

# SRI BALAJI VIDYAPEETH

(Deemed – to be - University u/s 3of UGC Act, 1956)

Pillaiyarkuppam, Puducherry - 607 402

**Mahatma Gandhi Medical College and Research Institute**

**Shri Sathya Sai Medical College and Research Institute**



## **COMPETENCY BASED POSTGRADUATE MEDICAL CURRICULUM M.D. PATHOLOGY (2020 Onwards)**

(As approved at the 30th Academic Council Meeting held on 28th September 2020)





# Preface

Following the promulgation of the much awaited CompetencyBased Medical Education (CBME) for post graduate by the Medical Council of India (MCI)(superseded by the Board of Governors), adoption of CBME for implementing post-graduate programs is a welcome move. Sri Balaji Vidyapeeth (SBV), Puducherry, Deemed to be University, declared u/s 3 of the UGC Act. and accredited by the NAAC with A grade, takes immense privilege in preparing such an unique document in a comprehensive manner and most importantly the onus is on the Indian setting for the first time,with regard to the competency based medical education for post graduate programs that are being offered in the broad specialty departments. SBV is committed to making cardinal contributions that would be realised by exploring newer vistas.Thus, post graduate medical education in the country could be made to scale greater heights and SBV is poised to show the way in this direction.

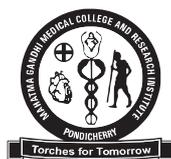
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# Preface

Following roll out of much awaited Competency-Based Medical Education (CBME) for undergraduate by the Medical Council of India (MCI)(superseded by the Board of Governors), adoption of CBME for post-graduate by it is welcome move.

The MCI has laid down the syllabus in a manner that it precedes course wise, competency wise describing teaching learning methods and probable methods of assessment also. This focuses on learner performance (learning outcomes) in reaching specific objectives (goals and objectives of the curriculum). The MCI describes competencies in three domain (knowledge, skill, attitude).

It has laid down the syllabus course wise , competency wise to some extent, teaching learning methods and the assessment methods as well. However, the most significant problem in competency-based training is the development of appropriate assessment tools. The salient feature of this document is defining the program educational objectives (PEO) for its postgraduate program as a whole, besides defining program outcomes (PO), course outcomes (CO) and program specific competencies in the form of entrustable professional activities (EPA) for individual postgraduate program. It also defines milestone in five levels, for each sub-competency. Although MCI has described three domains of competencies, followed here is the ACGME six competencies for residency education: Medical Knowledge, Patient Care, Practice Based Learning and Improvement, Systems Based Practice, Professionalism, Inter personal and Communication Skills for better clarity and in-depth explanation. To make the program more relevant, PEO, PO, CO and EPAs are mapped with each other. A great emphasis is given on monitoring the progress in acquisition of knowledge, skill and attitude through various appraisal forms including e-portfolios. During three years of residency period.



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# Foreword

The Postgraduate curriculum in Pathology has evolved into a Competency Based Medical Education which provides an objective mode of teaching and evaluation. Based on the MCI guidelines the curriculum is modified to accommodate program outcomes, course outcomes and thereby achieving the Program Educational Objectives.

The Entrustable Professional Activities are defined with the levels of achievement for individual postgraduate student for each phase of their program, thereby enabling self assessment and improvement as well. The 360 degree feedback and e- portfolio will assist in learning and evaluation of all the three domains – cognitive, psychomotor and affective.

The new curriculum encompasses recent concepts and their applications in the core, which will provide exposure to the practical skills to be acquired.

Overall the postgraduates will get an opportunity to learn, practice, analyse and teach the basics of Pathology, during their tenure.

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**Sri Balaji University**  
**Department of Pathology**  
**Post- Graduate Program**

**1. Preamble:**

The purpose of PG education is to create specialists who would provide high quality health care in diagnostics and advance the cause of science through research & training. The purpose of MD Pathology is to standardize Pathology teaching at Post Graduate level throughout the country so that it will benefit in achieving uniformity in postgraduate teaching as well and resultantly creating competent Pathologist with appropriate expertise. The post graduate student should be trained in handling and processing Histopathology, Clinical Pathology, Microbiology, Biochemistry and Transfusion medicine samples with a knowledge of general principles and methodology. The purpose of this document is to provide teachers and learners illustrative guidelines to achieve defined outcomes through learning and assessment. This document was prepared by subject-content specialists. The Reconciliation Board of Academic Council has attempted to render uniformity without compromise to purpose and content of the document. Compromise in purity of syntax has been made in order to preserve the purpose and content. This has necessitated retention of “domains of learning” under the heading “competencies”.

**2. Program Educational Objectives (PEO):**

- PEO1:** Pathologist who can provide all diagnostic information in the fraternity of laboratory medicine especially in Histopathology, Cytopathology, Clinical Pathology, Hematology and Transfusion Medicine with a knowledge of general principles and methodology with interpretation of values.
- PEO2:** Understands health care system and be a leader and as a part of a team, to develop an attitude of cooperation with colleagues, and interact with the patient and the clinician or other colleagues to provide the best possible diagnosis or opinion.
- PEO3:** Communicator (Affective domain) Interpret and correlate clinical and laboratory data so that clinical manifestations of diseases can be explained.
- PEO4:** Lifelong learner keen on updating oneself regarding the advancement in diagnostic field and capable to teach Pathology to undergraduates, postgraduates, nurses and paramedical staff including laboratory personnel.
- PEO5:** Professional who understands and follows the principle of bio-ethics / ethics related to health care system and biomedical waste disposal, quality system and ensures good clinical laboratory practices

**3. Program Outcome (PO):**

**After three years of residency program postgraduate should be able to**

- PO1:** Provide a definitive diagnosis in Histopathology, Cytology, Clinical Pathology and Hematology.
- PO2:** Practice safe blood transfusion practices with management of its adverse reactions.
- PO3:** Interpret all routine diagnostic tests and handle in trouble shootings.
- PO4:** Identify patient safety and system approach to different errors in laboratory in

phases like pre-analytical, analytical and post-analytical.

- PO5:** Communicate with colleagues, faculty and stake holders of the health care system.
- PO6:** Update with recent advances and Develop communication skills to word reports and professional opinion aswell as to educate students and interact with patients, peers and paramedical staff, and for effective teaching.
- PO7:** Maintain proper etiquette in dealings with patients, relatives and other health personnel and to respect the rights of the patient including the right to information and second opinion.
- PO8:** Perform Self Directed Learning and Critical appraisal of medical literature.
- PO9:** Develop & execute a protocol for a scientific research project, collect and analyze the data and scientifically communicate to the others.

#### **4. Course and Course Objectives (CO):**

##### **Course 1 (C1): General Pathology, Pathophysiology, Immunopathology and Cytopathology**

**Objectives:** At the end of three years post graduate student should be able to

- C1.1.** Aquire Basic knowledge about General pathology.
- C1.2** BeFamiliar with the concepts of Pathophysiology and Immunopathology.
- C1.3.** Possess background knowledge about Cytopathology and able to perform its techniques.
- C1.4.** Undergo Basic Course in Biomedical Research, Data collection and analysis, Scientific communication.

##### **Course 2 (C2): Systemic Pathology.**

**Objectives:** At the end of three years post graduate student should be able to

- C2.1.** Perform a systematic gross examination of the tissues and demonstrate the orientation of tissues in paraffin blocks.
- C2.2.** Identify and systematically and accurately describe the chief histo-morphological alterations in the tissue received in the surgical pathology service.
- C2.3.** Be conversant with automatic tissue processing machine and the principles of its running.
- C2.4.** Process a tissue, make a paraffin block and cut sections of good quality on a rotary microtome and also able to stain the tissue with various stains.
- C2.5.** Cut a frozen section using cryostat, to stain and interpret the slide in correlation with the clinical data provided.
- C2.6.** Demonstrate the understanding of the utility of various immunohistochemical stains especially in the diagnosis of tumour subtypes.
- C2.7.** Possess the knowledge and able to perform the Adult and Fetal autopsy.

