-effective high quality care
- **Transitions patients effectively within and across health delivery systems. (SBP4)**
 - Regards need for communication at time of transition
 - Responds to requests of caregivers in other delivery systems
 - Inconsistently utilizes available resources to coordinate and ensure safe and effective patient care within and across delivery systems
 - Written and verbal care plans during times of transition are complete
 - Efficient transitions of care lead to only necessary expense or less risk to a patient (e.g. avoids duplication of tests readmission)
 - Recognizes the importance of communication during times of transition

- Communication with future caregivers is present but with lapses in pertinent or timely information
- Appropriately utilizes available resources to coordinate care and ensures safe and effective patient care within and across delivery systems
- Proactively communicates with past and future care givers to ensure continuity of care
- Coordinates care within and across health delivery systems to optimize patient safety, increase efficiency and ensure high quality patient outcomes
- Anticipates needs of patient, caregivers and future care providers and takes appropriate steps to address those needs
- Role models and teaches effective transitions of care

How To Teach

- Lecture/ orientation session
- Various system/policies should be identified and discussed with the residents.
- Examples:
 - Zakaat
 - Admission procedure
 - Bait-ul-Mall
 - Discharge procedure
 - Consultation procedure
 - Shifting of patients according to SOPS
- Preferably a manual should be designed regarding various systems existing in the
 - Hospital for the resident.
 - Cost effectiveness/availability of medicine
 - Avoidance of unnecessary tests because of limited health resources.
 - Direct observation by the supervisor during ward rounds
 - Feed back
 - Assessment during case discussion

COMPETENCY NO. 4 PRACTICE BASED LEARNING (PBL)

- **Monitors practice with a goal for improvement. (PBLI1)**
 - Willing to self-reflect upon one's practice or performance
 - Concerned with opportunities for learning and self-improvement
 - Unable to self-reflect upon one's practice or performance
 - Avails opportunities for learning and self-improvement
 - Consistently acts upon opportunities for learning and self-improvement
 - Regularly self-reflects upon one's practice or performance and consistently acts upon those reflections to improve practice
 - Recognizes sub-optimal practice or performance as an opportunity for learning and self-improvement
 - Regularly self-reflects and seeks external validation regarding this reflection to maximize practice improvement
 - Actively engages in self- improvement efforts and reflects upon the experience
- **Learns and improves via performance audit. (PBLI2)**
 - Regards own clinical performance data
 - Demonstrates inclination to participate in or even consider the results of quality improvement efforts

- Adequate awareness of or desire to analyze own clinical performance data
- Participates in a quality improvement projects
- Familiar with the principles, techniques or importance of quality improvement
- Analyzes own clinical performance data and identifies opportunities for improvement
- Effectively participates in a quality improvement project
- Understands common principles and techniques of quality improvement and appreciates the responsibility to assess and improve care for a panel of patients Analyzes own clinical performance data and actively works to improve performance
- Actively engages in quality improvement initiatives
- Demonstrates the ability to apply common principles and techniques of quality improvement to improve care for a panel of patients
- Actively monitors clinical performance through various data sources
- Is able to lead a quality improvement project
- Utilizes common principles and techniques of quality improvement to continuously improve care for a panel of patients

- **Learns and improves via feedback. (PBLI3)**

- Does not resists feedback from others
- Often seeks feedback
- Never responds to unsolicited feedback in a defensive fashion
- Temporarily or superficially adjusts performance based on feedback
- Does not solicits feedback only from supervisors
- Is open to unsolicited feedback
- Solicits feedback from all members of the inter professional team and patients
- Consistently incorporates feedback
- Performance continuously reflects incorporation of solicited and unsolicited feedback
- Able to reconcile disparate or conflicting feedback

- **Learns and improves at the point of care. (PBLI4)**

- Acknowledges uncertainly and does not revert to reflexive patterned response when inaccurate
- Seeks or applies evidence when necessary
- Familiar with strengths and weaknesses of the medical literature
- Has adequate awareness of or ability to use information technology
- Does not accepts the findings of clinical research studies without critical appraisal Can translate medical information needs into well- formed clinical questions independently
- Aware of the strengths and weaknesses of medical information resources and utilizes information technology with sophistication
- Appraises clinical research reports, based on accepted criteria
- Does not “slows down” to reconsider an approach to a problem, ask for help, or seek new information

- Routinely translates new medical information needs into well-formed clinical questions
- Utilizes information technology with sophistication
- Independently appraises clinical research reports based on accepted criteria
- Searches medical information resources efficiently, guided by the characteristics of clinical questions
- Role models how to appraise clinical research reports based on accepted criteria
- Has a systematic approach to track and pursue emerging clinical question

- **Practice Based Learning (PBL1, PBL2, PBL3, PBL4)**

- How to Teach

- Discussions about problem cases
 - Should discuss errors and omissions

- How to Assess

- Feed back
 - 360 evaluation
 - Research article presentation
 - Journal club presentation
 - CPC presentation
 - Ward presentation
 - Quality improvement of projects

COMPETENCY NO. 5 PROFESSIONALISM (PROF)

- Has professional and respectful interactions with patients, caregivers and members of the inter professional team (e.g. peers, consultants, nursing, ancillary professionals and support personnel). (PROF1)
- Consistently respectful in interactions with patients, caregivers and members of the inter professional team, even in challenging situations
- Is available and responsive to needs and concerns of patients, caregivers and members of the inter professional team to ensure safe and effective care Emphasizes patient privacy and autonomy in all interactions
- Demonstrates empathy, compassion and respect to patients and caregivers in all situations
- Anticipates, advocates for, and proactively works to meet the needs of patients and caregivers
- Demonstrates a responsiveness to patient needs that supersedes self-interest
- Positively acknowledges input of members of the inter professional team and incorporates that input into plan of care as appropriate
- Role models compassion, empathy and respect for patients and caregivers
- Role models appropriate anticipation and advocacy for patient and caregiver needs
- Fosters collegiality that promotes a high-functioning inter professional team

- **Teaches others regarding maintaining patient privacy and respecting patient autonomy Accepts responsibility and follows through on tasks. (PROF2)**

- Demonstrates responsibilities expected of a physician professional
 - Accepts professional responsibility even when not assigned or not mandatory
 - Completes administrative and patient care tasks in a timely manner in accordance with local practice and/or policy

- Completes assigned professional responsibilities without questioning or the need for reminders
- Prioritizes multiple competing demands in order to complete tasks and responsibilities in a timely and effective manner
- Willingness to assume professional responsibility regardless of the situation
- Role models prioritizing multiple competing demands in order to complete tasks and responsibilities in a timely and effective manner
- Assists others to improve their ability to prioritize multiple, competing tasks
- **Responds to each patient's unique characteristics and needs. (PROF3)**
 - Willing to modify care plan to account for a patient's unique characteristics and needs
 - Is sensitive to and has basic awareness of differences related to culture, ethnicity, gender, race, age and religion in the patient/caregiver encounter
 - Seeks to fully understand each patient's unique characteristics and needs based upon culture, ethnicity, gender, religion, and personal preference
 - Modifies care plan to account for a patient's unique characteristics and needs with complete success
 - Recognizes and accounts for the unique characteristics and needs of the patient/ caregiver
 - Appropriately modifies care plan to account for a patient's unique characteristics and needs
 - Role models professional interactions to negotiate differences related to a patient's unique characteristics or needs
 - Role models consistent respect for patient's unique characteristics and needs
- **Exhibits integrity and ethical behavior in professional conduct. (PROF4)**
 - Has a basic understanding of ethical principles, formal policies and procedures, and does not intentionally disregard them
 - Honest and forthright in clinical interactions, documentation, research, and scholarly activity
 - Demonstrates accountability for the care of patients
 - Adheres to ethical principles for documentation, follows formal policies and procedures, acknowledges and limits conflict of interest, and upholds ethical expectations of research and scholarly activity
 - Demonstrates integrity, honesty, and accountability to patients, society and the profession
 - Actively manages challenging ethical dilemmas and conflicts of interest
 - Identifies and responds appropriately to lapses of professional conduct among peer group
 - Assists others in adhering to ethical principles and behaviors including integrity, honesty, and professional responsibility
 - Role models integrity, honesty, accountability and professional conduct in all aspects of professional life
 - Regularly reflects on personal professional conduct
- **Professionalism (PROF1, PROF2, PROF3 AND PROF4)**

How To Teach

1. Should be taught during ward rounds.
2. By supervisor
3. Through workshop

How To Assess

1. Punctuality
2. Behavior
3. Direct observation during ward rounds
4. Feed back
5. 360 degree evaluation

Competency No. 6 INTERPERSONAL AND COMMUNICATION SKILL (ICS)

- Communicates effectively with patients and caregivers. (ICS1)
 - Does not ignore patient preferences for plan of care
 - Makes attempt to engage patient in shared decision-making
 - Does not engage in antagonistic or counter-therapeutic relationships with patients and caregivers
 - Engages patients in discussions of care plans and respects patient preferences when offered by the patient, and also actively solicits preferences.
 - Attempts to develop therapeutic relationships with patients and caregivers which is often successful
 - Defers difficult or ambiguous conversations to others
 - Engages patients in shared decision making in uncomplicated conversations
 - Requires assistance facilitating discussions in difficult or ambiguous conversations
 - Requires guidance or assistance to engage in communication with persons of different socioeconomic and cultural backgrounds
 - Identifies and incorporates patient preference in shared decision making across a wide variety of patient care conversations
 - Quickly establishes a therapeutic relationship with patients and caregivers, including persons of different socioeconomic and cultural backgrounds
 - Incorporates patient-specific preferences into plan of care
 - Role models effective communication and development of therapeutic relationships in both routine and challenging situations
 - Models cross-cultural communication and establishes therapeutic relationships with persons of diverse socioeconomic backgrounds
- **Communicates effectively in inter professional teams (e.g. peers, consultants, nursing, ancillary professionals and other support personnel). (ICS2)**
 - Does not use unidirectional communication that fails to utilize the wisdom of the team
 - Does not resist offers of collaborative input
 - Consistently and actively engages in collaborative communication with all members of the team
 - Verbal, non-verbal and written communication consistently acts to facilitate collaboration with the team to enhance patient care
 - Role models and teaches collaborative communication with the team to enhance patient care, even in challenging settings and with conflicting team member opinions
- **Appropriate utilization and completion of health records. (ICS3)**
 - Health records are organized and accurate and are not superficial and does not miss key data or fails to communicate clinical reasoning
 - Health records are organized, accurate, comprehensive, and effectively communicate clinical reasoning
 - Health records are succinct, relevant, and patient specific
 - Role models and teaches importance of organized, accurate and comprehensive health records that are succinct and patient specific

- **Interpersonal and Communication Skill (ISC1, ICS2 AND ICS3)**

How to Teach

- Teaching through communication skills by supervisor
- Through workshop

How to Assess

- Direct observation
- Feed back
- 360 degree evaluation
- History taking
- CPC presentation
- Journal club presentation
- Article presentation
- Consultation
- OPD working
- Counselling sessions
- OSPE
- VIVA

METHODS OF TEACHING & LEARNING DURING COURSE CONDUCTION

1. **Inpatient Services:** All residents will have rotations in intensive care, coronary care, emergency medicine, general medical wards, general medicine, Clinical microbiology, ambulatory experiences etc. The required knowledge and skills pertaining to the ambulatory based training in following areas shall be demonstrated related to infectious diseases;
 - General Internal Medicine
 - Critical care & Emergency Medicine
 - Coronary care unit
 - Ambulatory Medicine
 - Cardiology
 - Pulmonary Medicine
 - Endocrinology
 - Rheumatology
 - Gastroenterology & Hepatology
 - Nephrology
 - Haematological Disorders
 - Psychiatry
 - Neurology
 - Dermatology
 - Radiology
2. **Outpatient Experiences:** Residents should demonstrate expertise in diagnosis and management of patients in acute care clinics and longitudinal clinic and gain experience in internal medicine, Clinical immunology and allergy, clinical microbiology Endocrinology, Gastroenterology, Hematology, Neurology, Nephrology, Pulmonology, Rheumatology etc.
3. **Emergency services:** Our residents take an early and active role in patient care and obtain decision-making roles quickly. Within the Emergency Department, residents direct the initial stabilization of all critical patients, manage airway interventions, and oversee all critical care.
4. **Electives/ Specialty Rotations:** In addition, the resident will elect rotations in a variety of electives including nutrition, or any of the infectious diseases subspecialty consultative services or clinics. They may choose electives from each medicine

subspecialty and from offerings of other departments. Residents may also select electives at other institutions if the parent department does not offer the experiences they want.

5. **Community Practice:** Residents experience the practice of medicine in a non-academic, non-teaching hospital setting. The rotation may be used to try out a practice that the resident later joins, to learn the needs of referring physicians or to decide on a future career path.
6. **Mandatory Workshops:** Residents achieve hands on training while participating in mandatory workshops of Research Methodology, Advanced Life Support, Communication Skills, Computer & Internet and Clinical Audit. Specific objectives are given in detail in the relevant section of Mandatory Workshops.
7. **Core Faculty Lectures (CFL):** The core faculty lecture's focus on monthly themes of the various specialty medicine topics for eleven months of the year, i.e., Cardiology, Gastroenterology, Hematology, etc. Lectures are still an efficient way of delivering information. Good lectures can introduce new material or synthesize concepts students have through text-, web-, or field-based activities. Buzz groups can be incorporated into the lectures in order to promote more active learning.
8. **Introductory Lecture Series (ILS):** Various introductory topics are presented by subspecialty and general medicine faculty to introduce interns to basic and essential topics in infectious diseases.
9. **Long and short case presentations:-** Giving an oral presentation on ward rounds is an important skill for medical student to learn. It is medical reporting which is terse and rapidly moving. After collecting the data, you must then be able both to document it in a written format and transmit it clearly to other health care providers. In order to do this successfully, you need to understand the patient's medical illnesses, the psychosocial contributions to their History of Presenting Illness and their physical diagnosis findings. You then need to compress them into a concise, organized recitation of the most essential facts. The listener needs to be given all of the relevant information without the extraneous details and should be able to construct his/her own differential diagnosis as the story unfolds. Consider yourself an advocate who is attempting to persuade an informed, interested judge the merits of your argument, without distorting any of the facts. An oral case presentation is NOT a simple recitation of your write-up. It is a concise, edited presentation of the most essential information. Basic structure for oral case presentations includes Identifying information/chief complaint (ID/CC) , History of present illness (HPI) including relevant ROS (Review of systems) questions only , Other active medical problems , Medications/allergies/substance use (note: e. The complete ROS should not be presented in oral presentations , Brief social history (current situation and major issues only) . Physical examination (pertinent findings only) , One line summary & Assessment and plan
10. **Seminar Presentation:** Seminar is held in a noon conference format. Upper level residents present an in-depth review of a infectious diseases topic as well as their own research. Residents are formally critiqued by both the associate program director and their resident colleagues.