**Course 3 (C3):Haematology, Transfusion Medicine (Blood Banking) and Laboratory Medicine.**

**Objectives:At the end of three years post graduate student should be able to**

- C3.1.** Able to perform various routine and special haematological tests and also molecular investigation related to hematology.
- C3.2** Demonstrate familiarity and beable to perform various clinical pathology investigations like urine analysis, fluid examination and semen analysis.
- C3.3** Demonstrate familiarity and able to perform various laboratory medicine investigation and good clinical laboratory practice (GCLP).
- C3.4.** Be able to perform bleeding and selecting the donor, Prepration of components and blood grouping.
- C3.5.** Demonstrate familiarity with Antenatal and Neonatal work up and other work up related to transfusion services.

**Course 4 (C4): Recent advances and Applied aspects.**

Objectives:At the end of three years post graduate student should be able to

- C4.1.** Demonstrate familiarity with the principles and techniques of advances in Pathology like Immunohistochemistry, Immunoflourescence and Electron microscopy.
- C4.2** Possess the knowledge of various molecular techniques like PCR and FISH.
- C4.3** Demonstrate familiarity with the principles of Biostatistics.
- C4.4** Possess knowledge about Biomedical waste management.

The PEO, PO and the CO are mapped with each other.(Table 1)

**4.1. Table1. Mapping of PEO, PO and CO**

	PEO1		PEO1PEO3	PEO1	PEO2 PEO3	PEO2 PEO3 PEO4 PEO5	PEO2 PEO4	PEO4 PEO5	PEO5
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
<b>C1</b>	Y		Y	Y	Y		Y	Y	Y
<b>C2</b>	Y		Y	Y	Y	Y	Y	Y	Y
<b>C3</b>	Y	Y	Y	Y	Y	Y	Y	Y	Y
<b>C4</b>					Y	Y		Y	Y

All courses run concurrently for 3 years with a summative assessment at the end of 3 years. The program is competency based and the competencies, sub-competencies and milestones are detailed. These are mapped to the Entrustable Professional Activities (EPA) identified as essential for a specialist. Formative assessment is carried out every three months using appropriate tools, for identifying eligibility for transfer of trust.

**4.2 Competencies, Sub-competencies and Milestone:**

At the end of the MD course in Pathology, the student should have acquired various competencies i.e. medical knowledge, patient care, interpersonal communication skill, system based practice, practice based learning and implementation and professionalism. Details of each with milestone

as level is described below.(Table 2)

### 4.3 Table 2: Description of Competencies, Sub-competencies and Milestone

Medical Knowledge (MK): Demonstrate knowledge of established and evolving biomedical, clinical, epidemiological, and social-behavioural sciences, as well as the application of this knowledge to patient care.

#### MK 1: Knowledge of normal and abnormal structure and function of various systems

Level 1	Level 2	Level 3	Level 4	Level 5
Demonstrate a knowledge of normal anatomy, histology and functions of various organs	Explain pathogenesis and morphology of various organ system	Demonstrate the ability to identifies the gross morphological changes in organs Demonstrate knowledge about the microscopic changes in various disease	Demonstrate an in-depth knowledge regarding pathology explained in level 2	Demonstrate the knowledge regarding rare diseases and interesting cases.

MK 2: Apply established and emerging principles of clinical sciences to diagnostic and therapeutic decision making, clinical problem solving, and other aspects of evidence-based health care

Level 1	Level 2	Level 3	Level 4	Level 5
Demonstrate the ability to formulate a differential diagnosis of various pathological conditions	Demonstrate an understanding of disease process and morphological changes Demonstrate the ability to formulate comprehensive reporting format Demonstrate knowledge relevant to reporting of various fields like surgical Pathology, Cytology and Hematology	Demonstrate the ability to Interpret tests appropriate to disease with differential diagnosis.	Educate residents regarding various diseases and correlate with other laboratory and radiological investigations.	Demonstrate ability to share knowledge with multidisciplinary team regarding final pathological report

MK3: Apply principles of social-behavioural sciences to provision of patient care, including assessment of the impact of psychosocial-cultural influences on health, disease, care-seeking, care-compliance, and barriers to and attitudes toward care

Level 1	Level 2	Level 3	Level 4	Level 5
Recognise common psychosocial-cultural influences on cancer patients toward patients care	Assess psychosocial-cultural influences on cancer reports and genetic disease and attitudes toward patients care	Analyze psychosocial-cultural influences of patients on various diseases	Educate residents and other health care members regarding psychosocial-cultural influences on various diseases.	Contribute to multidisciplinary team in planning for care of patients.

MK 4: Apply principles of techniques in various sub-speciality of pathology

Level 1	Level 2	Level 3	Level 4	Level 5
Recall the procedures of histopathology lab, cytology lab and hematology and blood bank	Demonstrate knowledge of fixation, tissue processing, stains & cytotechniques & haematological test.	Recommend special stain, IHC and special tests in various sub-speciality of Pathology.	Suggest the necessary action for improving the quality in laboratory.	Plan to improve the quality and obtain knowledge about molecular techniques.

**PATIENT CARE (PC):** Provide patient-centred care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health. **PC1:** Gather essential and accurate information about patients and their condition through history-taking, physical examination, and available laboratory data, imaging, and other tests.

Level	Level 2	Level 3	Level 4	Level 5
Demonstrate basic knowledge of various common and uncommon diseases	Perform basic history taking and physical examination appropriate for routine diagnosis	Interpret test results and screen for various pathological diseases	Demonstrate a comprehensive understanding of the varying pathological disorders. Effectively supervises and educates lower-level residents.	Apply innovative approaches to recognize atypical presentations and to get the clinical and other relevant information in dealing with complicated and rare cases for diagnosis

**PC 2:** Perform diagnostic and technical procedure essential for the area of practice.

Level	Level 2	Level 3	Level 4	Level 5
Perform basic procedures, including Peripheral smear preparation and Pap smear. Demonstrate basic technical procedures including use of universal precautions and aseptic technique Orientation of resident to various procedures in reporting from sample reception to report despatch	Assist in grossing station, FNAC, bone marrow aspiration etc Performs Processing and staining, peripheral smear examination and assist in reporting	Perform Grossing, FNAC and bone marrow aspiration. Work effectively as an assistant in routine reporting in various sub-specialities of pathology	Supervise and educates lower level residents. Collaborate and provides consultation to other members of the health care team	Apply innovative approach based on emerging evidence in diagnostic and procedural skill. Reporting various rare diseases

PC 3: Interpret laboratory data, imaging studies, and other tests required for the Pathological diagnosis.

Level 1	Level 2	Level 3	Level 4	Level 5
Demonstrate knowledge of various pathological disorders.	Interpretation of commonly performed laboratory data, imaging studies. Correlating the laboratory data, imaging studies with underlying pathology	Interpretation of specially performed laboratory data, imaging studies. Correlating specially performed laboratory data, imaging studies with underlying pathology	Formulates reporting protocol with grading and staging which helps in treatment and prognostication of particular disease. Maintain the proper Turn Around Time (TAT) for reporting of results.	Apply innovative approaches to diagnose and perform molecular pathology for diagnosis.

PC 4: Provide health care services aimed at preventing health problems or maintaining health

Level 1	Level 2	Level 3	Level 4	Level 5
Demonstrate knowledge of the characteristics of a good screening test. Demonstrate knowledge of indication, benefit and limitations of commonly used screening.	Recognize basic risk factors, symptoms, and signs of various diseases. Recommend age- and risk- appropriate vaccinations.	Formulate plans and initiates appropriate screening measure	Effectively supervises and educates lower level residents. Collaborate and provides consultation to other members of the health care team	Apply innovative approaches for preventive and promote health care research. Effectively work to maintain the quality control of the laboratory.

PC 5: Provide appropriate referral for lab diagnosis.

Level 1	Level 2	Level 3	Level 4	Level 5
Identify indications for consultation, referral for patients which need referral for diagnosis.	Prepare necessary relevant document for referral for further diagnosis	Use a multi-disciplinary approach and make appropriate referrals	Effectively supervise and educate lower level residents. Collaborate and provides consultation to other members of the health care team	Followup till final outcome after referral

**INTERPERSONAL AND COMMUNICATION SKILLS (ICS):** Demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals

ICS 1: Communicate the reports effectively with clinician, patients, families, and the public, as appropriate.

Level 1	Level 2	Level 3	Level 4	Level 5
Demonstrate adequate listening skills. Communicate effectively in routine clinical situations Verbalize basic knowledge about common reports Understand the importance of informed consent	Enquire for patient and family understanding of illness and Allow opportunities for patient questions, Maintain communication with patient and family regarding the pathology report.	Communicate effectively in stressful, emergent, and complex Capable of delivering bad news to patients and families regarding poor prognoses situation- Communicate with patients and families across a broad range of socio- economic and cultural backgrounds	Capable of informing Clinicians and patients and families about medical error that caused harm to the patients. Incorporate risk assessment and risk management in this process Participate in education of patients and families	Capable of communication in the most challenging situations, and invites participation from all stakeholders. Lead multidisciplinary family/patient/team member conferences. Role model for effective communication to junior colleagues

ICS 2: Communicate effectively with colleagues within the specialty, other health professionals, and health-related agencies leading to team work

Level 1	Level 2	Level 3	Level 4	Level 5
Understand the importance of relationship development, information gathering and sharing, and teamwork	Demonstrate an understanding of the roles of health care team members, and communicates effectively within the team Demonstrate an understanding of transitions of care and team debriefing	Work effectively in interprofessional and interdisciplinary health care teams Participate in effective transitions of care and team debriefing Communicate effectively with physicians and other health care professionals regarding patient care	Lead inter-professional and interdisciplinary health care teams to achieve optimal outcomes. Lead the team in complex situation Lead effective transitions of care and team debriefing Respond to requests for consultation in a timely manner and communicates recommendations to the requesting team	Educate other health care professionals regarding team building Provide effective consultation in complex and atypical patients Provide appropriate role modelling Apply innovative approaches for leading the team

ICS 3: Able to teach colleagues and undergraduate students.

Level 1	Level 2	Level 3	Level 4	Level 5
Understand the importance of concepts in pathology and able to communicates to juniors.	Assist in teaching the Undergraduate students.	Participate in teaching undergraduates both theory and practical.	Participate in multidisciplinary family/patient/team member conferences for informed consent and shared decision making.	Model and coach shared decision making in complex and highly stressful situations Organize and Lead multidisciplinary family/patient/team member conferences for informed consent and shared decision making.

**SYSTEM BASED PRACTISE (SBP):** Demonstrate the ability to follow the standard operating procedures relevant to practices of the organisations for patient care.

**SBP 1: Patient Safety and Systems Approach to Medical Errors:** Participate in identifying system errors and implementing potential systems solutions.

<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	<b>Level 4</b>	<b>Level 5</b>
Recognize limitations and failures of a team approach (e.g., hand-offs, miscommunication) in health care as the leading cause of preventable patient harm	Demonstrate knowledge of institutional surveillance systems to monitor for patient safety (e.g., Laboratory error reporting) Demonstrate knowledge of the epidemiology of laboratory errors and the differences between Pre-analytical, Analytical and Post-analytical errors.	Participate in laboratory safety reporting and analyzing systems Participate in team drills Demonstrate knowledge national laboratory safety standards, as well as their use/ application in the institution	Report errors and near-misses to the institutional surveillance system and superiors Recognize when root cause analysis is necessary, and is capable of participating in root cause analysis Participate in quality improvement (QI)/ Laboratory safety practices.	Contribute to peer-reviewed medical literature Organize and leads institutional QI/Laboratory safety projects

**SBP 2: Cost-effective Care and Patient Advocacy.**

<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	<b>Level 4</b>	<b>Level 5</b>
Understand the importance of providing cost-effective reports Understand the role of pathologist and reports to health care services.	Aware of common socioeconomic barriers that impact patient care and lab services. Demonstrate an awareness of the need for coordination of patient care and laboratory services	Demonstrate the incorporation of cost awareness into Laboratory services and decision making. Coordinate and advocate for needed resources to facilitate Laboratory services (e.g., effective and quality reporting)	Practice cost-effective care (e.g., diagnostic tests) Communicate effectively within his or her own laboratory/ clinic to advocate for patient needs	Participate in advocacy or health care legislation locally, regionally, or nationally. Communicate effectively within health care systems to advocate for the needs of patient populations Demonstrate an understanding of the political economics of health care legislation locally, regionally, and nationally

**PRACTICE BASED LEARNING AND IMPROVEMENT (PBLI):** Demonstrate the commitment to learn by practice and improve upon their ability.

PBLI 1: Self-directed Learning/Critical Appraisal of Medical Literature.

Level 1	Level 2	Level 3	Level 4	Level 5
Demonstrate an understanding of critical appraisal of the literature Demonstrate responsiveness to constructive feedback	Identify resources (e.g., texts, search engines) to answer questions while providing patient care Recognize limits of knowledge, expertise, and technical skills Describe commonly used study designs (e.g., randomized controlled trial [RCT], cohort; case-control, cross-sectional)	Apply patient-appropriate evidence-based information from review articles or guidelines on common topics in practice Critically review and interpret the literature with the ability to identify study aims, hypotheses, design, and biases	Tailor evidence-based practice based on the values and preferences of each case Reads and assess strength of evidence in current literature and applies it to one's own practice Analyze his or her own outcomes as compared to national standards	Design a hypothesis-driven or hypothesis-generating study Contribute to peer-reviewed medical literature

PBLI 2: Systematically analyze practice using quality improvement methods and implement changes with the goal of practice improvement

Level 1	Level 2	Level 3	Level 4	Level 5
Show commitment to self-evaluation, lifelong learning, and patient safety	Demonstrate understanding of the basic concepts of Quality Indicators Read appropriate information, as assigned by the program or related to reporting formats Understand level of evidence for patient care recommendations	Reference and utilizes national standards or guidelines in reporting of various sub speciality of Pathology. Identify quality of care issues within one's own practice with a systems-based approach	Participate in departmental or institutional quality process/committees Implement changes with a goal of practice improvement Monitor one's own outcomes to improve practice	Analyze department or institutional outcomes Contribute to peer-reviewed medical literature Organize and leads effective institutional QI/ Laboratory safety projects

**PROFESSIONALISM (P):** Demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles.

**P 1: Compassion, Integrity, and Respect for Others**

<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	<b>Level 4</b>	<b>Level 5</b>
Understand the importance of compassion, integrity, and respect for others Demonstrate sensitivity and responsiveness to patients	Consistently show compassion, integrity, and respect in typical situations with patients, peers, and members of the health care team Consistently demonstrate sensitivity and responsiveness to the diagnostic services Accept constructive feedback to improve his or her ability to demonstrate compassion, integrity, and respect for others	Consistently show compassion, integrity, and respect for patients who decline medical advice or request un-indicated tests or treatments, for patients who have psychiatric comorbidities, and for team members in circumstances of conflict or high stress Modify one's own behaviour based on feedback to improve his or her ability to demonstrate compassion, integrity, and respect for others	Consistently model compassion, integrity, and respect for others Coach others to improve compassion, integrity, and respect to diagnostic services	Assume long-term or leadership role in community outreach activities improve the health of vulnerable populations

**P 2: Accountability and Responsiveness to the Needs of Patients, Society, and the Profession**

<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	<b>Level 4</b>	<b>Level 5</b>
Understand that pathologists are accountable to patients, society, and the profession Acts with honesty and truthfulness	Consistently being punctual for clinical assignments and responsive to requests for assistance; completes administrative duties (e.g., medical records, reports) on time and without reminders	Serve as an example for others in punctuality, responsiveness, and timely completion of duties Recognize signs and symptoms of fatigue, stress, and substance abuse	Coach others to improve punctuality and responsiveness; offers assistance to ensure laboratory duties are completed in a timely fashion Demonstrate self-awareness of fatigue and stress, and mitigates the effects	Participate in institutional or community peer counselling related to professionalism

## 5. Syllabus

### 5.1 Course 1 General Pathology, Pathophysiology, Immunopathology and Cytopathology

#### 5.1.1. General Pathology and pathophysiology

- Normal cell and tissue structure and function.
- The changes in cellular structure and function in disease.
- Causes of disease and its pathogenesis.
- Reaction of cells, tissues, organ systems and the body as a whole to various sublethal and lethal injuries.
- Basic Course in Biomedical Research, Data collection and analysis, Scientific communication.