- 11. Journal Club Meeting (JC):** A resident will be assigned to present, in depth, a research article or topic of his/her choice of actual or potential broad interest and/or application. Two hours per month should be allocated to discussion of any current articles or topics introduced by any participant. Faculty or outside researchers will be invited to present outlines or results of current research activities. The article should be critically evaluated and its applicable results should be highlighted, which can be incorporated in clinical practice. Record of all such articles should be maintained in the relevant department
- 12. Small Group Discussions/ Problem based learning/ Case based learning:** Traditionally small groups consist of 8-12 participants. Small groups can take on a variety of different tasks, including problem solving, role play, discussion, brainstorming, debate, workshops and presentations. Generally students prefer small group learning to other instructional methods. From the study of a problem students develop principles and rules and generalize their applicability to a variety of situations PBL is said to develop problem solving skills and an integrated body of knowledge. It is a student-centered approach to learning, in which students determine what and how they learn. Case studies help learners identify problems and solutions, compare options and decide how to handle a real situation.
- 13. Discussion/Debate:** There are several types of discussion tasks which would be used as learning method for residents including: guided discussion, in which the facilitator poses a discussion question to the group and learners offer responses or questions to each other's contributions as a means of broadening the discussion's scope; inquiry-based discussion, in which learners are guided through a series of questions to discover some relationship or principle; exploratory discussion, in which learners examine their personal opinions, suppositions or assumptions and then visualize alternatives to these assumptions; and debate in which students argue opposing sides of a controversial topic. With thoughtful and well-designed discussion tasks, learners can practice critical inquiry and reflection, developing their individual thinking, considering alternatives and negotiating meaning with other discussants to arrive at a shared understanding of the issues at hand.
- 14. Case Conference (CC):** These sessions are held three days each week; the focus of the discussion is selected by the presenting resident. For example, some cases may be presented to discuss a differential diagnosis, while others are presented to discuss specific management issues.
- 15. Noon Conference (NC):** The noon conferences focus on monthly themes of the various specialty topics for eleven months of the year, i.e., Cardiology, Gastroenterology, Hematology, etc.
- 16. Grand Rounds (GR):** The Department of Infectious diseases hosts Grand Rounds on weekly basis. Speakers from local, regional and national medicine training programs are invited to present topics from the broad spectrum of Infectious diseases. All residents on inpatient floor teams, as well as those on ambulatory block rotations and electives are expected to attend.
- 17. Professionalism Curriculum (PC):** This is an organized series of recurring large and small group discussions focusing upon current

issues and dilemmas in medical professionalism and ethics presented primarily by an associate program director. Lectures are usually presented in a noon conference format.

- 18. Evening Teaching Rounds:** During these sign-out rounds, the inpatient Chief Resident makes a brief educational presentation on a topic related to a patient currently on service, often related to the discussion from morning report. Serious cases are mainly focused during evening rounds.
- 19. Clinico-pathological Conferences:** The clinico pathological conference, popularly known as CPC primarily relies on case method of teaching medicine. It is a teaching tool that illustrates the logical, measured consideration of a differential diagnosis used to evaluate patients. The process involves case presentation, diagnostic data, discussion of differential diagnosis, logically narrowing the list to few selected probable diagnoses and eventually reaching a final diagnosis and its brief discussion. The idea was first practiced in Boston, back in 1900 by a Harvard internist, Dr. Richard C. Cabot who practiced this as an informal discussion session in his private office. Dr. Cabot incepted this from a resident, who in turn had received the idea from a roommate, primarily a law student.
- 20. Evidence Based Medicine (EBM):** Residents are presented a series of noon monthly lectures presented to allow residents to learn how to critically appraise journal articles, stay current on statistics, etc. The lectures are presented by the program director.
- 21. Clinical Audit based learning:** “Clinical audit is a quality improvement process that seeks to improve patient care and outcomes through systematic review of care against explicit criteria...Where indicated, changes are implemented...and further monitoring is used to confirm improvement in healthcare delivery.” Principles for Best Practice in Clinical Audit (2002, NICE/CHI)
- 22. Peer Assisted Learning:** Any situation where people learn from, or with, others of a similar level of training, background or other shared characteristic. Provides opportunities to reinforce and revise their learning. Encourages responsibility and increased self-confidence. Develops teaching and verbalization skills. Enhances communication skills, and empathy. Develops appraisal skills (of self and others) including the ability to give and receive appropriate feedback. Enhance organizational and team-working skills.
- 23. Morbidity and Mortality Conference (MM):** The M&M Conference is held occasionally at noon throughout the year. A case, with an adverse outcome, though not necessarily resulting in death, is discussed and thoroughly reviewed. Faculty members from various disciplines are invited to attend, especially if they were involved in the care of the patient. The discussion focuses on how care could have been improved.
- 24. Clinical Case Conference:** Each resident, except when on vacation, will be responsible for at least one clinical case conference each month. The cases discussed may be those seen on either the consultation or clinic service or during rotations in specialty areas. The resident, with the advice of the Attending Physician on the Consultation Service, will prepare and present the case(s) and review the relevant literature
- 25. SEQ as assignments on the content areas:** SEQs assignments are given to the residents on regular basis to enhance their

performance during written examinations.

26. Skill teaching in ICU, emergency, ward settings& skill laboratory: Two hours twice a month should be assigned for learning and practicing clinical skills. List of skills to be learnt during these sessions is as follows:

- Residents must develop a comprehensive understanding of the indications, contraindications, limitations, complications, techniques, and interpretation of results of those technical procedures integral to the discipline (mentioned in the Course outlines)
- Residents must acquire knowledge of and skill in educating patients about the technique, rationale and ramifications of procedures and in obtaining procedure-specific informed consent. Faculty supervision of residents in their performance is required, and each resident's experience in such procedures must be documented by the program director
- Residents must have instruction in the evaluation of medical literature, clinical epidemiology, clinical study design, relative and absolute risks of disease, medical statistics and medical decision-making
- Training must include cultural, social, family, behavioral and economic issues, such as confidentiality of information, indications for life support systems, and allocation of limited resources
- Residents must be taught the social and economic impact of their decisions on patients, the primary care physician and society. This can be achieved by attending the bioethics lectures and becoming familiar with Project Professionalism Manual such as that of the American Board of Infectious diseases
- Residents should have instruction and experience with patient counseling skills and community education
- This training should emphasize effective communication techniques for diverse populations, as well as organizational resources useful for patient and community education
- Residents should have experience in the performance of clinical laboratory and basic laboratory techniques including quality control, quality assurance and proficiency standards.

27. Bedside teaching rounds in ward: "To study the phenomenon of disease without a book is to sail an uncharted sea whilst to study books without patients is not to go to sea at all" Sir William Osler 1849-1919. Bedside teaching is regularly included in the ward rounds. Learning activities include the physical exam, a discussion of particular medical diseases, psychosocial and ethical themes, and management issues

28. Directly Supervised Procedures - (DSP): Residents learn procedures under the direct supervision of an attending or fellow during some rotations. For example, in the Intensive Care Unit the Pulmonary /Critical Care attending or fellow, or the MICU attending, observe the placement of central venous and arterial lines. Specific procedures used in patient care vary by rotation.

29. Self-directed learning self-directed learning residents have primary responsibility for planning, implementing, and evaluating their effort. It is an adult learning technique that assumes that the learner knows best what their educational needs are. The facilitator's role in self- directed learning is to support learners in identifying their needs and goals for the program, to contribute to clarifying the learners' directions and objectives and to provide timely feedback. Self-directed learning can be highly motivating, especially if the learner is focusing on problems of the immediate present, a potential positive outcome is anticipated and obtained and they are not threatened by taking responsibility for their own learning.

- 30. Follow up clinics:** The main aims of our clinic for patients and relatives include (a) Explanation of patient's stay in ICU or Ward settings: Many patients do not remember their ICU stay, and this lack of recall can lead to misconceptions, frustration and having unrealistic expectations of themselves during their recovery. It is therefore preferable for patients to be aware of how will they have been and then they can understand why it is taking some time to recover.(b)Rehabilitation information and support: We discuss with patients and relatives their individualized recovery from critical illness. This includes expectations, realistic goals, change in family dynamics and coming to terms with life style changes. (c) Identifying physical, psychological or social problems Some of our patients have problems either as a result of their critical illness or because of other underlying conditions. The follow-up team will refer patients to various specialties, if appropriate. (d) Promoting a quality service: By highlighting areas which require change in nursing and medical practice, we can improve the quality of patient and relatives care. Feedback from patients and relatives about their ICU & ward experience is invaluable. It has initiated various audits and changes in clinical practice, for the benefit of patients and relatives in the future.
- 31. Core curriculum meeting:** All the core topics of Infectious diseases should be thoroughly discussed during these sessions. The duration of each session should be at least two hours once a month. It should be chaired by the chief resident (elected by the residents of the relevant discipline). Each resident should be given an opportunity to brainstorm all topics included in the course and to generate new ideas regarding the improvement of the course structure
- 32. Annual Grand Meeting** Once a year all residents enrolled for MD Infectious diseases should be invited to the annual meeting at RMU. One full day will be allocated to this event. All the chief residents from affiliated institutes will present their annual reports. Issues and concerns related to their relevant courses will be discussed. Feedback should be collected and suggestions should be sought in order to involve residents in decision making. The research work done by residents and their literary work may be displayed. In the evening an informal gathering and dinner can be arranged. This will help in creating a sense of belonging and ownership among students and the faculty.
- 33. Learning through maintaining log book:** it is used to list the core clinical problems to be seen during the attachment and to document the student activity and learning achieved with each patient contact.
- 34. Learning through maintaining portfolio:** Personal Reflection is one of the most important adult educational tools available. Many theorists have argued that without reflection, knowledge translation and thus genuine “deep” learning cannot occur. One of the Individual reflection tools maintaining portfolios, Personal Reflection allows students to take inventory of their current knowledge skills and attitudes, to integrate concepts from various experiences, to transform current ideas and experiences into new knowledge and actions and to complete the experiential learning cycle.

35. Task-based-learning: A list of tasks is given to the students: participate in consultation with the attending staff, interview and examine patients.

36. Teaching in the ambulatory care setting: A wide range of clinical conditions may be seen. There are large numbers of new and return patients. Students have the opportunity to experience a multi-professional approach to patient care. Unlike ward teaching, increased numbers of students can be accommodated without exhausting the limited No. of suitable patients.

37. Community Based Medical Education: CBME refers to medical education that is based outside a tertiary or large secondary level hospital. Learning in the fields of epidemiology, preventive health, public health principles, community development, and the social impact of illness and understanding how patients interact with the health care system. Also used for learning basic clinical skills, especially communication skills.

38. Audio visual laboratory: audio visual material for teaching skills to the residents is used specially for procedures.

39. E-learning/web-based medical education/computer-assisted instruction: **Computer** technologies, including the Internet, can support a wide range of learning activities from dissemination of lectures and materials, access to live or recorded presentations, real-time discussions, self-instruction modules and virtual patient simulations. distance-independence, flexible scheduling, the creation of reusable learning materials that are easily shared and updated, the ability to individualize instruction through adaptive instruction technologies and automated record keeping for assessment purposes.

40. Research based learning: All residents in the categorical program are required to complete an academic outcomes-based research project during their training. This project can consist of original bench top laboratory research, clinical research or a combination of both. The research work shall be compiled in the form of a thesis which is to be submitted for evaluation by each resident before end of the training. The designated Faculty will organize and mentor the residents through the process, as well as journal clubs to teach critical appraisal of the literature.

41. Other teaching strategies specific for different specialties as mentioned in the relevant parts of the curriculum

Some of the other teaching strategies which are specific for certain domains of Infectious diseases are given along with relevant modules.

CURRICULUM OF DIFFERENT SPECIALITIES RELATED TO MD INFECTIOUS DISEASES

ROTATION CURRICULUM OF MD INFECTIOUS DISEASES FOR CRITICAL CARE UNIT (INTENSIVE CARE UNIT – ICU)

Educational Purpose:

- The goal of the Critical Care faculty is to train the resident to evaluate and treat critically ill patients, use consultants and paramedical personnel effectively, and stress sensitive, compassionate management of patients and their families.
- Training in emergency medicine and critical care is crucial for the general internist.
- Recognition/prioritization medical emergencies is the basic knowledge that should be acquired by the resident
- Important aspects of this training include: identifying patients who are candidates for intensive care, the bedside approach to the critically-ill patient, knowledge of algorithms for diagnosis and management of common problems in the ICU, death and resuscitation issues, interaction with families

Content of required knowledge:

1. Understand blood gas results and respond appropriately.
2. Understand cardiovascular hemodynamics in a wide range of disease states.
3. Management of congestive heart failure and cardiogenic shock.
4. Basics of conventional mechanical ventilation.
5. Nutritional support of the critically ill.
6. Management of acute myocardial ischemia.
7. Acute renal failure - diagnosis and treatment.
8. Acute endocrinologic emergencies.
9. Acute lung injury.
10. Sepsis and the sepsis syndrome.
11. Acute treatment of cardiac arrhythmias.
12. Management of acute gastrointestinal bleeding.
13. Management of common neurologic emergencies.
14. Management of common toxicologic emergencies

Skills and Procedures:

- Asthma management
- Evaluation of chest pain
- Evaluation of shortness of breath
- Airway management/tracheostomy Barotrauma
- Mechanical ventilation: indications, initial set-up, trouble shooting, weaning
- Critical care nutrition: indications, disease-specific nutrition, writing TPN orders
- Management of Ob/Gynae emergencies
- Oxygen transport: physiology, alterations in the critically-ill
- Arterial blood gases: approach to analysis, common alterations
- Hemodynamics: physiology, PA catheter, hemodynamic waveforms, trouble-shooting
- Critical care pharmacology: pressors / inotropes, antibiotic dosing, drug dosing in ARF
- Shock: pathophysiology, approach to resuscitation
- Fluid and electrolyte disturbances: sodium, potassium, magnesium, calcium
- Acute renal failure: approach differential diagnosis, management

- Coma: pathophysiology, neurological exam, differential diagnosis
- Wound care
- Splinting techniques
- Ophthalmologic emergency management
- Multiple organ dysfunction syndrome
- Acute CHF
- Ethical issues in the ICU
- Management of environmental emergencies

- Basic toxicology principles
- Sepsis prevention in the ICU
- Arterial line insertion
- Central venous catheterization
- Pulmonary artery catheterization
- Assistance in endotracheal intubation
- Cardiopulmonary resuscitation
- Ordering and rapid interpretation of laboratory tests

Evaluation/Feedback

- At the midway point of the rotation, residents are given feedback (informally) on their performance to date. Areas and methods of improvement are suggested. A formal evaluation and verbal discussion with the resident is to be done at the end of the rotation.
- 360 degree evaluation to judge the professionalism, ethics
- A formal evaluation and verbal discussion with the PGT is to be done at the end of the rotation / PGTs are encouraged to discuss with the supervisor, co- supervisor and program director/Dean their learning experiences, difficulties or conflicts.
- Evaluation of training program by trainees pertinent to effectiveness and efficiency of program to equip trainees with necessary skills

Suggested Readings:

- Paul L. Marino, The ICU Book, 3rd edition.
- Marin H. Kollef, the Washington Manual of Critical Care.
- ATS website <http://www.thoracic.org/education/career-development/residents/ats-reading-list/>

Antonelli M *et.al.* "Year in review in Intensive Care Medicine 2009: 1. Pneumonia and infections, sepsis, outcome, acute renal failure and acid base, nutrition, and glycaemia control" Intensive Care Medicine 2010; 36:196-209 (available through UNM HSC library e-journal)

CURRICULUM OF MD INFECTIOUS DISEASES FOR CARDIOLOGY

Educational Purpose

To give the PGTs formal intensive instruction, clinical experience, and the opportunity to acquire expertise in the evaluation and management of cardiovascular disorders.

Content of required knowledge:

1. The resident should be able to provide primary and secondary preventive care and initially manage the full range of cardiovascular disorders.
2. The need for additional competencies in cardiovascular disease will depend on the availability of a cardiologist in the primary practice setting.
3. In some communities, the resident may be responsible for management of more complex cardiovascular disorders that require intensive hemodynamic monitoring (for example, balloon-tipped pulmonary artery catheters) in the intensive care unit.

Common Clinical Disorders:

- Coronary Artery Diseases ☐ Chronic stable angina.

- Unstable angina.
- Care of post-CABG and post-PTCA patients.
- Myocardial infarction (covered mainly in the coronary care unit rotation).
- Care of post myocardial infarction patients.
- Congestive heart failure:
- Chronic heart failure.
- Systolic heart failure from various etiologies (ischemic/ non ischemic).
- Diastolic heart failure.
- Pulmonary edema.
- Valvular heart disease.
- Infective endocarditis.
- Arrhythmias
- Atrial fibrillation, atrial flutter and other common supraventricular arrhythmias.
- Ventricular arrhythmias, sudden cardiac death and indications for AICD implantation.
- Brady arrhythmias and major indication of temporary and permanent pacing.
- Basic understanding of pacemaker function.
- Indication and value of electro physiologic testing.
- Adult congenital heart disease.
- Cardiomyopathies and myocarditis.
- Preoperative evaluation:
- Assessing cardiac risk in patients undergoing non-cardiac surgeries.

Procedure Skills

- Advanced cardiac life support
- Insertion of balloon-tipped pulmonary artery catheter (optional)
- Insertion of temporary pacemaker (optional)

Interpretation of clinical and laboratory Tests

- Ambulatory ECG monitoring
- Echocardiography
- Electrophysiology testing
- Left ventricular catheterization and coronary angiography

- Interventions to minimize cardiac risk in patients undergoing non-cardiac procedures.
- Hypertension:
- Hypertensive urgencies and emergencies.
- Management of chronic hypertension, especially patients with difficult to control hypertension.
- Secondary hypertension.
- Aortic disease (aortic aneurysm).
- Venous thromboembolic disease / pulmonary embolism, pulmonary vascular disease, and chronic venous stasis.
- Arterial insufficiency
- Pericardial disease
- Dyslipidemia
- Common Clinical Presentations
- Abnormal heart sounds or murmurs
- Chest pain
- Dyspnea
- Effort intolerance, fatigue
- Hypertension
- Intermittent claudication
- Leg swelling
- Peripheral vascular disease
- Risk factor modification
- Shock, cardiovascular collapse
- Syncope, lightheadedness

- Nuclear scan wall motion study
- Right ventricular catheterization (including flotation catheter)
- Stress electrocardiography and thallium myocardial perfusion scan

- Tilt-table physiology study

□ Cardiac markers

Assessment:

- OSCE
- MCQs
- SEQs
- Long case
- Short case

Evaluation/Feedback

- 360 degree evaluation to judge the professionalism, ethics
- A formal evaluation and verbal discussion with the PGT is to be done at the end of the rotation / PGTs are encouraged to discuss with the supervisor, co- supervisor and program director/Dean their learning experiences, difficulties or conflicts.
- Evaluation of training program by trainees pertinent to effectiveness and efficiency of program to equip trainees with necessary skills

Suggested Readings:

1. Section on cardiovascular disease in Harrison's Principles of Internal Medicine , McGraw-Hill publisher
2. Section on cardiovascular disease in Cecil's Textbook of Medicine, WB Saunders Publisher.
3. MKSAP booklet on Cardiology
4. A collection of updated review articles references will also be provided which address basic areas of cardiology. The PGT is strongly encouraged to read as many of these articles as possible.

CURRICULUM OF MD INFECTIOUS DISEASES FOR RADIOLOGY

Educational Purpose:

To give residents formal, informal instruction and clinical experience in the evaluation and clinical correlation of the results of various imaging techniques utilized in a modern radiology department.

General objectives for Radiology course:

1. The ability to understand the principles of radiological studies
2. Utilization of imaging techniques in the acutely injured or ill patient
3. Effective evaluation of acute chest and abdominal conditions
4. Therapeutic and diagnostic interventions with imaged guided procedures
5. Basics aspects of medical radiation exposure and protection
6. Physiologic principles of nuclear medicine and functional MRI
7. Newer neuroimaging techniques for cerebral diseases and conditions
8. Awareness and use of the data base that exists in radiology

Content of required knowledge:

1. Fundamentals of chest roentgenology
2. Basics of radiology of heart disease
3. Differential diagnoses in cardiac disease
4. Plain film of the abdomen
5. Approach to Small Bowel Disease

6. Differential Diagnoses in GI Disease
7. Differential Diagnoses in MSK Disease
8. Radiological findings of Chest diseases
9. Radiological findings of Liver diseases
10. Radiological findings of Pancreas diseases
11. Radiological findings of Trauma diseases
12. Basics of CT scan, interpretation & diagnosis of common diseases
13. Basics of MRI scan, interpretation & diagnosis of common diseases

Assessment:

- OSCE
- MCQs
- SEQs
- Long case
- Short case

Evaluation/Feedback

1. 360 degree evaluation to judge the professionalism and ethics
2. Attendance at the required morning X-ray film review
3. Assigned case presentations and conference presentations will be evaluated
4. Ability to interpret results of commonly used imaging studies
5. Mid-rotation evaluation session between the resident and the consult service attending for that month
6. Residents will receive feedback with respect to achieving the desired level of proficiency.
7. Ways in which they can enhance their performance will be discussed when the desired level of proficiency has not been achieved.
8. Evaluation and feedback will occur during the rotation.
9. A formal evaluation and verbal discussion with the resident is to be done at the end of the rotation.
 - Should be able to interpret CT and MRI scans for common diseases

Suggested readings:

1. The Emergency Patient. Charles S. Langston, Lucy Frank Squire. Saunders, 1975
2. Emergency Radiology. T. Keats. Mosby, 1988 2nd Edition
3. Radiology of the Emergency Patient: An Atlas Approach. Edited by Edward I. Greenbaum. New York: Wiley, c1982.
4. Videodisc: Head and neck, GI, GU Ultrasound files
5. Learning Radiology.com

CURRICULUM OF MD INFECTIOUS DISEASES FOR PULMONOLOGY

Educational Purpose

To give a broad view of pulmonary diseases to postgraduate trainees to facilitate them in diagnosing and managing acute and chronic pulmonary diseases and when to pursue pulmonary subspecialty consultations.

Content of Required Knowledge

1. PGT should be able to recognize signs and symptoms, diagnose and manage all common pulmonary infections, TB, COPD.
2. PGT should be proficient enough to diagnose and manage pulmonary vascular diseases and respiratory failure.
3. PGT should seek pertinent physical exam, laboratory information, and radiographic studies to rule out malignancies of pleura and mediastinum including pneumothorax and empyema.

Pulmonary Disorders

- Pulmonary infections, including fungal infections, and those in the immuno-compromised host
- Tuberculosis
- Obstructive lung diseases including asthma, bronchitis, emphysema and bronchiectasis
- Malignant diseases of the lung, pleura and mediastinum, both primary and metastatic
- Pulmonary vascular diseases (Pulmonary embolism)
- Pleuro-pulmonary manifestations of systemic diseases
- Respiratory failure (Respiratory Distress Syndrome)
- Occupational and environmental lung disease
- Diffuse interstitial lung disease
- Disorders of the pleura and mediastinum, including pneumothorax and empyema
- Sleep-induced disorders of breathing

Procedural Skills

- Thoracentesis
- Bronchoscopy
- Chest intubation
- Needle biopsy of pleura

Interpretation of clinical and laboratory procedures

- Pulmonary Function Tests
- Thoracentesis
- Needle biopsy of pleura
- Bronchoscopy
- Chest intubation

Assessment

- OSCE
- MCQs
- SEQs
- Long case
- Short case

*Assessment of the trainees will be followed by constructive feedback for improvement of their attitude, performance and competencies.

Evaluation / Feedback

- 360 degree evaluation of the trainees to judge the professionalism, ethics, counseling & interpersonal communication skills

- Evaluation by formal discussion of trainees with supervisor, co-supervisor and program director by the end of rotation to rule out conflicts of interest and difficulties faced by trainees
- Evaluation of training program pertinent to effectiveness and efficiency of program in equipping trainees with necessary skills
- Trainees will frequently be provided with feedback for improvement of their performance.

Suggested Readings

1. John B. West, Andrew M. Luks. West's respiratory physiology: The Essentials. 10th Edition. WoltersKluwer.
2. Dinah Bradley. Foreword by Dr. Mike Thomas. Hyperventilation syndrome. Breathing Pattern Disorder. 2012. London. United Kingdom.
3. Lynelle N.B. Pierce. Management of Mechanically Ventilated Patient. 2nd Edition. 2006. Elsevier.

CURRICULUM OF MD INFECTIOUS DISEASES FOR DERMATOLOGY

Educational Purpose:

To give the residents formal intensive instruction, clinical experience, and the opportunity to acquire expertise in the evaluation and management of cutaneous disorders.

Content of required knowledge:

1. Understanding the morphology, differential diagnosis and management of disorders of the skin, mucous membranes, and adnexal structures, including inflammatory, infectious, neoplastic, metabolic, congenital, and structural disorders.
2. Competence in medical and surgical interventions and dermatopathology are important facets.
3. The general internist should have a general knowledge of the major diseases and tumors of the skin. He or she should be proficient at examining the skin; describing findings; and recognizing skin, signs of systemic diseases, normal findings (including benign growths of the skin), and common skin malignancies.
4. The general internist should be able to diagnose and manage a variety of common skin conditions and make referrals where appropriate.
5. These objectives will be taught through the didactic sessions and at bedside teaching as they relate to specific patients in the clinic and on the consult service:

The resident should learn the pathogenesis, diagnosis, and treatment of: Acne, Rosacea, Contact dermatitis, Atopic Dermatitis, Nummular eczema, Dyshidrotic eczema, Psoriasis, Seborrheic dermatitis, Pityriasis Rosea, Warts, Molluscum contagiosum, Herpes Simplex, Herpes Zoster, Impetigo, Folliculitis, Furuncles, Erythrasma, Tinea infections, Candida infections, Pityriasis Versicolor, Scabies, Cutaneous reaction to flea bites, Seborrheic keratosis, Keratoacanthoma, Moles, Blue nevus, Cherry angioma, Spider angioma, Pyogenic granuloma, Dermatofibroma, Keloids, Skin tags, Epidermoid cysts, Trichilemmal cysts, Milium, Digital myxoid cyst, alopecia areata, Androgenic alopecia, Sun burn, dermatoheliosis, Solar Lentigo, Solar keratosis, Phototoxic reaction, Photoallergic reaction, Polymorphous Light Eruption, Lichen Planus, Granuloma annulare, Infectious exanthema, Rocky Mountain Spotted Fever, Rubella, Measles, Scarlet fever, Varicella, Sporotrichosis, Leprosy, Tuberculosis, Leishmaniasis, Lyme disease, Cellulitis, Gonorrhea, Syphilis, Chancroid, Genital warts, Genital Herpes, Kaposi's Sarcoma, Erythroderma, Urticaria, Erythema multiforme, Erythema Nodosum, Lupus, Vasculitis, Sarcoidosis, Xanthelasma, Exanthematous Drug eruptions, Fixed drug eruptions, Vitiligo, Melasma, Melanoma, Basal Cell Carcinoma, Squamous Cell Carcinoma, Paget's disease.

Common Clinical Presentations

- Abnormalities of pigmentation
- Eruptions (eczematous, follicular, papulovesicular, vesicular, vesiculobullous)
- Hair loss
- Hirsutism
- Intertrigo
- Leg ulcer
- Mucous membrane ulceration
- Nail infections and deformities
- Pigmented lesion
- Pruritus
- Purpura
- Skin papule or nodule
- Verrucous lesion

Procedure Skills

- Application of chemical destructive agents for skin lesions e.g., warts and molluscum, condyloma
- Incision, drainage, and aspiration of fluctuant lesions for diagnosis or therapy
- Scraping of skin (for potassium hydroxide, mite examination)
- Skin biopsy
- Cryotherapy
- Primary Interpretation of Tests
- Microscopic examination for scabies, nits, etc.
- Tzanck smear
- Ordering and Understanding Tests
- Dark-field microscopy
- Fungal culture
- Skin biopsy

Assessment:

- OSCE
- MCQs
- SEQs
- Long case
- Short case

□

Evaluation/Feedback:

- 360 degree evaluation to judge the professionalism, ethics
- The faculty will fill out the standard evaluation form using the criteria for evaluations of the resident in the required competencies related to dermatology.
- The residents will fill out an evaluation of the dermatology rotation at the end of the month. Any constructive criticism, improvements, or suggestions to further enhance the training in dermatology are welcome at any time.
- The resident should receive frequent (generally daily) feedback in regards to his or her performance during the dermatology rotation.
- The resident will be informed about the results of the evaluation process, and input will be requested from the resident in regards to his or her evaluation of the dermatology rotation.
- The faculty is encouraged to use the “early concern” and “praise card” throughout the rotation.
- A formal evaluation and verbal discussion with the resident is to be done at the end of the rotation.

Suggested readings:

1. Mandatory Reading: Fitzpatrick T. *Color Atlas and Synopsis of Clinical Dermatology*
2. MKSAP booklet on Dermatology
3. Medical Literature: A collection of updated review articles will also be provided which address basic areas of dermatology. The resident is strongly encouraged to read as many of these articles as possible.

CURRICULUM OF MD INFECTIOUS DISEASES FOR NEPHROLOGY**Educational Purpose**

To make postgraduate trainees competent in identification of the problem and provision of care to patients presenting with renal disorders.

Content of Required Knowledge

1. PGT should be able to classify renal failure and stage chronic kidney diseases
2. PGT should understand etiology, pathogenesis and competent enough to clinically present, diagnose and manage the cases of glomerulopathies, tubule-interstitial disorders
3. PGT must be proficient in managing acid-base disorders and fluid / electrolyte imbalances
4. PGT should know principles of dialysis procedure and its complications

Renal Disorders

- Acute renal failure
- Chronic renal failure
- Primary & secondary glomerulopathies
- Tubulo-interstitial disorders
- Obstructive nephropathy (acute & chronic)
- Hereditary nephropathy (Polycystic kidney disease, Alport's syndrome)
- Diabetic nephropathy
- Primary and secondary hypertension
- Lupus nephritis
- Nephritic syndrome
- Acid base disorders
- Fluid & electrolytes imbalances
- Urinalysis
- Kidney biopsy indications
- Acute and chronic dialysis
- Kidney transplantation

Procedural Skills

- placement of temporary hemodialysis catheters
- kidney biopsies
- placement of tunneled hemodialysis catheters
- ultrasonography

- hemodialysis access interventions
- Placement of peritoneal dialysis catheters

Interpretation of clinical and laboratory procedures

- Renal Function Tests (RFTs)
- Renal biopsy

Assessment

- OSCE
- MCQs
- SEQs

- Renal ultrasonography

- Long case
- Short case

*Assessment of the trainees will be followed by constructive feedback for improvement of their attitude, performance and competencies.

Evaluation / Feedback

- 360 degree evaluation of the trainees to judge the professionalism, ethics, counseling & interpersonal communication skills
- Evaluation by formal discussion of trainees with supervisor, co-supervisor and program director by the end of rotation to rule out conflicts of interest and difficulties faced by trainees
- Evaluation of training program pertinent to effectiveness and efficiency of program in equipping trainees with necessary skills will also be done.
- Trainees will frequently be provided with feedback for improvement of their performance.

Suggested Readings

1. Murray Longmore. Oxford Handbook of Clinical Medicine and Oxford Assess and Progress: Clinical Medicine Pack. 2014.
2. Douglas C.Eaton. John Pooler. Vanders Renal Physiology, 8th Edition. Lange.
3. Michael J. Field, Carol Pollock, David Harris. The Renal System: Systems of the body series. 2nd Edition. Churchill Livingstone.
4. Richard A. Preston. Acid Base, fluids and electrolytes made ridiculously simple. 2nd Edition. 2010.