#### 5.1.2. Immunopathology

- Demonstrate familiarity with the current concepts of structure and function of the immune system, its aberrations and mechanisms thereof.
- Demonstrate familiarity with the scope, principles, limitations and interpretations of the results of the following procedures employed in clinical and experimental studies relating to immunology.
  - (i) ELISA techniques
  - (ii) Radioimmunoassay
  - (iii) HLA typing
- Interpret simple immunological tests used in diagnosis of diseases and in research procedures.
  - (i) Immunoelectrophoresis
  - (ii) Immunofluorescence techniques especially on kidney and skin biopsies
  - (iii) Anti-nuclear antibody (ANA)
  - (iv) Anti-neutrophil cytoplasmic antibody (ANCA)

#### 5.1.3. Cytopathology

- Should possess the background necessary for the evaluation and reporting of cytopathology specimens.
- Demonstrate familiarity with the following, keeping in mind the indication for the test.
  - (i) Choice of site from which smears may be taken
  - (ii) Type of samples
  - (iii) Method of obtaining various specimens (urine sample, gastric smear, colonic lavage etc.)
  - (iv) Be conversant with the principles and preparation of solutions of stains

## **5.2.Course 2:Systemic Pathology:**

### **5.2.1.Systemic Pathology**

- Normal structure and function of various organ systems.
- Aetiopathogenesis, gross and microscopic alterations of structure of these organ systems in disease and functional correlation with clinical features.

### **5.2.2.Surgical Pathology**

- Histogenetic and patho-physiologic processes associated with various lesions.
- Problems in the laboratory and offer viable solutions.

### **5.2.3. Autopsy Pathology**

- Technique of autopsy.
- Various disease processes so that a meaningful clinico-pathological correlation can be made.

## **5.3Course 3:Haematology, Transfusion Medicine (Blood Banking) andLaboratory Medicine**

### **5.3.1.Hematology**

- Should demonstrate the capability of utilising the principles of the practice of Haematology for the planning of tests, interpretation and diagnosis of diseases of the blood and bone marrow.
- Should be conversant with various equipment used in the Haematology laboratory.
- Should have knowledge of automation and quality assurance in Haematology.
- Correctly plan a strategy of investigating at least 90% of the cases referred for special investigations in the Hematology Clinic and give ample justification for each step in consideration of the relevant clinical data provided.
- The student is expected to acquire a general acquaintance of techniques and principles and to interpret data in the following fields.
  - a) Immunopathology
  - b) Electron microscopy
  - c) Histochemistry
  - d) Immunohistochemistry
  - e) Cytogenetics
  - f) Molecular Biology
  - g) Maintenance of records
  - h) Information retrieval, use of Computer and Internet in medicine.
  - i) Quality control, waste disposal

### **5.3.2. Transfusion Medicine (Blood Banking)**

- Basic immunology.

- ABO and Rh groups.
- Clinical significance of other blood groups.
- Transfusion therapy including the use of whole blood and RBC concentrates.
- Blood component therapy.
- Rationale of pre-transfusion testing.
- Infections transmitted in blood.
- Adverse reactions to transfusion of blood and components.
- Quality control in blood bank.

### 5.3.3. Laboratory Medicine

- Possess knowledge of the normal range of values of the chemical content of body fluids, significance of the altered values and its interpretation.
- Possess knowledge of the principles of following specialized organ function tests and the relative utility and limitations of each and significance of the altered values.
  - (i) Renal function tests
  - (ii) Liver function tests
  - (iii) Pancreatic function tests
  - (iv) Endocrine function tests
  - (v) Tests for malabsorption
- Know the principles, advantages and disadvantages, scope and limitation of automation in the laboratory.
- Know the principles and methodology of quality control in the laboratory.
- Know the principles of good clinical laboratory practices (GCLP)

### 5.4 Course 4: Recent Advances and Applied aspects

#### 5.4.1. Recent advances:

- Recent advances in Histopathology and Cytology
- Recent advances in Hematology and Transfusion medicines.

#### 5.4.2. Applied aspects:

- Demonstrate familiarity with the principles and techniques of electron microscopy and the working of an electron microscope (including Transmission and Scanning Electron microscope: TEM and SEM).
- Recognise the appearance of the normal subcellular organelles and their common abnormalities (when provided with appropriate photographs).
- Should be familiar with the principles, use and interpretation of common enzyme histochemical procedures (Alkaline Phosphatase, Acid Phosphatase, Glucose-6-Phosphate Dehydrogenase, Chloroacetate Esterase).

- Demonstrate familiarity with the principles and exact procedures of various immuno histochemical stains using both PAP (Peroxidase-antiperoxidase) and AP-AAP (Alk. Phosphatase-anti-Alk. Phosphatase) ABC (Avidin-Biotin Conjugate) systems; employing monoclonal and polyclonal antibodies.
- Be aware of the limitations of immuno-histochemistry.
- Should understand the principles of molecular biology especially related to the understanding of disease processes and its use in various diagnostic tests.
- Should be conversant with the principle and steps and interpretation of Polymerase Chain Reaction (PCR), Western Blot, Southern Blot, Northern Blot and Hybridisation) procedures.
- Demonstrate familiarity with methods of Karyotyping and Fluorescent in-situ Hybridisation (FISH).
- Demonstrate familiarity with methods of tissue culture.
- Demonstrate familiarity with importance of statistical methods in assessing data from patient material and experimental studies.
- Demonstrate familiarity with Biomedical Waste management disposal as per Biomedical Waste Management amendment. (2016 guidelines)

## **6. Teaching and learning methods**

### **6.1. Postgraduate Training Teaching methodology should be imparted to the students through:**

- Lectures, seminars, symposia, Inter- and intra- departmental meetings (clinic-pathological, Tumor board, Derm path, OG- Path, Ortho-Path meet), maternal morbidity/mortality meetings and journal club. Records of these are to be maintained by the department.
- By encouraging and allowing the students to attend and actively participate in CMEs, Conferences by presenting papers.
- Maintenance of log book: E-portfolio:- It is an electronic portfolio to be maintained by the resident to record their activities under the section:
  - EPA,
  - Daily log
  - Diagnostic work
  - Procedure
  - Dissertation
  - Academic activities (Seminar, symposium, case presentation, journal club)
  - Co-curricular activities (Conference, CME, Workshop),
  - Teaching Assignments,
  - Awards and achievements
  - Outreach activities.

- E-portfolios shall be checked and assessed periodically by the faculty members. This will enable to monitor progress of the resident, his level of attainment of milestone and impart the training accordingly
- Writing thesis following appropriate research methodology, ethical clearance and good clinical practice guidelines.
- The postgraduate students shall be required to participate in the teaching and training programme of undergraduate students and interns.
- A postgraduate student of a postgraduate degree course in broad specialities/super specialities would be required to present one poster presentation, to read one paper at a national/state conference and to present one research paper which should be published/accepted for publication/sent for publication during the period of his postgraduate studies so as to make him eligible to appear at the postgraduate degree examination.
- Department should encourage e-learning activities.

## **6.2. Practical Training**

- Collection of specimens including Fine Needle Aspiration of swellings.
- Grossing of specimens.
- Performing autopsies.
- Processing and Block making
- H&E staining
- PAP smear staining
- Peripheral smear staining.
- Bone marrow aspiration.
- Discussion during routine activities such as during signing out of cases.
- Presentation and work-up of cases including the identification of special stains and ancillary procedures needed.
- Research Presentation and review of research work.
- Laboratory work of haematological test.
- Selection and bleeding of donors
- Blood grouping and cross matching
- Coombs test
- Use and maintenance of equipment.
- Maintenance of records.