CURRICULUM OF MD INFECTIOUS DISEASES FOR GASTROENTEROLOGY

Educational Purpose:

To give the residents formal instruction, clinical experience, and opportunities to acquire expertise in the evaluation and management of gastroenterological disorders.

Content of required knowledge:

The major objectives are as following

1. To provide Residents with opportunities to evaluate and manage patients with a wide variety of digestive disorders in an inpatient and outpatient setting. The Resident will act, under the supervision of the attending gastroenterologist, as a consultant to other clinical services.
2. To give Residents opportunities to learn about various aspects of a broad range of GI, liver and pancreatic disorders, with emphasis on the more common disorders.

3. To provide Residents with opportunities to learn the indications, contraindications, complications, limitations and alternatives for GI procedures.
4. Additional areas include knowledge of nutrition and nutritional deficiencies, and screening and prevention, particularly for colorectal cancer. The general internist should have a wide range of competency in gastroenterology and should be able to provide primary and in some cases secondary preventive care, evaluate a broad array of gastrointestinal symptoms, and manage many gastrointestinal disorders.

Common Clinical Disorders

- Malabsorptive/Nutritional disorders
- Inflammatory Bowel Disease
- Irritable Bowel Syndrome
- Peptic Ulcer Diseases
- Malignancies of the Digestive System
- GI disorders and pregnancy
- Gastrointestinal Emergencies
- Indications/complications of GI procedures
- Viral hepatitis
- Chronic liver disease and Cirrhosis
- GI motility disorders
- Biliary disorders
- Pancreatic disorders
- Common Clinical Presentations
- Abdominal distention
- Abdominal pain
- Abnormal liver function test
- Anorectal discomfort, bleeding, or pruritus
- Swallowing dysfunction
- Anorexia, weight loss
- Ascites
- Constipation
- Diarrhea
- Excess intestinal gas
- Fecal incontinence
- Food intolerance
- Gastrointestinal bleeding
- Heartburn
- Hematemesis
- Indigestion
- Iron-deficiency anemia
- Jaundice
- Liver failure
- Malnutrition
- Melena
- Nausea, vomiting
- Non-cardiac chest pain

Procedure Skills

- Flexible sigmoidoscopy
- Paracentesis
- Placement of nasogastric tube
- Sengstaken-Blakemore tube (optional)
- Primary Interpretation of Tests
- Fecal leukocytes
- Test for occult blood
- Ordering and Understanding tests
- 24-Hour esophageal motility studies and pH monitoring
- Assays for *Helicobacter pylori*
- Biopsy of the gastrointestinal mucosa
- Blood tests for autoimmune, cholestatic, genetic liver diseases
- Upper endoscopy
- Colonoscopy
- Computed tomography, magnetic resonance imaging, ultrasound of the abdomen
- Contrast studies (including upper gastrointestinal series, small-bowel follow through, barium enema)
- Culture of stool for ova, parasites

- D-Xylose absorption test and other small bowel absorption tests
- Endoscopic retrograde cholangio-pancreatography
- Esophageal manometry
- Examination for stool for ova, parasites
- Fecal electrolytes
- Fecal osmolality
- Interpretation of fecal occult blood tests.
- Gall bladder radionuclide scan
- Gastric acid analysis, serum gastrin level, secretin stimulation test
- Viral hepatitis serology

Assessment:

- OSCE
- MCQs
- SEQs
- Long case
- Short case

- Lactose and hydrogen breath tests
- Laparoscopy
- Laxative screen
- Liver biopsy
- Paracentesis and interpretation of ascitic fluid analysis
- Mesenteric arteriography
- Percutaneous transhepatic cholangiography
- Qualitative and quantitative stool fat
- Scans of gastric emptying
- Serum B12 and Schilling tests
- Endoscopic ultrasound (EUS)

- Case Based Discussion (CBD)
- Work Place Based Assessment(WPBA)
- Clinical Audit
- MINICEX

Evaluation/Feedback:

1. Resident Evaluation: The faculty will fill out the standard evaluation form using the criteria for required competencies as related to gastroenterology.
2. Program Evaluation
 - i. The residents will fill out an evaluation of the gastroenterology rotation at the end of the month.
 - ii. Any constructive criticism, improvements, or suggestions to further enhance the training in gastroenterology are welcome at any time.
3. Residents will receive feedback with respect to achieving the desired level of proficiency and working out ways in which they can enhance their performance when the desired level of proficiency has not been achieved.
4. The faculty is encouraged to use the “early concern” and “praise card” throughout the rotation.
5. A formal evaluation and verbal discussion with the resident is to be done at the end of the rotation.

Suggested readings:

1. Allied hospitals of Rawalpindi Medical University have large patient populations with a broad spectrum of gastrointestinal and liver diseases.
2. Pathology and Radiology department of Allied hospitals of Rawalpindi Medical University have excellent diagnostic testing services available.
3. Medical Literature: Articles related to major topics will also be made available.
4. The resident will be oriented to the major textbooks and journals in gastroenterology and hepatology available in Rawalpindi Medical University.

CHARTING THE ROAD TO COMPETENCE: DEVELOPMENTAL MILESTONES FOR MD INFECTIOUS DISEASES PROGRAM AT RAWALPINDI MEDICAL UNIVERSITY

Remember to celebrate for the milestones as you prepare for the road ahead- Nelson Mandela.

High-quality assessment of resident performance is needed to guide individual residents' development and ensure their preparedness to provide patient care. To facilitate this aim, reporting milestones are now required across all Infectious diseases (ID) residency programs. Milestones promote competency based training in internal medicine. Residency program directors may use them to track the progress of trainees in the 6 general competencies including **patient care, Medical Knowledge, Practice-Based Learning and Improvement, Interpersonal and Communication Skills, Professionalism and Systems-Based Practice**. Milestones inform decisions regarding promotion and readiness for independent practice. In addition, the milestones may guide curriculum development, suggest specific assessment strategies, provide benchmarks for resident self-directed assessment-seeking, assist remediation by facilitating identification of specific deficits, and provide a degree of national standardization in evaluation. Finally, by explicitly enumerating the profession's expectations for graduates, they may improve public accountability for residency training.

Table-1 Developmental Milestones for INFECTIOUS DISEASES Training—Patient Care			
Competency	Developmental Milestones Informing Competencies	Approximate Time Frame Trainee Should Achieve Stage (months)	General Evaluation Strategies Assessment Methods/ Tools
A. Clinical skills and reasoning <ul style="list-style-type: none"> Manage patients using clinical skills of interviewing and physical examination Demonstrate competence in the performance of procedures Appropriately use laboratory and imaging techniques 	Historical data gathering		
	Acquire accurate and relevant history from the patient in an efficiently customized prioritize and hypothesis driven fashion	8	<ul style="list-style-type: none"> Standardized patient Direct observation
	Seek and obtain appropriate, verified, and prioritized data from secondary sources (eg, family, records, pharmacy)	12	
	Obtain relevant historical subtleties that Inform and prioritize both differential diagnoses and diagnostic plans, including sensitive, complicated and detailed information that may not often be volunteered by the patient	24	
	Role model gathering subtle and reliable information from the patient for junior members of the healthcare team	40	

	Performing a physical examination		
	Perform an accurate physical examination that is appropriately targeted to the patient's complaints and medical conditions. Identify pertinent abnormalities using common maneuvers	8	<ul style="list-style-type: none">• Standardized patient• Direct observation• Simulation
	Accurately track important changes in the physical examination overtime in the outpatient and inpatient settings	12	
	Demonstrate and teach how to elicit important physical findings for junior members of the healthcare team	24	
	Routinely identify subtle or unusual physical findings that may influence clinical decision making, using advanced maneuvers where applicable	40	
	Clinical reasoning		
	Synthesize all available data, including interview, physical examination, and preliminary laboratory data, to define each patient's central clinical problem	16	<ul style="list-style-type: none">• Chart-stimulated recall• Direct observation• Clinical vignettes
	Develop prioritized differential diagnoses, evidence-based diagnostic and therapeutic plan for common inpatient and ambulatory conditions	32	
	Modify differential diagnosis and care plan based on clinical course and data as appropriate	32	
	Recognize disease presentations that deviate from common patterns and that require complex decision making	48	

	<i>Invasive procedures</i>		
	Appropriately perform invasive procedures and provide post-procedure management for common procedures	24	<ul style="list-style-type: none"> • Simulation • Direct observation
B. Delivery of patient-centered clinical care <ul style="list-style-type: none"> • Manage patients with progressive responsibility • Manage patients across the spectrum of clinical diseases seen in the practice of general internal medicine • Manage patients in a variety of health care settings to include the inpatient ward, critical care units, the ambulatory setting ,and the emergency setting • Manage undifferentiated acutely and severely ill patients • Manage patients in the prevention, counseling, detection, diagnosis, and treatment of gender-specific diseases • Manage patients as a consultant to other physicians 	<i>Diagnostic tests</i>		
	Make appropriate clinical decisions based on the results of common diagnostic testing including but not limited to routine blood chemistries, hematologic studies, coagulation tests, arterial blood gases, ECG, chest radiographs, pulmonary function tests, urinalysis and other body fluids	16	<ul style="list-style-type: none"> • Chart-stimulated recall • Standardized tests • Clinical vignettes
	Make appropriate clinical decision based on the results of more advanced diagnostic tests	24	
	<i>Patient management</i>		
	Recognize situations with a need for urgent or emergent medical care, including life-threatening conditions	8	<ul style="list-style-type: none"> • Simulation • Chart-stimulated recall • Multisource feedback
	Recognize when to seek additional guidance	8	

	Provide appropriate preventive care and teach patient regarding self-care	8	<ul style="list-style-type: none">• Direct observation• Chart audit
	With supervision, manage patients with common clinical disorders seen in the practice of inpatient and ambulatory general internal medicine	16	
	With minimal supervision, manage patients with common and complex clinical disorders seen in the practice of inpatient and ambulatory general internal medicine	16	
	Initiate management and stabilize patients with emergent medical conditions	16	
	Manage patients with conditions that require intensive care	48	
	Independently manage patients with a broad spectrum of clinical disorders seen in the practice of general internal medicine	48	
	Manage complex or rare medical conditions	48	
	Customize care in the context of the patient's preferences and overall health	48	
	Consultative care		
	Provide specific, responsive consultation to other services	32	<ul style="list-style-type: none">• Simulation• Chart-stimulated recall• Multisource feedback• Direct observation• Chart audit
	Provide internal medicine consultation for patients with more complex clinical problems requiring detailed risk assessment	48	

Table-2 Developmental Milestones for Infectious diseases Training—Medical Knowledge			
Competency	Developmental Milestones Informing Competencies	Approximate Time Frame Trainee Should Achieve Stage (months)	General Evaluation Strategies Assessment Methods/ Tools
<p>A. Core knowledge of general Infectious diseases and its subspecialties</p> <ul style="list-style-type: none"> • Demonstrate a level of expertise in the knowledge of those areas appropriate for an internal medicine specialist • Demonstrate sufficient knowledge to treat medical conditions commonly managed by internists, provide basic preventive care, and recognize and provide initial management of emergency medical problems 	<i>Knowledge of core content</i>		
	Understand the relevant pathophysiology and basic science for common medical conditions	8	<ul style="list-style-type: none"> • Direct observation • Chart audit • Chart-stimulated recall • Standardized tests
	Demonstrate sufficient knowledge to diagnose and treat common conditions that require hospitalization	16	
	Demonstrate sufficient knowledge to evaluate common ambulatory conditions	24	
	Demonstrate sufficient knowledge to diagnose and treat undifferentiated and emergent conditions	24	
	Demonstrate sufficient knowledge to provide preventive care	24	
	Demonstrate sufficient knowledge to identify and treat medical conditions that require intensive care	32	
	Demonstrate sufficient knowledge to evaluate complex or rare medical conditions and multiple coexistent conditions	48	
	Understand the relevant pathophysiology and basic science for uncommon or complex medical conditions	48	
<p>B. Common modalities used in the practice of internal & medicine demonstrate sufficient knowledge to interpret basic clinical tests and images ,use common pharmacotherapy, and appropriately use and perform diagnostic and therapeutic procedures.</p>	Demonstrate sufficient knowledge of socio behavioral sciences including but not limited to health care economics, medical ethics, and medical education	48	

	Diagnostic tests		
	Understand indications for and basic interpretation of common diagnostic testing ,including but not limited to routine blood chemistries, hematologic studies, coagulation tests, arterial blood gases, ECG, chest radiographs ,pulmonary function tests, urinalysis, and other body fluids	16	<ul style="list-style-type: none"> • Chart-stimulated recall • Standardized tests • Clinical vignettes
	Understand indications for and has basic skills in interpreting more advanced diagnostic tests	24	
	Understand prior probability and test performance characteristics	24	

Table-3 Developmental Milestones for Infectious diseases Training—Practice-Based Learning and Improvement			
Competency	Developmental Milestones Informing Competencies	Approximate Time Frame Trainee Should Achieve Stage (months)	General Evaluation Strategies Assessment Methods/ Tools
A. Learning and improving via audit of & performance Systematic ally analyze practice using quality improvement methods, and implement changes with the goal of practice improvement	Improve the quality of care for a panel of patients		
	Appreciate the responsibility to assess and improve care collectively for a panel of patients	16	<ul style="list-style-type: none"> • Several elements of quality improvement project • Standardized tests
	Perform or review audit of a panel of patients using standardized, disease-specific, and evidence-based criteria	32	
	Reflect on audit compared with local or national benchmarks and explore possible explanations for deficiencies, including doctor- related, system-related, and patient related factors	32	
	Identify areas in resident's own practice and local system that can be changed to improve effect to the processes and outcomes of care	48	
	Engage in a quality improvement intervention	48	

B. LEARNING and improvement via answering clinical questions from patient scenarios <ul style="list-style-type: none">• Locate, appraise, and assimilate evidence from scientific studies related to their patients' health problems;• Use information technology to optimize learning	<i>Ask answerable questions for emerging information needs</i>		
	Identify learning needs(clinical questions) as they emerge inpatient care activities	16	<ul style="list-style-type: none">• Evidence-based medicine evaluation• instruments EBM mini-CEX• Chart-stimulated recall
	Classify and precisely articulate clinical questions	32	
	Develop a system to track, pursue and reflect on clinical questions	32	
	<i>Acquires the best evidence</i>		
	Access medical information resources to answer clinical questions and support decision making	16	<ul style="list-style-type: none">• Evidence-based medicine evaluation• instruments EBM mini-CEX• Chart-stimulated recall
	Effectively and efficiently search NLM database for original clinical research articles	16	
	Effectively and efficiently search evidence-based summary medical information resources	32	
	Appraise the quality of medical information resources and select among them based on the characteristics of the clinical question	48	
	<i>Appraises the evidence for validity and usefulness</i>		
	With assistance, appraise study design, conduct, and statistical analysis in clinical research papers	16	<ul style="list-style-type: none">• Evidence-based medicine evaluation• instruments EBM mini-CEX• Chart-stimulated recall
	With assistance, appraise clinical guidelines	32	
	Independently appraise study design, conduct, and statistical analysis in clinical research papers	48	
	Independently, appraise clinical guideline recommendations for bias and cost-benefit considerations	48	

	<i>Applies the evidence to decision-making for individual patients</i>		
	Determine if clinical evidence can be generalized to an individual patient	16	<ul style="list-style-type: none">Evidence-based medicine evaluationinstruments EBM mini-CEXChart-stimulated recall
	Customize clinical evidence for an individual patient	32	
	Communicate risks and benefits of alternatives to patients	48	
	Integrate clinical evidence, clinical context, and patient preferences into decision making	48	
C. Learning and improving via feedback and self-assessment <ul style="list-style-type: none">Identify strengths, deficiencies and limits in one’s knowledge and expertiseSet learning and improvement goalsIdentify and perform appropriate learning activitiesIncorporate formative evaluation feedback into daily practiceParticipate in the education of patients, families, students, residents, and other health professionals	<i>Improves via feedback</i>		
	Respond welcomingly and productively to feedback from all members of the health care team including faculty, peer residents, students, nurses, allied health workers, patients, and their advocates	16	<ul style="list-style-type: none">Multisource feedbackSelf-evaluation forms with action plans
	Actively seek feedback from all members of the health care team	24	
	Calibrate self-assessment with feedback and other external data	32	
	Reflection feedback in developing plans for improvement	32	
	<i>Improves via self-assessment</i>		
	Maintain awareness of the situation in the moment and respond to meet situational needs	32	<ul style="list-style-type: none">Multisource feedbackReflective practice surveys
	Reflect (inaction) when surprised, applies new insights to future clinical scenarios and reflects (on action) back on the process	48	
	<i>Participates in the education of all members of the health care team</i>		
	Actively participate in teaching conferences	16	<ul style="list-style-type: none">OSCE with standardized learners Direct observationPeer evaluations
	Integrate teaching, feedback, and evaluation with supervision of interns’ and students’ patient care	32	
	Take a leadership role in the education of all members of the health care team.	48	

Table-4 Developmental Milestones for Infectious diseases Training—Interpersonal and Communication Skills

Competency	Developmental Milestones Informing Competencies	Approximate Time Frame Trainee Should Achieve Stage (months)	General Evaluation Strategies Assessment Methods/ Tools
A. Patients and family Communicate effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds	Communicate effectively		
	Provide timely and comprehensive verbal and written communication to patients/advocates	16	<ul style="list-style-type: none">• Multisource feedback• Patient surveys• Direct observation• Mentored self- reflection
	Effectively use verbal and nonverbal skills to create rapport with patients/families	16	
	Use communication skills to build a therapeutic relationship		
	Engage patients/advocates in shared decision making for uncomplicated diagnostic and therapeutic scenarios	32	
	Use patient-centered education strategies	32	
	Engage patients/advocates in shared decision making for difficult, ambiguous, or controversial scenarios	48	
	Appropriately counsel patients about the risks and benefits of tests and procedures, highlighting cost awareness and resource allocation	48	
	Role model effective communication skills in challenging situations	48	
	Intercultural sensitivity		
	Effectively use an interpreter to engage patients in the clinical setting, including patient education	8	<ul style="list-style-type: none">• Multisource feedback• Direct observation• Mentored self- reflection
	Demonstrate sensitivity to differences in patients including but not limited to race, culture, gender, sexual orientation, socioeconomic status, literacy, and religious beliefs	16	
	Actively seek to understand patient difference sand views and reflects this in respectful communication and shared decision-making with the patient and the health care team	40	

	<i>Transitions of care</i>		
B. Physicians and other health care professionals <ul style="list-style-type: none">Communicate effectively with physicians, other health professionals, and health-related agenciesWork effectively as a member or leader of a health care team or other professional groupAct in a consultative role to other physicians and health professionals	Effectively communicate with other care givers in order to maintain appropriate continuity during transitions of care	16	<ul style="list-style-type: none">Multisource feedbackDirect observationSign-out form ratingsPatient surveys
	Role model and teach effective communication with next care givers during transitions of care	32	
	<i>Inter professional team</i>		
	Deliver appropriate, succinct, hypothesis-driven oral presentations	8	<ul style="list-style-type: none">Multisource feedback
	Effectively communicate plan of care to all members of the health care team	16	
	Engage in collaborative communication with all members of the health care team	40	
	<i>Consultation</i>		
	Request consultative services in an effective manner	8	<ul style="list-style-type: none">Multisource feedbackChart audit
	Clearly communicate the role of consultant to the patient, in support of the primary care relationship	16	
	Communicate consultative recommendations to the referring team in an effective manner	48	
C. Medical records <ul style="list-style-type: none">Maintain comprehensive, timely, and legible medical records	<i>Health records</i>		
	Provide legible, accurate, complete, and timely written communication that is congruent with medical standards	8	<ul style="list-style-type: none">Chart audit
	Ensure succinct, relevant, and patient-specific written communication	32	

Table-5 Developmental Milestones for Infectious diseases Training— Professionalism

Competency	Developmental Milestones Informing Competencies	Approximate Time Frame Trainee Should Achieve Stage (months)	General Evaluation Strategies Assessment Methods/ Tools
A. <u>Physician ship</u> <ul style="list-style-type: none">• Demonstrate compassion, integrity, and respect for others• Responsiveness to patient needs that supersedes self-interest• Account- ability to patients, society and the profession	<i>Adhere to basic ethical principles</i>		
	Document and report clinical information truthfully	1.5	<ul style="list-style-type: none">• Multisource feedback
	Follow formal policies	1.5	
	Accept personal errors and honestly acknowledge them	8	
	Uphold ethical expectations of research and scholarly activity	8	
	<i>Demonstrate compassion and respect to patients</i>		
	Demonstrate empathy and compassion to all patients	4	<ul style="list-style-type: none">• Multisource feedback
	Demonstrate a commitment to relieve pain and suffering	4	
	Provide support (physical, psychological, social, and spiritual) for dying patients and their families	3	
		2	
	autonomy	2	
	<i>Provide timely, constructive feedback to colleagues</i>		
	Communicate constructive feedback to other members of the healthcare team	16	<ul style="list-style-type: none">• Multisource feedback• Mentored self-reflection• Direct observation
	Recognize, respond to, and report impairment in colleagues or substandard care via peer review process	24	
	<i>Maintain accessibility</i>		
	Respond promptly and appropriately to clinical responsibilities including but not limited to calls and pages	1.5	<ul style="list-style-type: none">• Multisource feedback
	Carry out timely inter actions with colleagues, patients and their designated care givers	8	

	Recognize conflicts of interest		
	Recognize and manage obvious conflicts of interest, such as caring for family members and professional associates as patients	8	<ul style="list-style-type: none">• Multisource feedback• Mentored self-reflection• Clinical vignettes
	Maintain ethical relationships with industry	0	
	Recognize and manage subtler conflicts of interest	40	
	Demonstrate personal accountability		
	Dress and behave appropriately	1.5	<ul style="list-style-type: none">• Multisource feedback• Direct observation
	Maintain appropriate professional relationships with patients, families and staff	1.5	
	Ensure prompt completion of clinical, administrative, and curricular tasks	8	
	Recognize and address personal, psychological, and physical limitations that may affect professional performance	16	
	Recognize the scope of his/her abilities and ask for supervision and assistance appropriately	16	
	Serve as a professional role model for more junior colleagues (eg, medical students ,interns)	40	
	Recognize the need to assist colleagues in the provision of duties	0	
	Practice individual patient advocacy		
	Recognize when it is necessary to advocate for individual patient needs	8	<ul style="list-style-type: none">• Multisource feedback• Direct observation
	Effectively advocate for individual patient needs	40	
Comply with public health policies			
Recognize and take responsibility for situations where public health supersedes individual health (eg, reportable infectious diseases)	32	<ul style="list-style-type: none">• Multisource feedback	
B. Patient-centeredness <ul style="list-style-type: none">• Respect for patient privacy and autonomy• sensitivity and responsiveness to a diverse patient population including but not limited to diversity in gender, age, culture, race, religion, disabilities and sexual orientation	Respect the dignity, culture, beliefs, values, and opinions of the patient		
	Treat patients with dignity, civility and respect, regard less of race, culture, gender, ethnicity, age, or socio economic status	1.5	<ul style="list-style-type: none">• Multisource feedback• Direct observation
	Recognize and manage conflict when patient values differ from their own	40	

	Confidentiality		
	Maintain patient confidentiality	1.5	<ul style="list-style-type: none">• Multisource feedback• Chart audits
	Educate and hold others accountable for patient confidentiality	24	
	Recognize and address disparities in health care		
	Recognize that disparities exist in healthcare among populations and that they may impact care of the patient	16	<ul style="list-style-type: none">• Multisource feedback• Direct observation• Mentored self-reflection
	Embrace physicians' role in assisting the public and policy makers in understanding and addressing causes of disparity in disease and suffering	40	
	Advocates for appropriate allocation of limited health care resources.	40	

Table-6 Developmental Milestones for Infectious diseases Training— Systems-Based Practice			
Competency	Developmental Milestones Informing Competencies	Approximate Time Frame Trainee Should Achieve Stage (months)	General Evaluation Strategies Assessment Methods/ Tools
A. <u>Work effectively with other care providers and settings</u> <ul style="list-style-type: none"> • Work effectively in various health care delivery settings and systems relevant to their clinical practice 	<i>Works effectively within multiple health delivery systems</i>		
	Understand unique roles and services provided by local health care delivery systems.	16	<ul style="list-style-type: none"> • Multisource feedback • Chart-stimulated recall • Direct observation
	Manage and coordinate care and care transitions across multiple delivery systems, including ambulatory, sub-acute, acute, rehabilitation, and skilled nursing.	32	
	Negotiate patient-centered care among multiple care providers.	48	

<ul style="list-style-type: none">• Coordinate patient care within the health care system relevant to their clinical specialty• Work in inter professional teams to enhance patient safety and improve patient care quality• Work in teams and effectively transmit necessary clinical information to ensure safe and proper care of patients, including the transition of care between settings	Works effectively within an inter professional team			<ul style="list-style-type: none">• Multisource feedback• Chart-stimulated recall• Direct observation
	Appreciate roles of a variety of health care providers, including but not limited to consultants, therapists, nurses, home care workers, pharmacists, and social workers.	8		
	Work effectively as a member within the inter professional team to ensure safe patient care	8		
	Consider alternative solutions provided by other teammates	16		
	Demonstrate how to manage the team by using the skills and coordinating the activities of inter professional team members.	48		
B. <u>Improving health care delivery</u> <ul style="list-style-type: none">• Advocate for quality patient care and optimal patient care systems• Participate in identifying system errors and implementing potential systems solutions• Recognize and function effectively in high-quality care system	Recognizes system error and advocates for system improvement			<ul style="list-style-type: none">• Multisource feedback• Quality improvement project
	Recognize health system forces that increase the risk for error including barriers to optimal patient care	16		
	Identify, reflection and learn from critical incidents such as near misses and preventable medical errors	16		
	Dialogue with care team members to identify risk for and prevention of medical error	32		
	Understand mechanisms for analysis and correction of systems errors	32		
	Demonstrate ability to understand and engage in a system-level quality improvement intervention.	48		
	Partner with other healthcare professionals to identify, propose improvement opportunities within the system.	48		

C. <u>Cost-effective care for patients and populations</u> & Incorporate considerations of cost awareness and risk-benefit analysis in patient and/or population- based care as appropriate	Identifies forces that impact the cost of health care and advocates for cost-effective care		
	Reflect awareness of common socioeconomic barriers that impact patient care.	16	<ul style="list-style-type: none">• Standardized examinations• Direct observation• Chart-stimulated recall
	Understand how cost-benefit analysis is applied to patient care (ie, via principles of screening tests and the development of clinical guidelines)	16	
	Identify the role of various health care stakeholders including providers, suppliers, financiers, purchasers, and consumers and their varied impact on the cost of and access to healthcare.	32	
	Understand coding and reimbursement principles.	32	
	Practices cost-effective care		
	Identify costs for common diagnostic or Therapeutic tests.	8	<ul style="list-style-type: none">• Chart-stimulated recall
	Minimize unnecessary care including tests, procedures, therapies, and ambulatory or hospital encounters	8	
	Demonstrate the incorporation of cost-awareness principles into standard clinical judgments and decision making	24	
	Demonstrate the incorporation of cost-awareness principles into complex clinical scenarios	48	

LIST OF ROTATIONS/ELECTIVES FOR MD INFECTIOUS DISEASES

ROTATION 1: INTENSIVE CARE UNIT (ICU)

ROTATION 2: CLINICAL MICROBIOLOGY

ROTATION 3: COMMUNITY MEDICINE

ROTATION 4: RESEARCH ELECTIVE

ROTATION-1

LOG OF INTENSIVE CARE UNIT (ICU)

The critical care rotation is a one-month rotation in which the principles of critical care medicine and evaluation and treatment of critically ill patients are emphasized. Residents are required to complete three rotations during their three years of training; ideally, one rotation each year. Critical illness does not respect socioeconomic boundaries, however, many critically ill patients do present with additional complications of substance abuse or lack of timely medical care. Ethical issues concerning the intensity of care are often encountered. The appropriate environmental precautions and hazards are frequently discussed when isolation of patients is required. Aspects of care unique to the intensive care unit are also emphasized. All aspects of critical illness may be evaluated and managed by residents on this rotation. Particular emphases include:

- Consultation and management of critically ill patients.
- Ventilator and airway management
- Management of acute respiratory failure, including adult respiratory distress syndrome.
- Systemic inflammatory response states, including sepsis.
- Nutrition in the critically ill patient.
- Interventions to decrease the risk of secondary complications in the critically ill patient.

REFERENCE:

https://www.utcomchatt.org/docs/IM_Critical_Care_08_Curriculum.pdf

SECTION-1

**MORNING REPORT PRESENTATION/ CASE PRESENTATION SEEN IN LAST EMERGENCY OR INDOOR (2
per month)**

SR#	DATE	REG# OF PATIE NT	BRIEF DESCRIPTION//HISTORY, DIAGNOSIS,TREATMENT & OUTCOME IF ANY	SUPERVISO R'S REMARKS	SUPERVISO R'S SIGNATURE (Name/Stamp)

[illegible]

[illegible]

SECTION-2

TOPIC PRESENTATION/SEMINAR

(1 per month)

[illegible]

SR #	DATE	NAME OF THE TOPIC & BRIEF DETAILS OF THE ASPECTS COVERED	SUPERVISOR'S REMARKS	SUPERVISOR'S SIGNATURE (Name/Stamp)

SECTION-3**JOURNAL CLUB**

(1per month)

SR#	DATE	TITLE OF THE ARTICLE	NAME OF JOURNAL	DATE OF PUBLICATION	SUPERVISOR'S REMARKS	SUPERVISOR'S SIGNATURE (Name/Stamp)

SR#	DATE	TITLE OF THE ARTICLE	NAME OF JOURNAL	DATE OF PUBLICATION	SUPERVISOR'S REMARKS	SUPERVISOR'S SIGNATURE (Name/Stamp)

SECTION-4**PROBLEM CASE DISCUSSION**

(2 per month)

SR #	DATE	REG.# OF THE PATIENT DISCUSSED	BRIEF DESCRIPTION//HISTORY, DIAGNOSIS,TREATMENT & OUTCOME IF ANY	SUPERVISOR'S REMARKS	SUPERVISOR'S SIGNATURE (Name/Stamp)

SR #	DATE	REG.# OF THE PATIENT DISCUSSED	BRIEF DESCRIPTION//HISTORY, DIAGNOSIS,TREATMENT & OUTCOME IF ANY	SUPERVISOR'S REMARKS	SUPERVISOR'S SIGNATURE (Name/Stamp)

SECTION-5**DIDACTIC LECTURE/INTERACTIVE LECTURES ATTENDED**

SR #	DATE	REG.# OF THE PATIENT DISCUSSED	BRIEF DESCRIPTION//HISTORY, DIAGNOSIS,TREATMENT & OUTCOME IF ANY	SUPERVISOR'S REMARKS	SUPERVISOR'S SIGNATURE (Name/Stamp)