### 6.3. Rotations:

- Details of 3 years posting in the PG programme (6 terms of 6 months each)

	1st Mon	2nd Mon	3rd Mon	4th Mon	5th Mon	6th Mon	7th Mon	8th Mon	9th Mon	10th Mon	11th Mon	12th Mon
1st year	TEC	HM	HM	HM	C	C	C	H	H	H	BB	BB
2nd year	HM	HM	HM	C	C	C	H	H	H	H	MT	AP*
3rd year	HM	HM	HM	C	C	H	H	H	MP	MP	H	H

TEC–Labtechniques, HM-Hematology, C-Cytopathology, H-Histopathology, BB-Bloodbanking, MT-Museum Technique, MP- Molecular Pathology, AP-Allied post

### 6.4 Allied posts should be done during the course – for 4 weeks

- o Biochemistry- 2 weeks
- o Microbiology - 2 weeks

Section/Subject	Duration in months
● (i) Surgical Pathology and Autopsy and Pathology Techniques	12
● (ii) Haematology and Laboratory Medicine	10
● (iii) Cytopathology	08
● (iv) Transfusion Medicine/Blood Bank	02
● (v) Museum techniques and record management	01
● (vi) Basic Sciences including Immunopathology, Electron microscopy, Molecular Biology, Research Techniques and cytogenetic setc	02
	Total 35

Details of training in the subject during resident posting. The student should attend to the duties (Routine and emergency).

## 7. Assessment

### 7.1. Formative assessment:

Formative assessment is continual and assess medical knowledge, patient care, procedural & academic skills, interpersonal communications skills, system based practice, self-directed learning and professionalism of the activities mentioned every 3/6 monthly. EPAs are listed as below (Table 3) with description of each EPA (Table 4). Progress of the students is recorded after discussion with the student in Entrustable Professional Activity (EPA) assessment form Annexure-1. These EPAs are also mapped with PO and CO. (Table 5)

List the of Entrustable Professional Activity.

### 7.1.1. Table 3. List the of Entrustable Professional Activity

EPA No.	Entrustable Professional Activity
1.	Should be able to perform gross examination and sampling of surgical pathology specimens
2	Should be able to interpret gross and microscopic histo-morphological alterations in tissue.
3	Should be able to correlate histo-morphological alterations with relevant clinical, operative and radiological data and arrive at the diagnosis.
4	Should be able to process tissue bits
5	Should be able to take sections using microtome
6	Should be able to perform H and E stain
7	Should be able to decide appropriate special stain and perform it whenever necessary
8	Should be able to decide appropriate Immunohistochemical markers, perform and interpret
9	Should be able to interpret frozen sections
10	Should be familiar with indications and interpretation of ancillary techniques like Karyotyping, FISH, PCR, electron microscopy
11	Should be able to interpret and diagnose cytological smears
13	Should be able to interpret cytology of sputum, bronchial washings, serous effusions, etc
14	Should be able to prepare, stain and interpret peripheral smear
15	Should be able to interpret bone marrow smears
16	Should be able to perform and interpret routine haematological investigations like haemoglobin, TLC, DLC, ESR PCV, Blood indices
17	Should be able to perform and interpret special investigations like Retic count, Sickling test, Osmotic fragility test, haemoglobin electrophoresis, Fetal Haemoglobin, etc.
18	Should be able to plan investigations in a clinical case
19	Should be able to perform and interpret Urine Examination
20	Should be able to perform and interpret CSF, Pleural Fluid, Peritoneal Fluid, Synovial fluid examination.
21	Should be able to perform and interpret semen analysis.
22	Should be able to perform urgent investigations like CSF, Platelet count during emergency duties.
23	Should demonstrate familiarity with in laboratory investigations in Microbiology and biochemistry

24	Should be able to plan and execute internal quality control programme for laboratory
25	Should be able to participate in external quality control programme
26	Should be able to perform blood grouping and Rh typing
27	Should be able to perform cross-matching
28	Should be able to perform ELISA for infectious disease, Coomb's test
29	Should be able to separate blood components and have knowledge of indications of using blood components
30	Should have knowledge of criteria of selection of blood donors
31	Should be able to manage adverse donor reactions
32	Should be familiar with FDA regulations for blood bank
33	Should be able to investigate a case of mismatched blood transfusion
34	Should be able to participate in multidisciplinary meetings like tumor boards, CPCs, Dermato-Pathological conferences
35	Should be able to present oral and poster presentations, write paper in conferences
36	Should be able to teach pathology to undergraduates (MBBS), and allied health sciences like BDS, BSc (Nursing), BSc (MLT), BSc (Radiology), etc.
37	Should be able to supervise technicians
38	Should have thorough knowledge of Biomedical Waste disposal.
39	Should be familiar with norms and requirements of NABL, NABH Accreditation
40	Should be able to carry out systematic research work for dissertation
41	Should be able to perform as a team leader

**7.1.2 Description of Entrustable Professional Activity with relevant domains of competence, domain critical behavior**

EPA 1: Should be able to perform gross examination and sampling of surgical pathology specimens	
Description of the activity: This included a brief rationale and a list of the functions required for the EPA.	Residents should be able to perform routine grossing during histopathology postings. They should be able to identify the various pathological changes grossly. Grossly they have to arrive at certain differential diagnosis and identify the extent of the disease.
2. Most relevant domains of competence:	MK, PC, ICS, P
Competencies within each domain critical to entrustment decisions:	MK1.3, PC2.3, ICS1.4, P1.3
4. Methods of assessment	Periodic written exam (Every 6 months) Workplace assessment by Faculty Multisource feedback a. Health care workers b. Peers

**Table 4. EPAs, Competency levels and entrustability**

Competency	Pre-Entrustable	Entrustable
MK 1	<p><b>Fails to demonstrate</b> a knowledge of normal anatomy, histology and functions of various organs</p> <p>Fails to Explain pathogenesis and morphology of various organ system</p> <p><b>Fails to Demonstrate</b> the ability to identifies the gross morphological changes in organs</p> <p><b>Inability to Demonstrate</b> knowledge about the various microscopic changes in various disease</p>	<p><b>Demonstrates</b> a knowledge of normal anatomy, histology and functions of various organs <b>Explains</b> pathogenesis and morphology of various organ system</p> <p><b>Demonstrates</b> the ability to identifies the gross morphological changes in organs</p> <p><b>Demonstrates</b> knowledge about the various microscopic changes in various disease</p>
PC 2	<p><b>Inability to Perform</b> basic procedures, including Peripheral smear preparation and Pap smear.</p> <p><b>Fails to Demonstrates</b> basic technical procedures including use of universal precautions and aseptic technique</p> <p><b>Lack of Orientation</b> of resident to various procedures in reporting from sample reception to report despatch</p>	<p><b>Performs</b> basic procedures, including Peripheral smear preparation and Pap smear.</p> <p><b>Demonstrates</b> basic technical procedures including use of universal precautions and aseptic technique</p> <p><b>Orientation</b> of resident to various procedures in reporting from sample reception to report</p>

	<p>Does not Assist in grossing station, FNAC, bone marrow aspiration etc</p> <p>Fails to Perform Processing and staining, peripheral smear examination and assist in reporting.</p> <p>Fails to Perform grossing, FNAC and bone marrow aspiration.</p> <p>Does not Work effectively as a assistant in routine reporting in various sub- speciality of pathology</p>	<p>despatchAssistsingrossing station, FNAC, bone marrow aspiration etc</p> <p>Performs Processing and staining, peripheral smear examination and assist in reportingPerformPerforms grossing, FNAC and bone marrow aspiration.</p> <p>Works effectively as a assistant in routine reportingin various sub- speciality of pathology</p>
<b>ICS 1</b>	<p>Inability to Demonstrate adequate listening skills.</p> <p>Fails to Communicates effectively in routine clinical situations</p> <p>DoesnotVerbalize basic knowledge about common reports.</p> <p>Fails to Understands the importance of informed consent.Norenquiresfor patient and family understanding of illness and</p> <p>DoesnotMaintain communication with patient and family regarding the pathology report.</p> <p>Does not Communicate effectively in stressful, emergent, and complex</p>	<p>Demonstrates adequate listening skills. Communicates effectively in routine clinical situations Verbalizes basic knowledge about common reports, Understands the importance of informed consent Enquiresfor patient and family understanding of illness and Allows opportunities for patient questions</p> <p>Maintains communication with patient and family regarding the pathology report. Communicates effectively in stressful, emergent, and complex</p>
<b>P1</b>	<p>Lacks compassion, integrity, and respect in typical situations with patients, peers, and members of the health care team</p> <p>Lacks Consistentlytodemonstrate sensitivity and responsiveness to the diagnostic services</p>	<p>Consistentlyshows compassion, integrity, and respect in typical situations with patients, peers, and members of the health care team</p> <p>Consistentlydemonstrates sensitivity and responsiveness to the diagnostic services</p>