[illegible]

[illegible]

[illegible]

SECTION-6**EMERGENCY CASES**

(Estimated cases to be documented are 50 patients per rotation)

SR#	DATE	REG # OF THE PATIENT	BRIEF DESCRIPTION/HISTORY, DIAGNOSIS,TREATMENT & OUTCOME IF ANY	PROCEDU RES PERFORME D	SUPERVISO R'S REMARKS	SUPERVISO R'S SIGNATURE (Name/Stamp)

SR#	DATE	REG # OF THE PATIE NT	BRIEF DESCRIPTION/HISTORY, DIAGNOSIS,TREATMENT & OUTCOME IF ANY EMENT	PROCEDU RES PERFORME D	SUPERVISO R'S REMARKS	SUPERVISO R'S SIGNATURE (Name/Stamp)

SR#	DATE	REG # OF THE PATIE NT	BRIEF DESCRIPTION/HISTORY, DIAGNOSIS,TREATMENT & OUTCOME IF ANY	PROCEDU RES PERFORME D	SUPERVISO R'S REMARKS	SUPERVISO R'S SIGNATURE (Name/Stamp)

SECTION-7**INDOOR PATIENTS**

((Estimated cases to be attended 8 patients per month))

SR#	DATE	REG # OF THE PATIENT	DIAGNOSIS	MANAGEMENT	PROCEDU RES PERFORME D	SUPERVISO R'S REMARKS	SUPERVISO R'S SIGNATURE (Name/Stamp)

[illegible]

SR#	DATE	REG # OF THE PATIENT	DIAGNOSIS	MANAGEMENT	PROCEDU RES PERFORME D	SUPERVISO R'S REMARKS	SUPERVISO R'S SIGNATURE (Name/Stamp)

[illegible]

SECTION-8**MEDICAL PROCEDURES****(OBSERVED (O), ASSISTED (A), PERFORMED UNDER SUPERVISION (PUS) & PERFORMED INDEPENDENTLY (PI)****(Estimated cases to be seen are minimum 15 cases per rotation)**

SR.#	DATE	REG NO. OF PATIENT	NAME OF PROCEDURE	(O)/(A)/(P US))/(PI)	DETAIL OF PROCEDURE	PLACE OF PROCEDURE	SUPERVISOR'S REMARKS	SUPERVISOR'S SIGNATURE (Name/Stamp)

SR.#	DATE	REG NO. OF PATIE NT	NAME OF PROCEDU RE	(O)/(A)/(PUS)/(P I)	DETAIL OF PROCEDURE	PLACE OF PROCEDU RE	SUPERVISO R'S REMARKS	SUPERVISO R'S SIGNATURE (Name/Stamp)

SR.#	DATE	REG NO. OF PATIENT	NAME OF PROCEDURE	(O)/(A)/(P US)/(PI)	DETAIL OF PROCEDURE	PLACE OF PROCEDURE	SUPERVISOR'S REMARKS	SUPERVISOR'S SIGNATURE (Name/Stamp)

SR.#	DATE	REG NO. OF PATIENT	NAME OF PROCEDURE	(O)/(A)/(P US)/(PI)	DETAIL OF PROCEDURE	PLACE OF PROCEDURE	SUPERVISOR'S REMARKS	SUPERVISOR'S SIGNATURE (Name/Stamp)

SR.#	DATE	REG NO. OF PATIE NT	NAME OF PROCEDU RE	(O)/(A)/(P US)/(PI)	DETAIL OF PROCEDURE	PLACE OF PROCEDU RE	SUPERVISO R'S REMARKS	SUPERVISO R'S SIGNATURE (Name/Stamp)

SR.#	DATE	REG NO. OF PATIE NT	NAME OF PROCEDU RE	(O)/(A)/(P US)/(PI)	DETAIL OF PROCEDURE	PLACE OF PROCEDU RE	SUPERVISO R'S REMARKS	SUPERVISO R'S SIGNATURE (Name/Stamp)

SECTION-9

CONSULTATIONS

[illegible]

[illegible]

[illegible]

SECTION-10

MULTI DISCIPLINARY MEETINGS (MDM)

(Estimated minimum Multi-Disciplinary Meetings 1per month)

[illegible]

[illegible]

SECTION-11

CLINICOPATHOLOGICAL CONFERENCE (CPC)

(50% attendance of CPC is mandatory for the resident)

[illegible]

SR#	DATE	BRIEF DESCRIPTION OF THE TOPIC/CASE DISCUSSED	SUPERVISOR'S SIGNATURE (NAME/STAMP)

SECTION-12**MORBIDITY/MORTALITY MEETINGS (MMM)**

(Total Morbidity/Mortality Meetings to be attended TWO Morbidity/Mortality Meetings per month)

SR#	DATE	REG. # OF THE PATIENT DISCUSSED	BRIEF DESCRIPTION OF THE CASE	SUPERVISOR'S REMARKS	SUPERVISOR'S SIGNATURE (Name/Stamp)

[illegible]

SECTION-13

HANDS ON TRAINING/WORKSHOPS

[illegible]

[illegible]

SECTION-14

PUBLICATIONS (if any)

[illegible]

SECTION-15

WRITTEN ASSESSMENT RECORD OF THIS ROTATION

[illegible]

[illegible]

SECTION-16

CLINICAL ASSESSMENT RECORD OF THIS ROTATION

[illegible]

[illegible]

SECTION-17**EVALUATION RECORDS*****SUPERVISOR APPRAISAL FORM***

Resident's Name: _____ Hospital Name: _____

Evaluator's Name(s): _____ Department: _____ Unit : _____

1. Use one of the following ratings to describe the performance of the individual in each of the categories.

1	Unsatisfactory	Performance does not meet expectations for the job
2	Needs Improvement	Performance sometimes meets expectations for the job
3	Good	Performance often exceeds expectations for the job
4	Merit	Performance consistently meets expectations for the job
5	Special Merit	Performance consistently exceeds expectations for the job

I. CLINICAL KNOWLEDGE / TECHNICAL SKILLS

	5	4	3	2	1
a) Clinical Knowledge is up to the mark					
b) Follows procedures and clinical methods according to SOPs					
c) Uses techniques, materials, tools & equipment skillfully					
d) Stays current with technology and job-related expertise					
e) Works efficiently in various workshops					
f) Has interest in learning new skills and procedures					
g) Understands & performs assigned duties and job requirements					

II. QUALITY / QUANTITY OF WORK

	5	4	3	2	1
a) Sets and adheres to protocols and improving the skills					
b) Exhibits system based learning methods smartly					
c) Exhibits practice based learning methods efficaciously					
d) Actively participates in large group interactive sessions for postgraduate trainees					
e) Actively takes part in morning & evening teaching and learning sessions & noon conferences					
f) Actively takes part in Multidisciplinary Clinic & Pathological Conferences (CPC)					
g) Actively participates in Journal clubs					
h) Uses resources sensibly and economically					
i) Accomplishes accurate management of different medical cases with minimal assistance or supervision					

j) Provides best possible patient care					
III. INITIATIVE / JUDGMENT	5	4	3	2	1
a) Takes effective action without being told					
b) Analyzes different emergency cases and suggests effective solutions					
c) Develops realistic plans to accomplish assignments					
IV. DEPENDABILITY / SELF-MANAGEMENT	5	4	3	2	1
a) Demonstrates punctuality and regularly begins work as scheduled					
b) Contacts supervisor concerning absences on a timely basis					
c) Contacts supervisor without any delay regarding any difficulty in managing any patient					
d) Can be depended upon to be available for work independently					
e) Manages own time effectively					
f) Manages Outdoor Patient Department (OPD) efficiently					
g) Accepts responsibility for own actions and ensuing results					
h) Demonstrates commitment to service					
i) Shows Professionalism in handling patients					
j) Offers assistance, is courteous and works well with colleagues					
k) Is respectful with the seniors					
OVERALL RATINGS/SUGGESTIONS/SUPERVISOR'S REMARKS REGARDING PERFORMANCE OF THE TRAINEE					

Total Score_____/155

Date

Resident's Name &Signatures

Date

Evaluator's Signature &Stamp

SECTION-18

EVALUATION/REMARKS BY UNIVERSITY TRAINING MONITORING CELL (UTMC) WORKING UNDER DEPARTMENT OF MEDICAL EDUCATION (DME)

SECTION-18

**EVALUATION/REMARKS BY QUALITY ENHANCEMENT CELL (QEC) WORKING UNDER DEPARTMENT OF MEDICAL
EDUCATION (DME)**

SECTION-19

RECORD SHEET OF ATTENDANCE/COUNCELLING SESSION/DOCUMENTATION QUALITY PER ROTATION

TO BE FILLED AT THE END OF ROTATION

MONTH	ATTENDANCE RECORD				DOCUMENTATION QUALITY					COUNCELLING SESSION			SUPERVISOR'S REMARKS SIGNATURE (Name/Stamp)
		TOTAL	ATTENDED	%	Poor	Average	Good	V. Good	Excellent	YES	NO	IF YES THEN NUMBER OF SESSIONS	
January	WARD												
	CPC												
	LECTURE												
	WORKSHO P												

MONTH	ATTENDANCE RECORD				DOCUMENTATION QUALITY					COUNCELLING SESSION			SUPERVISOR'S REMARKS SIGNATURE (Name/Stamp)
		TOTAL	ATTENDED	%	Poor	Average	Good	V. Good	Excellent	YES	NO	IF YES THEN NUMBER OF SESSIONS	
February	WARD												
	CPC												
	LECTURE												
	WORKSHO P												

MONTH	ATTENDANCE RECORD				DOCUMENTATION QUALITY					COUNCELLING SESSION			SUPERVISOR'S REMARKS SIGNATURE (Name/Stamp)
		TOTAL	ATTENDED	%	Poor	Average	Good	V. Good	Excellent	YES	NO	IF YES THEN NUMBER OF SESSIONS	
March	WARD												
	CPC												

	CPC												
	LECTURE												
	WORKSH OP												

MONTH	ATTENDANCE RECORD				DOCUMENTATION QUALITY					COUNCELLING SESSION			SUPERVISOR'S REMARKS SIGNATURE (Name/Stamp)
		TOTAL	ATTENDED	%	Poor	Average	Good	V. Good	Excellent	YES	NO	IF YES THEN NUMBER OF SESSIONS	
July	WARD												
	CPC												
	LECTURE												
	WORKSH OP												

MONTH	ATTENDANCE RECORD				DOCUMENTATION QUALITY					COUNCELLING SESSION			SUPERVISOR'S REMARKS SIGNATURE (Name/Stamp)
		TOTAL	ATTENDED	%	Poor	Average	Good	V. Good	Excellent	YES	NO	IF YES THEN NUMBER OF SESSIONS	
August	WARD												
	CPC												
	LECTURE												
	WORKSH OP												

MONTH	ATTENDANCE RECORD				DOCUMENTATION QUALITY					COUNCELLING SESSION			SUPERVISOR'S REMARKS SIGNATURE (Name/Stamp)
		TOTAL	ATTENDED	%	Poor	Average	Good	V. Good	Excellent	YES	NO	IF YES THEN NUMBER OF	

												SESSIONS	
September	WARD												
	CPC												
	LECTURE												
	WORKSH OP												

MONTH	ATTENDANCE RECORD				DOCUMENTATION QUALITY					COUNCELLING SESSION			SUPERVISOR'S REMARKS SIGNATURE (Name/Stamp)
		TOTAL	ATTENDED	%	Poor	Average	Good	V. Good	Excellent	YES	NO	IF YES THEN NUMBER OF SESSIONS	
October	WARD												
	CPC												
	LECTURE												
	WORKSHOP												

MONTH	ATTENDANCE RECORD				DOCUMENTATION QUALITY					COUNCELLING SESSION			SUPERVISOR'S REMARKS SIGNATURE (Name/Stamp)
		TOTAL	ATTENDED	%	Poor	Average	Good	V. Good	Excellent	YES	NO	IF YES THEN NUMBER OF SESSIONS	
November	WARD												
	CPC												
	LECTURE												
	WORKSHOP												

MONTH	ATTENDANCE RECORD				DOCUMENTATION QUALITY					COUNCELLING SESSION			SUPERVISOR'S REMARKS SIGNATURE (Name/Stamp)
		TOTAL	ATTENDED	%	Poor	Average	Good	V. Good	Excellent	YES	NO	IF YES THEN NUMBER OF SESSIONS	
December	WARD												
	CPC												
	LECTURE												
	WORKSHOP												

SECTION-20

ANY OTHER IMPORTANT AND RELEVANT INFORMATION/DETAILS

LEAVE RECORD

(Signed & Approved Leave Application/Certificate to Be Kept In Record and To Be Brought In Meetings with URTMC & QEC)

[illegible]

ROTATION-2

LOG OF CLINICAL MICROBIOLOGY

The training experience with clinical microbiology is a rotation that takes place in the clinical microbiology. The resident are expected to be available from Monday to Friday 8am to 5pm with exceptions for clinic assignment during this time residents participate in structured rotations at different benches in the clinical microbiology laboratory including primary plating, sub culturing, susceptibility, testing, blood cultures, respiratory, urine, miscellaneous, anaerobes, mycology, mycobacteriology , parasitology, virology, and molecular microbiology. They learn from the medical technologist the basic principles and practices in clinical microbiology and the capabilities of our laboratory. Resident are also expected to participate in daily microbiology laboratory rounds with the laboratory directors. Current problems, unusual findings, instructive examples are the basis for discussion at laboratory rounds. Laboratory rounds also include discussion of the integration of the microbiology laboratory into the health care system and the prevention of system errors. Resident actively contributes to developing solutions and problems solving in this arena. In addition resident should the weekly clinical pathology conference. This case based conference integrates all areas of laboratory medicines.

The level of competence to be achieved each year is specified according to the key, as follows:

1. Observer status
2. Assistant status
3. Performed under supervision
4. Performed under indirect supervision
5. Performed independently

Note: Levels 4 and 5 for practical purposes are almost synonymous

Section-1**MORNING REPORT PRESENTATION/ CASE PRESENTATION SEEN IN LAST EMERGENCY OR INDOOR)
(2/month)**

SR#	DATE	REG# OF PATIE NT	BRIEF DESCRIPTION//HISTORY, SAMPLE COLLECTED , TEST PERFORMED, DIAGNOSIS,TREATMENT & OUTCOME IF ANY	SUPERVISOR'S REMARKS	SUPERVISOR'S SIGNATURE (NAME/STAMP)

SR#	DATE	REG# OF PATIE NT	BRIEF DESCRIPTION//HISTORY, SAMPLE COLLECTED, TEST PERFORMED, DIAGNOSIS,TREATMENT & OUTCOME IF ANY	SUPERVISOR'S REMARKS	SUPERVISOR 'S SIGNATURE (NAME/STAM P)

SR#	DATE	REG# OF PATIE NT	BRIEF DESCRIPTION//HISTORY, SAMPLE COLLECTED, TEST PERFORMED, DIAGNOSIS DIAGNOSIS,TREATMENT & OUTCOME IF ANY	SUPERVISOR'S REMARKS	SUPERVISOR 'S SIGNATURE (NAME/STAM P)

Section-2

TOPIC PRESENTATION/SEMINAR (1/month)

[illegible]

[illegible]

Section-3

JOURNAL CLUB (1/month)

SR#	DATE	TITLE OF THE ARTICLE	NAME OF JOURNAL	DATE OF PUBLICATION	SUPERVISOR'S REMARKS	SUPERVISOR'S SIGNATURE (NAME/STAMP)

SR#	DATE	TITLE OF THE ARTICLE	NAME OF JOURNAL	DATE OF PUBLICATI ON	SUPERVISO R'S REMARKS	SUPERVISOR 'S SIGNATURE (NAME/STAM P)

Section-4**PROBLEM CASE DISCUSSION (2/month)**

SR #	DATE	REG.# OF THE PATIENT DISCUSSED	BRIEF DESCRIPTION//HISTORY, SAMPLE COLLECTED, TEST PERFORMED, DIAGNOSIS,TREATMENT & OUTCOME IF ANY	SUPERVISOR'S REMARKS	SUPERVISOR'S SIGNATURE (NAME/STAMP)

[illegible]

Section-5**DIDACTIC LECTURE/INTERACTIVE LECTURES ATTENDED**

SR #	DATE	TOPIC & BRIEF DESCRIPTION	NAME OF THE TEACHER	SUPERVISOR'S REMARKS	SUPERVISOR'S SIGNATURE (NAME/STAMP)

[illegible]

Section-6**EMERGENCY CASES**

(Estimated 25 cases to be documented)

SR#	DATE	REG # OF THE PATIENT	BRIEF DESCRIPTION//HISTORY, SAMPLE COLLECTED, TEST PERFORMED,DIAGNOSIS, TREATMENT & OUTCOME IF ANY	PROCEDU RES PERFORME D	SUPERVISO R'S REMARKS	SUPERVISO R'S SIGNATURE (NAME/STAMP)

SR#	DATE	REG # OF THE PATIENT	BRIEF DESCRIPTION//HISTORY, SAMPLE COLLECTED, TEST PERFORMED,DIAGNOSIS, TREATMENT & OUTCOME IF ANY	PROCEDU RES PERFORME D	SUPERVISO R'S REMARKS	SUPERVISOR 'S SIGNATURE (NAME/STAM P)

[illegible]

SR#	DATE	REG # OF THE PATIENT	BRIEF DESCRIPTION//HISTORY, SAMPLE COLLECTED, TEST PERFORMED,DIAGNOSIS, TREATMENT & OUTCOME IF ANY	PROCEDU RES PERFORME D	SUPERVISO R'S REMARKS	SUPERVISOR 'S SIGNATURE (NAME/STAM P)

Section-7**INDOORPATIENTS**

(Estimated cases to be seen are 50 patients per rotation)

SR#	DATE	REG # OF THE PATIENT	DIAGNOSIS	MANAGEMENT	PROCEDURE/TE ST PERFORMED	SUPERVISOR'S REMARKS	SUPERVISOR 'S SIGNATURE (NAME/STAMP)

SR#	DATE	REG # OF THE PATIENT	DIAGNOSIS	MANAGEMENT	PROCEDU RE/TEST PERFORME D	SUPERVISO R'S REMARKS	SUPERVISOR 'S SIGNATURE (NAME/STAM P)

SR#	DATE	REG # OF THE PATIENT	DIAGNOSIS	MANAGEMENT	PROCEDU RE/TEST PERFORME D	SUPERVISO R'S REMARKS	SUPERVISOR 'S SIGNATURE (NAME/STAM P)

SR#	DATE	REG # OF THE PATIENT	DIAGNOSIS	MANAGEMENT	PROCEDU RE/TEST PERFORME D	SUPERVISO R'S REMARKS	SUPERVISOR 'S SIGNATURE (NAME/STAM P)

Section-9**PROCEDURES****OBSERVED (O)/ASSISTED (A)/PERFORMED UNDER SUPERVISION (PUS)/PERFORMED INDEPENDENTLY (PI)**

(Estimated cases to be seen are minimum 15 patients per month)

SR.#	DATE	REG NO. OF PATIENT	NAME OF PROCEDU RE	(O)/(A)/(P U S)/(PI)	DETAIL OF PROCEDURE	PLACE OF PROCEDU RE	SUPERVISOR'S REMARKS	SUPERVISOR'S SIGNATURE (Name/Stamp)

[illegible]

[illegible]

Section-10

CONSULTATIONS

[illegible]

[illegible]

[illegible]

SECTION-11

MULTI DISCIPLINARY MEETINGS (MDM) (1/month)

[illegible]

SR#	DATE	BRIEF DESCRIPTION	SUPERVISOR'S REMARKS	SUPERVISOR 'S SIGNATURE (NAME/STAMP)

SECTION-12**CLINICOPATHOLOGICAL CONFERENCE (CPC)**
(50% attendance of CPC is mandatory for the resident)

SR#	DATE	BRIEF DESCRIPTION OF THE TOPIC/CASE DISCUSSED	SUPERVISOR'S SIGNATURE (NAME/STAMP)

SECTION-13**MORBIDITY/MORTALITY MEETINGS (MMM)**

(Total Morbidity/Mortality Meetings to be attended TWO Morbidity/Mortality Meetings per month)

SR#	DATE	REG. # OF THE PATIENT DISCUSSE D	BRIEF DESCRIPTION OF THE CASE	SUPERVISOR'S REMARKS	SUPERVISOR'S SIGNATURE (NAME/STAMP)

SECTION-14

HANDS ON TRAINING/WORKSHOPS

[illegible]

SECTION-15**PUBLICATIONS (if any)**

SNO.	NAME OF PUBLICATI ON	TYPE OF PUBLICATION ORIGINAL ARTICLE/EDITORIAL/CASE REPORT etc	NAME OF JOURA NL	DATE OF PUBLICATI ON	PAG E NO.	SUPERVISO R'S REMARKS	SUPERVISOR 'S SIGNATURE (NAME/STAM P)

SECTION-16

WRITTEN ASSESSMENT RECORD OF THIS ROTATION[illegible]

[illegible]

SECTION-17

CLINICAL ASSESSMENT RECORD OF THIS ROTATION

[illegible]

[illegible]

SECTION-18**EVALUATION RECORDS*****SUPERVISOR APPRAISAL FORM***

Resident's Name: _____ Hospital Name: _____
 Evaluator's Name(s): _____ Department: _____ Unit: _____

1. Use one of the following ratings to describe the performance of the individual in each of the categories.

1	Unsatisfactory	Performance does not meet expectations for the job
2	Needs Improvement	Performance sometimes meets expectations for the job
3	Good	Performance often exceeds expectations for the job
4	Merit	Performance consistently meets expectations for the job
5	Special Merit	Performance consistently exceeds expectations for the job

I. CLINICAL KNOWLEDGE / TECHNICAL SKILLS

	5	4	3	2	1
a) Clinical Knowledge is up to the mark					
b) Follows procedures and clinical methods according to SOPs					
c) Uses techniques, materials, tools & equipment skillfully					
d) Stays current with technology and job-related expertise					
e) Works efficiently in various workshops					
f) Has interest in learning new skills and procedures					
g) Understands & performs assigned duties and job requirements					

II. QUALITY / QUANTITY OF WORK

	5	4	3	2	1
a) Sets and adheres to protocols and improving the skills					
b) Exhibits system based learning methods smartly					
c) Exhibits practice based learning methods efficaciously					
d) Actively participates in large group interactive sessions for postgraduate trainees					
e) Actively takes part in morning & evening teaching and learning sessions & noon conferences					
f) Actively takes part in Multidisciplinary Clinic & Pathological Conferences (CPC)					
g) Actively participates in Journal clubs					
h) Uses resources sensibly and economically					
i) Accomplishes accurate management of different medical cases with minimal assistance or					

supervision					
j) Provides best possible patient care					
III. INITIATIVE / JUDGMENT	5	4	3	2	1
a) Takes effective action without being told					
b) Analyzes different emergency cases and suggests effective solutions					
c) Develops realistic plans to accomplish assignments					
IV. DEPENDABILITY / SELF-MANAGEMENT	5	4	3	2	1
a) Demonstrates punctuality and regularly begins work as scheduled					
b) Contacts supervisor concerning absences on a timely basis					
c) Contacts supervisor without any delay regarding any difficulty in managing any patient					
d) Can be depended upon to be available for work independently					
e) Manages own time effectively					
f) Manages Outdoor Patient Department (OPD) efficiently					
g) Accepts responsibility for own actions and ensuing results					
h) Demonstrates commitment to service					
i) Shows Professionalism in handling patients					
j) Offers assistance, is courteous and works well with colleagues					
k) Is respectful with the seniors					
OVERALL RATINGS/SUGGESTIONS/SUPERVISOR'S REMARKS REGARDING PERFORMANCE OF THE TRAINEE					

Total Score_____/155

Date

Resident's Name &Signatures

Date

Evaluator's Signature &Stamp

SECTION-19

**EVALUATION / REMARKS BY UNIVERSITY TRAINING MONITORING CELL (UTMC) WORKING UNDER
DEPARTMENT OF MEDICAL EDUCATION (DME)**

SECTION-20

**EVALUATION/REMARKS BY QUALITY ENHANCEMENT CELL (QEC) WORKING UNDER DEPARTMENT OF MEDICAL
EDUCATION (DME)**

Section-21
RECORD SHEET OF ATTENDANCE/COUNCELLING SESSION/DOCUMENTATION QUALITY PER ROTATION
TO BE FILLED AT THE END OF ROTATION

MONTH	ATTENDANCE RECORD				DOCUMENTATION QUALITY					COUNCELLING SESSION			SUPERVISOR'S REMARKS SIGNATURE (Name/Stamp)
		TOTAL	ATTENDED	%	Poor	Average	Good	V. Good	Excellent	YES	NO	IF YES THEN NUMBER OF CASES	
January	WARD												
	CPC												
	LECTURE												
	WORKSHOP												

MONTH	ATTENDANCE RECORD				DOCUMENTATION QUALITY					COUNCELLING SESSION			SUPERVISOR'S REMARKS SIGNATURE (Name/Stamp)
		TOTAL	ATTENDED	%	Poor	Average	Good	V. Good	Excellent	YES	NO	IF YES THEN NUMBER OF CASES	
February	WARD												
	CPC												
	LECTURE												
	WORKSHOP												

MONTH	ATTENDANCE RECORD				DOCUMENTATION QUALITY					COUNCELLING SESSION			SUPERVISOR'S REMARKS SIGNATURE (Name/Stamp)
		TOTAL	ATTENDED	%	Poor	Average	Good	V. Good	Excellent	YES	NO	IF YES THEN NUMBER OF CASES	
March	WARD												
	CPC												
	LECTURE												
	WORKSH												

[illegible]

MONTH	ATTENDANCE RECORD				DOCUMENTATION QUALITY					COUNCELLING SESSION			SUPERVISOR'S REMARKS SIGNATURE (Name/Stamp)
		TOTAL	ATTENDED	%	Poor	Average	Good	V. Good	Excellent	YES	NO	IF YES THEN NUMBER OF CASES	
April	WARD												
	CPC												
	LECTURE												
	WORKSHOP												

MONTH	ATTENDANCE RECORD				DOCUMENTATION QUALITY					COUNCELLING SESSION			SUPERVISOR'S REMARKS SIGNATURE (Name/Stamp)
		TOTAL	ATTENDED	%	Poor	Average	Good	V. Good	Excellent	YES	NO	IF YES THEN NUMBER OF CASES	
May	WARD												
	CPC												
	LECTURE												
	WORKSHOP												

MONTH	ATTENDANCE RECORD				DOCUMENTATION QUALITY					COUNCELLING SESSION			SUPERVISOR'S REMARKS SIGNATURE (Name/Stamp)
		TOTAL	ATTENDED	%	Poor	Average	Good	V. Good	Excellent	YES	NO	IF YES THEN NUMBER OF CASES	
June	WARD												
	CPC												
	LECTURE												
	WORKSHOP												

MONTH	ATTENDANCE RECORD				DOCUMENTATION QUALITY					COUNCELLING SESSION			SUPERVISOR'S REMARKS SIGNATURE (Name/Stamp)
		TOTAL	ATTENDED	%	Poor	Average	Good	V. Good	Excellent	YES	NO	IF YES THEN NUMBER OF CASES	
July	WARD												
	CPC												
	LECTURE												
	WORKSHOP												

MONTH	ATTENDANCE RECORD				DOCUMENTATION QUALITY					COUNCELLING SESSION			SUPERVISOR'S REMARKS SIGNATURE (Name/Stamp)
		TOTAL	ATTENDED	%	Poor	Average	Good	V. Good	Excellent	YES	NO	IF YES THEN NUMBER OF CASES	
August	WARD												
	CPC												
	LECTURE												
	WORKSHOP												

MONTH	ATTENDANCE RECORD				DOCUMENTATION QUALITY					COUNCELLING SESSION			SUPERVISOR'S REMARKS SIGNATURE (Name/Stamp)
		TOTAL	ATTENDED	%	Poor	Average	Good	V. Good	Excellent	YES	NO	IF YES THEN NUMBER OF CASES	
September	WARD												
	CPC												
	LECTURE												
	WORKSHOP												

MONTH	ATTENDANCE RECORD				DOCUMENTATION QUALITY					COUNCELLING SESSION			SUPERVISOR'S REMARKS SIGNATURE (Name/Stamp)
		TOTAL	ATTENDED	%	Poor	Average	Good	V. Good	Excellent	YES	NO	IF YES THEN NUMBER OF CASES	
October	WARD												
	CPC												
	LECTURE												
	WORKSHOP												

MONTH	ATTENDANCE RECORD				DOCUMENTATION QUALITY					COUNCELLING SESSION			SUPERVISOR'S REMARKS SIGNATURE (Name/Stamp)
		TOTAL	ATTENDED	%	Poor	Average	Good	V. Good	Excellent	YES	NO	IF YES THEN NUMBER OF CASES	
November	WARD												
	CPC												
	LECTURE												
	WORKSHOP												

MONTH	ATTENDANCE RECORD				DOCUMENTATION QUALITY					COUNCELLING SESSION			SUPERVISOR'S REMARKS SIGNATURE (Name/Stamp)
		TOTAL	ATTENDED	%	Poor	Average	Good	V. Good	Excellent	YES	NO	IF YES THEN NUMBER OF CASES	
December	WARD												
	CPC												
	LECTURE												
	WORKSHOP												

SECTION-22

ANY OTHER IMPORTANT AND RELEVANT INFORMATION/DETAILS

LEAVE RECORD

(Signed & Approved Leave Application/Certificate to Be Kept In Record and To Be Brought In Meetings with URTMC & QEC)

[illegible]

LOG OF Community Medicine & Public Health

The rotation in Public Health is designed to provide residents with the skills and expertise expected family physicians with active practices involving interacting with public health offices and officials. Residents will also gain an introductory knowledge of public health. The two months rotation in Public Health is centered on experience offered by the Community Medicine Department, Rawalpindi Medical University, Rawalpindi. Resident should meet with community and clinical services official, to discuss the time that will be spent with the Health Department. Assigned readings may also be a part of the learning process.