<b>EPA 2: Should be able to interpret gross and microscopic histomorphological alterations in tissue</b>	
1. Description of the activity: This included a brief rationale and a list of the functions required for the EPA.	Residents should be able to recognise the gross and microscopic changes in various disease
2. Most relevant domains of competence:	MK, PC, ICS, PBLI, P
3. Competencies within each domain critical to entrustment decisions:	<p>MK1.3.</p> <p>PC1.3</p> <p>ICS1.2</p> <p>PBLI2.3</p> <p>P1.2</p>
4.Methods of assessment	<p>Written exam (Every 6 months)</p> <p>Workplace assessment by Faculty</p> <p>Multisource feedback</p> <p>a. Health care workers</p> <p>b. Peers</p>

Competency	Pre-Entrustable	Entrustable
MK 1	<p>Fails to demonstrate a knowledge of normal anatomy, histology and functions of various organs</p> <p>Fails to Explain pathogenesis and morphology of various organ system</p> <p>Fails to Demonstrate the ability to identifies the gross morphological changes in organs</p> <p>Inability to Demonstrate knowledge about the various microscopic changes in various disease</p>	<p>Demonstrates a knowledge of normal anatomy, histology and functions of various organs</p> <p>Explains pathogenesis and morphology of various organ system</p> <p>Demonstrates the ability to identifies the gross morphological changes in organs</p> <p>Demonstrates knowledge about the various microscopic changes in various disease</p>
PC 1	<p>Inability to Perform basic procedures, including Peripheral smear preparation and Pap smear.</p> <p>Fails to Demonstrate basic technical procedures including use of universal precautions and aseptic technique</p> <p>Lack of Orientation of resident to various procedures in reporting from sample reception to report despatch</p> <p>Does not Assist in grossing station, FNAC, bone marrow aspiration etc</p> <p>Fails to Perform Processing and staining, peripheral smear examination and assist in reporting.</p> <p>Fail to Perform grossing, FNAC and bone marrow aspiration. Does not Work effectively as a assistant in routine reporting in various sub- speciality of pathology</p>	<p>Performs basic procedures, including Peripheral smear preparation and Pap smear.</p> <p>Demonstrates basic technical procedures including use of universal precautions and aseptic technique</p> <p>Orientation of resident to various procedures in reporting from sample reception to report despatch Assist in grossing station, FNAC, bone marrow aspiration etc</p> <p>Performs Processing and staining, peripheral smear examination and assist in reporting</p> <p>Performs grossing, FNAC and bone marrow aspiration. Works effectively as a assistant in routine reporting in various sub- speciality of pathology</p>
ICS 1	<p>Inability to Demonstrate adequate listening skills.</p> <p>Fails to Communicate effectively in routine clinical situations</p> <p>Does not Verbalize basic knowledge about common reports.</p> <p>Fails to Understand the importance of informed consent.</p> <p>Does not Enquire for patient and family understanding of illness and Does not Maintain communication with patient and family regarding the pathology report.</p> <p>Does not Communicate effectively in stressful, emergent, and complex</p>	<p>Demonstrates adequate listening skills.</p> <p>Communicates effectively in routine clinical situations</p> <p>Verbalizes basic knowledge about common reports,</p> <p>Understands the importance of informed consent, Enquires for patient and family understanding of illness and</p> <p>Allows opportunities for patient questions</p> <p>Maintains communication with patient and family regarding the pathology report.</p> <p>Communicates effectively in stressful, emergent, and complex</p>

PBLI 2	<p>Does not Show commitment to self-evaluation, lifelong learning, and patient safety.</p> <p>Fails to Demonstrate understanding of the basic concepts of Quality Indicators</p> <p>Inability to Readappropriate information, as assigned by the program or related to reporting formats</p> <p>Fails toUnderstand level of evidence for patient care recommendations.</p> <p>Lacks References and utilizes national standards or guidelines in reporting of various subspeciality of Pathology.</p> <p>Fails to identify quality of care issues within one’s own practice with a systems- based approach</p>	<p>Shows commitment to self- evaluation, lifelong learning, and patient safety.</p> <p>Demonstrates understanding of the basic concepts of Quality Indicators</p> <p>Reads appropriate information, as assigned by the program or related to reporting formats</p> <p>Understands level of evidence for patient care recommendations.</p> <p>References and utilizes national standards or guidelines in reporting of subspeciality of Pathology.</p> <p>Identifies quality of care issues within one’s own practice with a systems-based approach</p>
P 1	<p>Lacks Consistently compassion, integrity, and respect in typical situations with patients, peers, and members of the health care team</p> <p>Lacks Consistentlytodemonstrate sensitivity and responsiveness to the diagnostic services</p>	<p>Consistentlyshows compassion, integrity, and respect in typical situations with patients, peers, and members of the health care team</p> <p>Consistentlydemonstrates sensitivity and responsiveness to the diagnostic services</p>

<b>EPA 3:</b> Should be able to correlate histo-morphological alterations with relevant clinical, operative and radiological data and arrive at the diagnosis.	
1. Description of the activity: This included a brief rationale and a list of the functions required for the EPA.	Should be able to correlate histomorphological alterations with relevant clinical, operative and radiological data and arrive at the diagnosis.
2. Most relevant domains of competence:	MK, PC, ICS, P
3. Competencies within each domain critical to entrustment decisions:	MK1.3. PC 2.3 ICS 1.2 PBLI 2.3 P1.2
4. Methods of assessment	Written exam (Every 6 months) Workplace assessment by Faculty Multisource feedback a. Health care workers b. Peers

<b>Competency</b>	<b>Pre-Entrustable</b>	<b>Entrustable</b>
MK 1.2	<p>Fails to demonstrate a knowledge of normal anatomy, histology and functions of various organs</p> <p>Fails to Explain pathogenesis and morphology of various organ system</p> <p>Fails to Demonstrate the ability to identifies the gross morphological changes in organs</p> <p>Inability to Demonstrate knowledge about the various microscopic changes in various disease</p>	<p>Demonstrates a knowledge of normal anatomy, histology and functions of various organs</p> <p>Explains pathogenesis and morphology of various organ system</p> <p>Demonstrates the ability to identifies the gross morphological changes in organs</p> <p>Demonstrates knowledge about the various microscopic changes in various disease</p>
PC 2.1,2.2	<p>Inability to Perform basic procedures, including Peripheral smear preparation and Pap smear.</p> <p>Fails to Demonstrate basic technical procedures including use of universal precautions and aseptic technique</p> <p>Lack of Orientation of resident to various procedures in reporting from sample reception to report despatch</p> <p>Does not Assist in grossing station, FNAC, bone marrow aspiration etc</p> <p>Fails to Perform Processing and staining, peripheral smear examination and assist in reporting.</p> <p>FailstoPerform grossing, FNAC and bone marrow aspiration.</p> <p>Does not Work effectively as a assistant in routine reportingin various sub- speciality of pathology</p>	<p>Performs basic procedures, including Peripheral smear preparation and Pap smear.</p> <p>Demonstrates basic technical procedures including use of universal precautions and aseptic technique</p> <p>Orientation of resident to various procedures in reporting from sample reception to report despatch</p> <p>Assistsin grossing station, FNAC, bone marrow aspiration etc</p> <p>Performs Processing and staining, peripheral smear examination and assist in reporting</p> <p>Performs grossing, FNAC and bone marrow aspiration.</p> <p>Works effectively as a assistant in routine reportingin various sub- speciality of pathology</p>