Community Medicine is a full time rotation

SECTION-1**MORNING MEETING /PRESENTATION/ CASE PRESENTATION (2 per month)**

SR#	DATE	BRIEF DESCRIPTION OF TOPIC	SUPERVISOR'S REMARKS	SUPERVISOR'S SIGNATURE (Name/Stamp)

SR#	DATE	BRIEF DESCRIPTION OF TOPIC	SUPERVISOR'S REMARKS	SUPERVISOR'S SIGNATURE (Name/Stamp)

SR#	DATE	BRIEF DESCRIPTION OF TOPIC	SUPERVISOR'S REMARKS	SUPERVISOR'S SIGNATURE (Name/Stamp)

SECTION-2

TOPIC PRESENTATION/SEMINAR

(1per month)

[illegible]

[illegible]

SECTION-3**JOURNAL CLUB**

(1per month)

SR#	DATE	TITLE OF THE ARTICLE	NAME OF JOURNAL	DATE OF PUBLICATION	SUPERVISOR'S REMARKS	SUPERVISOR'S SIGNATURE (Name/Stamp)

SR#	DATE	TITLE OF THE ARTICLE	NAME OF JOURNAL	DATE OF PUBLICATION	SUPERVISOR'S REMARKS	SUPERVISOR'S SIGNATURE (Name/Stamp)

SECTION-4**PUBLIC HEALTH PROBLEM DISCUSSION**

(2 per month)

SR #	DATE	BRIEF DESCRIPTION	SUPERVISOR'S REMARKS	SUPERVISOR'S SIGNATURE (Name/Stamp)

SR #	DATE	BRIEF DESCRIPTION	SUPERVISOR'S REMARKS	SUPERVISOR'S SIGNATURE (Name/Stamp)

SECTION-5

DIDACTIC LECTURE/INTERACTIVE LECTURES ATTENDED

SR #	DATE	BRIEF DESCRIPTION	SUPERVISOR'S REMARKS	SUPERVISOR'S SIGNATURE (Name/Stamp)

SR #	DATE	BRIEF DESCRIPTION	SUPERVISOR'S REMARKS	SUPERVISOR'S SIGNATURE (Name/Stamp)

SR #	DATE	BRIEF DESCRIPTION	SUPERVISOR'S REMARKS	SUPERVISOR'S SIGNATURE (Name/Stamp)

SR #	DATE	BRIEF DESCRIPTION	SUPERVISOR'S REMARKS	SUPERVISOR'S SIGNATURE (Name/Stamp)

SECTION-6**INDEX OF THE FILED VISITS**

S. NO	PLACE OF VISIT	DATE OF VISIT	CREDIT	SIG. OF TEACHER

S. NO	PLACE OF VISIT	DATE OF VISIT	CREDIT	SIG. OF TEACHER

S. NO	PLACE OF VISIT	DATE OF VISIT	CREDIT	SIG. OF TEACHER

SECTION-7**PUBLIC HEALTH DAYS/EVENTS OBSERVANCE
INDEX OF THE PRESENTATIONS**

S. NO	TITLE OF THE PUBLIC HEALTH DAY/EVENT WITH DATE & THEME	CREDIT	SIG. OF TEACHER
Class room Presentation			
Assigned Presentation-I			
Assigned Presentation-II			
Assigned Presentation-III			

S. NO	TITLE OF THE PUBLIC HEALTH DAY/EVENT WITH DATE & THEME	CREDIT	SIG. OF TEACHER
Class room Presentation			
Assigned Presentation-I			
Assigned Presentation-II			
Assigned Presentation-III			

S. NO	TITLE OF THE PUBLIC HEALTH DAY/EVENT WITH DATE & THEME	CREDIT	SIG. OF TEACHER
Class room Presentation			
Assigned Presentation-I			
Assigned Presentation-II			
Assigned Presentation-III			

S. NO	TITLE OF THE PUBLIC HEALTH DAY/EVENT WITH DATE & THEME	CREDIT	SIG. OF TEACHER
Class room Presentation			
Assigned Presentation-I			
Assigned Presentation-II			
Assigned Presentation-III			

SECTION-8**PUBLIC HEALTH UP DATE
INDEX OF THE PRESENTATIONS**

S. NO	TITLE OF THE PRESS NEWS/NEW KNOWLEDGE	CREDIT	SIG. OF TEACHER

S. NO	TITLE OF THE PRESS NEWS/NEW KNOWLEDGE	CREDIT	SIG. OF TEACHER

S. NO	TITLE OF THE PRESS NEWS/NEW KNOWLEDGE	CREDIT	SIG. OF TEACHER

S. NO	TITLE OF THE PRESS NEWS/NEW KNOWLEDGE	CREDIT	SIG. OF TEACHER

S. NO	TITLE OF THE PRESS NEWS/NEW KNOWLEDGE	CREDIT	SIG. OF TEACHER

S. NO	TITLE OF THE PRESS NEWS/NEW KNOWLEDGE	CREDIT	SIG. OF TEACHER

SECTION-9

CONSULTATIONS

[illegible]

[illegible]

[illegible]

SECTION-10

MULTI DISCIPLINARY MEETINGS (MDM)

(Estimated minimum Multi-Disciplinary Meetings 1per month)

[illegible]

[illegible]

SECTION-11

CLINICOPATHOLOGICAL CONFERENCE (CPC)

(50% attendance of CPC is mandatory for the resident)

[illegible]

SR#	DATE	BRIEF DESCRIPTION OF THE TOPIC/CASE DISCUSSED	SUPERVISOR'S SIGNATURE (NAME/STAMP)

SECTION-12**ASSESSMENT SHEET**

(Filled by the teacher in charge)

S. NO	SECTION/ ASSIGNMENTS	MAXI. MARKS	MARKS OBTAINED	REMARKS
1.	Research work			
2.	Institutional Field Visits			
3.	Answer to queries in Photo-Gallery Section			
4.	Public Health Days & Event Observance /Presentations			
5.	Public Health update- Section /Press Cutting			
6.	Calculations/Statistical Assignments			
	Aggregate Marks			
	Overall %			

Signature of the batch-in charge _____

Remarks:

HEAD OF THE DEPARTMENT

S. NO	SECTION/ ASSIGNMENTS	MAXI. MARKS	MARKS OBTAINED	REMARKS
1.	Research work			
2.	Institutional Field Visits			
3.	Answer to queries in Photo-Gallery Section			
4.	Public Health Days & Event Observance /Presentations			
5.	Public Health update- Section /Press Cutting			
6.	Calculations/Statistical Assignments			
	Aggregate Marks			
	Overall %			

Signature of the batch-in charge _____

Remarks:

HEAD OF THE DEPARTMENT

SECTION-13

HANDS ON TRAINING/WORKSHOPS

[illegible]

[illegible]

SECTION-14

PUBLICATIONS (if any)[illegible]

SECTION-15

WRITTEN ASSESSMENT RECORD OF THIS ROTATION

[illegible]

[illegible]

SECTION-16

CLINICAL ASSESSMENT RECORD OF THIS ROTATION

[illegible]

[illegible]

SECTION-17**EVALUATION RECORDS*****SUPERVISOR APPRAISAL FORM***

Resident's Name: _____ Hospital Name: _____

Evaluator's Name(s): _____ Department: _____ Unit : _____

2. Use one of the following ratings to describe the performance of the individual in each of the categories.

1	Unsatisfactory	Performance does not meet expectations for the job
2	Needs Improvement	Performance sometimes meets expectations for the job
3	Good	Performance often exceeds expectations for the job
4	Merit	Performance consistently meets expectations for the job
5	Special Merit	Performance consistently exceeds expectations for the job

I. CLINICAL KNOWLEDGE / TECHNICAL SKILLS

	5	4	3	2	1
a) Clinical Knowledge is up to the mark					
b) Follows procedures and clinical methods according to SOPs					
c) Uses techniques, materials, tools & equipment skillfully					
d) Stays current with technology and job-related expertise					
e) Works efficiently in various workshops					
f) Has interest in learning new skills and procedures					
g) Understands & performs assigned duties and job requirements					

II. QUALITY / QUANTITY OF WORK

	5	4	3	2	1
a) Sets and adheres to protocols and improving the skills					
b) Exhibits system based learning methods smartly					
c) Exhibits practice based learning methods efficaciously					
d) Actively participates in large group interactive sessions for postgraduate trainees					
e) Actively takes part in morning & evening teaching and learning sessions & noon conferences					
f) Actively takes part in Multidisciplinary Clinic & Pathological Conferences (CPC)					
g) Actively participates in Journal clubs					
h) Uses resources sensibly and economically					
i) Accomplishes accurate management of different medical cases with minimal assistance or supervision					

j) Provides best possible patient care					
III. INITIATIVE / JUDGMENT	5	4	3	2	1
a) Takes effective action without being told					
b) Analyzes different emergency cases and suggests effective solutions					
c) Develops realistic plans to accomplish assignments					
IV. DEPENDABILITY / SELF-MANAGEMENT	5	4	3	2	1
a) Demonstrates punctuality and regularly begins work as scheduled					
b) Contacts supervisor concerning absences on a timely basis					
c) Contacts supervisor without any delay regarding any difficulty in managing any patient					
d) Can be depended upon to be available for work independently					
e) Manages own time effectively					
f) Manages Outdoor Patient Department (OPD) efficiently					
g) Accepts responsibility for own actions and ensuing results					
h) Demonstrates commitment to service					
i) Shows Professionalism in handling patients					
j) Offers assistance, is courteous and works well with colleagues					
k) Is respectful with the seniors					
OVERALL RATINGS/SUGGESTIONS/SUPERVISOR'S REMARKS REGARDING PERFORMANCE OF THE TRAINEE					

Total Score _____/155

Date _____

Resident's Name & Signatures

Date _____

Evaluator's Signature & Stamp

EVALUATION/REMARKS BY UNIVERSITY TRAINING MONITORING CELL (UTMC) WORKING UNDER DEPARTMENT OF MEDICAL EDUCATION (DME)

SECTION-18

**EVALUATION/REMARKS BY QUALITY ENHANCEMENT CELL (QEC) WORKING UNDER DEPARTMENT OF MEDICAL
EDUCATION (DME)**

SECTION-19

RECORD SHEET OF ATTENDANCE/COUNCELLING SESSION/DOCUMENTATION QUALITY PER ROTATION

TO BE FILLED AT THE END OF ROTATION

MONTH	ATTENDANCE RECORD				DOCUMENTATION QUALITY					COUNSELLING SESSION			SUPERVISOR'S REMARKS SIGNATURE (Name/Stamp)
		TOTAL	ATTENDED	%	Poor	Average	Good	V. Good	Excellent	YES	NO	IF YES THEN NUMBER OF SESSIONS	
January	WARD												
	CPC												
	LECTURE												
	WORKSHOP												

MONTH	ATTENDANCE RECORD				DOCUMENTATION QUALITY					COUNSELLING SESSION			SUPERVISOR'S REMARKS SIGNATURE (Name/Stamp)
		TOTAL	ATTENDED	%	Poor	Average	Good	V. Good	Excellent	YES	NO	IF YES THEN NUMBER OF SESSIONS	
February	WARD												
	CPC												
	LECTURE												
	WORKSHOP												

MONTH	ATTENDANCE RECORD				DOCUMENTATION QUALITY					COUNSELLING SESSION			SUPERVISOR'S REMARKS SIGNATURE (Name/Stamp)
		TOTAL	ATTENDED	%	Poor	Average	Good	V. Good	Excellent	YES	NO	IF YES THEN NUMBER OF SESSIONS	
M	WARD												
	CPC												

[illegible]

MONTH	ATTENDANCE RECORD				DOCUMENTATION QUALITY					COUNCELLING SESSION			SUPERVISOR'S REMARKS SIGNATURE (Name/Stamp)
		TOTAL	ATTENDED	%	Poor	Average	Good	V. Good	Excellent	YES	NO	IF YES THEN NUMBER OF SESSIONS	
April	WARD												
	CPC												
	LECTURE												
	WORKSHOP												

MONTH	ATTENDANCE RECORD				DOCUMENTATION QUALITY					COUNCELLING SESSION			SUPERVISOR'S REMARKS SIGNATURE (Name/Stamp)
		TOTAL	ATTENDED	%	Poor	Average	Good	V. Good	Excellent	YES	NO	IF YES THEN NUMBER OF SESSIONS	
May	WARD												
	CPC												
	LECTURE												
	WORKSHOP												

MONTH	ATTENDANCE RECORD				DOCUMENTATION QUALITY					COUNCELLING SESSION			SUPERVISOR'S REMARKS SIGNATURE (Name/Stamp)
		TOTAL	ATTENDED	%	Poor	Average	Good	V. Good	Excellent	YES	NO	IF YES THEN NUMBER OF SESSIONS	
June	WARD												
	CPC												
	LECTURE												
	WORKSHOP												

MONTH	ATTENDANCE RECORD				DOCUMENTATION QUALITY					COUNCELLING SESSION			SUPERVISOR'S REMARKS SIGNATURE (Name/Stamp)
		TOTAL	ATTENDED	%	Poor	Average	Good	V. Good	Excellent	YES	NO	IF YES THEN NUMBER OF SESSIONS	
July	WARD												
	CPC												
	LECTURE												
	WORKSHOP												

MONTH	ATTENDANCE RECORD				DOCUMENTATION QUALITY					COUNCELLING SESSION			SUPERVISOR'S REMARKS SIGNATURE (Name/Stamp)
		TOTAL	ATTENDED	%	Poor	Average	Good	V. Good	Excellent	YES	NO	IF YES THEN NUMBER OF SESSIONS	
August	WARD												
	CPC												
	LECTURE												
	WORKSHOP												

MONTH	ATTENDANCE RECORD				DOCUMENTATION QUALITY					COUNCELLING SESSION			SUPERVISOR'S REMARKS SIGNATURE (Name/Stamp)
		TOTAL	ATTENDED	%	Poor	Average	Good	V. Good	Excellent	YES	NO	IF YES THEN NUMBER OF SESSIONS	
September	WARD												
	CPC												
	LECTURE												
	WORKSHOP												

MONTH	ATTENDANCE RECORD				DOCUMENTATION QUALITY					COUNCELLING SESSION			SUPERVISOR'S REMARKS SIGNATURE (Name/Stamp)
		TOTAL	ATTENDED	%	Poor	Average	Good	V. Good	Excellent	YES	NO	IF YES THEN NUMBER OF SESSIONS	
October	WARD												
	CPC												
	LECTURE												
	WORKSHOP												

MONTH	ATTENDANCE RECORD				DOCUMENTATION QUALITY					COUNCELLING SESSION			SUPERVISOR'S REMARKS SIGNATURE (Name/Stamp)
		TOTAL	ATTENDED	%	Poor	Average	Good	V. Good	Excellent	YES	NO	IF YES THEN NUMBER OF SESSIONS	
November	WARD												
	CPC												
	LECTURE												
	WORKSHOP												

MONTH	ATTENDANCE RECORD				DOCUMENTATION QUALITY					COUNCELLING SESSION			SUPERVISOR'S REMARKS SIGNATURE (Name/Stamp)
		TOTAL	ATTENDED	%	Poor	Average	Good	V. Good	Excellent	YES	NO	IF YES THEN NUMBER OF SESSIONS	
December	WARD												
	CPC												
	LECTURE												
	WORKSHOP												

SECTION-20

ANY OTHER IMPORTANT AND RELEVANT INFORMATION/DETAILS

LEAVE RECORD

(Signed & Approved Leave Application/Certificate to Be Kept In Record and To Be Brought In Meetings with URTMC & QEC)

ROTATION-4

LOG OF RESEARCH ELECTIVE

(RESEARCH ELECTIVE WOULD BE TAUGHT 08:00 AM TO 02:00 PM & RESIDENT WOULD PERFORM THE DUTY OF EVENING CALLS AS PER ROTA.)

Residents' outlook in research can be significantly improved using a research curriculum offered through a structured and dedicated research rotation. This is exemplified by the improvement noted in resident satisfaction, their participation in scholarly activities and resident research outcomes since the inception of the research rotation in our internal medicine training program. Residents' research lead to better clinical care, correlates with the pursuit of academic careers, increases numbers of clinician investigators, and is an asset to those applying for fellowships. We report our success in designing and implementing a structured research curriculum incorporating basic principles within a research rotation to enhance

participation and outcomes of our residents in scholarly activities within a busy residency training program setting.

REFERENCE:

<https://bmcmmededuc.biomedcentral.com/articles/10.1186/1472-6920-6-52>

NOTE: A separate log book has been designed for Research Elective.