ICS 1	<p>Inability to Demonstrate adequate listening skills.</p> <p>Fails to Communicate effectively in routine clinical situations Does not Verbalizes basic knowledge about common reports.</p> <p>Fails to Understand the importance of informed consent.</p> <p>Does NotEnquirefor patient and family understanding of illness and DoesnotMaintain communication with patient and family regardingthe pathology report.</p> <p>Does not Communicate effectively in stressful, emergent, and complex</p>	<p>Demonstrates adequate listening skills. Communicates effectively in routine clinical situations</p> <p>Verbalizes basic knowledge about common reports,</p> <p>Understands the importance of informed consent</p> <p>Enquiresfor patient and family understanding of illness and Allows opportunities for patient questions</p> <p>Maintain communication with patient and family regarding the pathology report. Communicates effectively in stressful, emergent, and complex</p>
PBLI 2	<p>Does not Show commitment to self-evaluation, lifelong learning, and patient safety.</p> <p>Fails to Demonstrate understanding of the basic concepts of Quality Indicators</p> <p>Inability to Readappropriate information, as assigned by the program or related to reporting formats</p> <p>Fails toUnderstand level of evidence for patient care recommendations.</p> <p>Lacks References and utilizes national standards or guidelines in reporting of various subspeciality of Pathology.</p> <p>Does notIdentify quality of care issues within one’s own practice with a systems- based approach</p>	<p>Shows commitment to self- evaluation, lifelong learning, and patient safety.</p> <p>Demonstrates understanding of the basic concepts of Quality Indicators</p> <p>Reads appropriate information, as assigned by the program or related to reporting formatsUnderstands level of evidence for patient care recommendations. References and utilizes national standards or guidelines in reporting of various subspeciality of Pathology. Identifies quality of care issues within one’s own practice with a systems- based approach</p>
P 1	<p>Lacks Consistently compassion, integrity, and respect in typical situations with patients, peers, and members of the health care team</p> <p>Lacks Consistentlytodemonstrate sensitivity and responsiveness to the diagnostic services</p>	<p>Consistentlyshows compassion, integrity, and respect in typical situations with patients, peers, and members of the health care team</p> <p>Consistentlydemonstrate sensitivity and responsiveness to the diagnostic services</p>

EPA 4: Should be able to process the tissue bits

1. Description of the activity: This included a brief rationale and a list of the functions required for the EPA.	Residents should be able to do the routine tissue processing in the histopathology lab. Able to troubleshoot in tissue processing.
2. Most relevant domains of competence:	MK, PC, P.
3. Competencies within each domain critical to entrustment decisions:	MK 1.3 PC2.3 P1.2
4. Methods of assessment	Written exam (Every 6 months) Workplace assessment by Faculty Multisource feedback a. Health care workers b. Peers

Competency	Pre-Entrustable	Entrustable
MK 1	<p>Fails to demonstrate a knowledge of normal anatomy, histology and functions of various organs</p> <p>Fails to Explain pathogenesis and morphology of various organ system</p> <p>Fails to Demonstrate the ability to identify the gross morphological changes in organs</p> <p>Inability to Demonstrate knowledge about the various microscopic changes in various disease</p>	<p>Demonstrates a knowledge of normal anatomy, histology and functions of various organs</p> <p>Explains pathogenesis and morphology of various organ system</p> <p>Demonstrates the ability to identify the gross morphological changes in organs</p> <p>Demonstrates knowledge about the various microscopic changes in various disease</p>
PC 2	<p>Inability to Perform basic procedures, including Peripheral smear preparation and Pap smear.</p> <p>Fails to Demonstrate basic technical procedures including use of universal precautions and aseptic technique</p> <p>Lack of Orientation of resident to various procedures in reporting from sample reception to report despatch</p> <p>Does not Assist in grossing station, FNAC, bone marrow aspiration etc</p> <p>Fails to Perform Processing and staining, peripheral smear examination and assist in reporting.</p> <p>Fails to Perform grossing, FNAC and bone marrow aspiration.</p> <p>Does not Work effectively as an assistant in routine reporting in various sub-speciality of pathology</p>	<p>Performs basic procedures, including Peripheral smear preparation and Pap smear.</p> <p>Demonstrates basic technical procedures including use of universal precautions and aseptic technique</p> <p>Orientation of resident to various procedures in reporting from sample reception to report despatch</p> <p>Assists in grossing station, FNAC, bone marrow aspiration etc</p> <p>Performs Processing and staining, peripheral smear examination and assist in reporting</p> <p>Performs grossing, FNAC and bone marrow aspiration. Works effectively as an assistant in routine reporting in various sub-speciality of pathology</p>
P1	<p>Lacks Consistently compassion, integrity, and respect in typical situations with patients, peers, and members of the health care team</p> <p>Lacks Consistently to demonstrate sensitivity and responsiveness to the diagnostic services</p>	<p>Consistently shows compassion, integrity, and respect in typical situations with patients, peers, and members of the health care team</p> <p>Consistently demonstrates sensitivity and responsiveness to the diagnostic services</p>

EPA 5: Should be able to take sections using microtome	
1. Description of the activity: This included a brief rationale and a list of the functions required for the EPA.	Residents should be able to take microtome sections in the histopathology lab. Able to trouble shoot in tissue processing
2. Most relevant domains of competence:	MK,PC, P.
3. Competencies within each domain critical to entrustment decisions:	MK 1.3, PC2.3P1.2
4. Methods of assessment	Written exam (Every 6 months) Workplace assessment by Faculty Multisource feedback a. Health care workers b. Peers

Competency	Pre-Entrustable	Entrustable
MK 1	<p><b>Fails to demonstrate</b> a knowledge of normal anatomy, histology and functions of various organs</p> <p><b>Fails to Explain</b> pathogenesis and morphology of various organ system</p> <p>Fails to Demonstrate the ability to identify the gross morphological changes in organs</p> <p><b>Inability to Demonstrate</b> knowledge about the various microscopic changes in various disease</p>	Demonstrates adequate knowledge on the classification, mechanism of action, adverse effects, dosage, drug interactions and uses of various groups of drugs available to treat a given medical condition. Understands & Explains the drug interactions and its clinical importance
PC 2	<p>Inability to Perform basic procedures, including Peripheral smear preparation and Pap smear.</p> <p>Fails to Demonstrate basic technical procedures including use of universal precautions and aseptic technique</p> <p>Lack of Orientation of resident to various procedures in reporting from sample reception to report despatch</p> <p>Does not Assist in grossing station, FNAC, bone marrow aspiration etc</p> <p>Fails to Perform Processing and staining, peripheral smear examination and assist in reporting.</p> <p>Fails to Perform grossing, FNAC and bone marrow aspiration.</p> <p>Does not Work effectively as a assistant in routine reporting in various sub- speciality of pathology</p>	<p>Performs basic procedures, including Peripheral smear preparation and Pap smear. Demonstrates basic technical procedures including use of universal precautions and aseptic technique</p> <p>Orientation of resident to various procedures in reporting from sample reception to report despatch</p> <p>Assists in grossing station, FNAC, bone marrow aspiration etc</p> <p>Performs Processing and staining, peripheral smear examination and assist in reporting</p> <p>Performs grossing, FNAC and bone marrow aspiration.</p> <p>Works effectively as a assistant in routine reporting in various sub- speciality of pathology</p>

P1	Lacks Consistently compassion, integrity, and respect in typical situations with patients, peers, and members of the health care team Lacks Consistently demonstrates sensitivity and responsiveness to the diagnostic services	Consistently shows compassion, integrity, and respect in typical situations with patients, peers, and members of the health care team Consistently demonstrates sensitivity and responsiveness to the diagnostic services
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EPA 6: Should be able to perform H and E stain	
1. Description of the activity: This included a brief rationale and a list of the functions required for the EPA.	Residents should be able to perform the hematoxylin and eosin stains for the tissue sections in the histopathology laboratory.
2. Most relevant domains of competence:	PC, P.
3. Competencies within each domain critical to entrustment decisions:	PC1.2 P1.2
4. Methods of assessment	Written exam (Every 6 months) Workplace assessment by Faculty Multisource feedback a. Health care workers b. Peers

Competency	Pre-Entrustable	Entrustable
PC 2	<b>Inability to Perform</b> basic procedures, including Peripheral smear preparation and Pap smear. <b>Fails to Demonstrate</b> basic technical procedures including use of universal precautions and aseptic technique <b>Lack of Orientation</b> of resident to various procedures in reporting from sample reception to report despatch Does not Assist in grossing station, FNAC, bone marrow aspiration etc Fails to Perform Processing and staining, peripheral smear examination and assist in reporting. Fails to Perform grossing, FNAC and bone marrow aspiration. Does not Work effectively as a assistant in routine reporting in various sub- speciality of pathology	Demonstrates adequate knowledge on field of Pharmacoeconomics, various methods to analyse the cost and effectiveness of a drug Understands & Explains the methods of Pharmacoeconomic analysis. procedures in reporting from sample reception to report despatch Assists in grossing station, FNAC, bone marrow aspiration etc Performs Processing and staining, peripheral smear examination and assist in reporting Performs grossing, FNAC and bone marrow aspiration. Works effectively as a assistant in routine reporting in various sub- speciality of pathology
P1	Lacks Consistently compassion, integrity, and respect in typical situations with patients, peers, and members of the health care team Lacks Consistently demonstrates sensitivity and responsiveness to the diagnostic services	Consistently shows compassion, integrity, and respect in typical situations with patients, peers, and members of the health care team Consistently demonstrates sensitivity and responsiveness to the diagnostic services

EPA 7: Should be able to decide appropriate special stain and perform it whenever necessary	
1. Description of the activity: This included a brief rationale and a list of the functions required for the EPA.	Residents should be able to recognise the microscopic findings and able to apply the various special stains related to the morphological pattern. Also apply special stains in various situation like tumors, infectious disease, etc
2. Most relevant domains of competence:	MK, PC, P
3. Competencies within each domain critical to entrustment decisions:	MK 4.3, PC2.2, PC3.3, P 1
4. Methods of assessment	Written exam (Every 6 months) Workplace assessment by Faculty Multisource feedback a. Health care workers, b. Peers

Competency	Pre-Entrustable	Entrustable
MK 4	Does not Recall the procedures of histopathology lab, cytology lab and hematology and blood bank. Inability to Demonstrate knowledge of fixation, tissue processing, stains and cytotechniques and haematological test. Fails to Recommend special stain, IHC and special tests in various subspeciality of Pathology.	Recalls the procedures of histopathology lab, cytology lab and hematology and blood bank. Demonstrates knowledge of fixation, tissue processing, stains and cytotechniques and haematological test. Recommends special stain, IHC and special tests in various subspeciality of Pathology.
PC 2	Inability to Perform basic procedures, including Peripheral smear preparation and Pap smear. Fails to Demonstrate basic technical procedures including use of universal precautions and aseptic technique Lack of Orientation of resident to various procedures in reporting from sample reception to report despatch Does not Assist in grossing station, FNAC, bone marrow aspiration etc Fails to Perform Processing and staining, peripheral smear examination and assist in reporting. Fails to Perform grossing, FNAC and bone marrow aspiration. Does not Work effectively as a assistant in routine reporting in various sub- speciality of pathology	Performs basic procedures, including Peripheral smear preparation and Pap smear. Demonstrates basic technical procedures including use of universal precautions and aseptic technique Orientation of resident to various procedures in reporting from sample reception to report despatch Assists in grossing station, FNAC, bone marrow aspiration etc Performs Processing and staining, peripheral smear examination and assist in reporting Performs grossing, FNAC and bone marrow aspiration. Works effectively as a assistant in routine reporting in various sub- speciality of pathology

PC 3	Lacks Interpretation of commonly performed laboratory data, imaging studies. Lacks Correlating the laboratory data, imaging studies with underlying pathology. Inability to Formulate reporting protocol with grading and staging which helps in treatment and prognostication of particular disease. Does not Maintain the proper Turn Around Time(TAT) for reporting of results	Interpretation of commonly performed laboratory data, imaging studies. Correlating the laboratory data, imaging studies with underlying pathology. Formulates reporting protocol with grading and staging which helps in treatment and prognostication of particular disease. Maintains the proper Turn Around Time(TAT) for reporting of results
P 1	Lacks Consistently compassion, integrity, and respect in typical situations with patients, peers, and members of the health care team Lacks Consistently demonstrate sensitivity and responsiveness to the diagnostic services	Consistently shows compassion, integrity, and respect in typical situations with patients, peers, and members of the health care team Consistently demonstrates sensitivity and responsiveness to the diagnostic services

EPA 8: Should be able to decide appropriate immunohistochemical markers, perform and interpret

1. Description of the activity: This included a brief rationale and a list of the functions required for the EPA.	Residents should be able to order the IHC markers based on the morphology especially in tumor diagnosis. They should be able to perform the IHC procedure and its trouble shooting. Resident should know the IHC reporting format for various markers.
2. Most relevant domains of competence:	MK, PC, PBLI, P
3. Competencies within each domain critical to entrustment decisions:	MK 4.3, PC 2.3, PC 3.2, PBLI 2.2 P 1.3
4. Methods of assessment	Written exam (Every 6 months) Workplace assessment by Faculty Multisource feedback a. Health care workers, b. Peers

Competency	Pre-Entrustable	Entrustable
MK 4	Does not Recall the procedures of histopathology lab, cytology lab and hematology and blood bank. Inability to Demonstrate knowledge of fixation, tissue processing, stains and cytotechniques and haematological test. Fails to Recommend special stain, IHC and special tests in various subspeciality of Pathology.	Recalls the procedures of histopathology lab, cytology lab and hematology and blood bank. Demonstrates knowledge of fixation, tissue processing, stains and cytotechniques and haematological test. Recommends special stain, IHC and special tests in various subspeciality of Pathology.

PC 2	<p>Inability to Perform basic procedures, including Peripheral smear preparation and Pap smear.</p> <p>Fails to Demonstrate basic technical procedures including use of universal precautions and aseptic technique</p> <p>Lack of Orientation of resident to various procedures in reporting from sample reception to report despatch</p> <p>Does not Assist in grossing station, FNAC, bone marrow aspiration etc</p> <p>Fails to Perform Processing and staining, peripheral smear examination and assist in reporting.</p> <p>Fails to Perform grossing, FNAC and bone marrow aspiration.</p> <p>Do not Works effectively as a assistant in routine reporting in various sub- speciality of pathology</p>	<p>Performs basic procedures, including Peripheral smear preparation and Pap smear.</p> <p>Demonstrates basic technical procedures including use of universal precautions and aseptic technique, Orientation of resident to various procedures in reporting from sample reception to report despatch.</p> <p>Assists in grossing station, FNAC, bone marrow aspiration etc Performs Processing and staining, peripheral smear examination and assist in reporting Performs grossing, FNAC and bone marrow aspiration. Works effectively as a assistant in routine reporting in various sub- speciality of pathology</p>
PC3	<p>Lacks Interpretation of commonly performed laboratory data, imaging studies.</p> <p>Correlating the laboratory data, imaging studies with underlying pathology. Inability to Formulate reporting protocol with grading and staging which helps in treatment and prognostication of particular disease.</p> <p>Does not Maintain the proper Turn Around Time(TAT) for reporting of results</p>	<p>Interpretation of commonly performed laboratory data, imaging studies.</p> <p>Correlating the laboratory data, imaging studies with underlying pathology.</p> <p>Formulates reporting protocol with grading and staging which helps in treatment and prognostication of particular disease.</p> <p>Maintains the proper Turn Around Time(TAT) for reporting of results</p>
PBLI2	<p>Does not Show commitment to self-evaluation, lifelong learning, and patient safety.</p> <p>Fails to Demonstrate understanding of the basic concepts of Quality Indicators</p> <p>Inability to Read appropriate information, as assigned by the program or related to reporting formats</p> <p>Fails to Understand level of evidence for patient care recommendations.</p> <p>Lacks References and utilizes national standards or guidelines in reporting of various subspeciality of Pathology.</p> <p>Fails to Identify quality of care issues within one's own practice with a systems- based approach</p>	<p>Shows commitment to self- evaluation, lifelong learning, and patient safety.</p> <p>Demonstrates understanding of the basic concepts of Quality Indicators</p> <p>Reads appropriate information, as assigned by the program or related to reporting formats</p> <p>Understands level of evidence for patient care recommendations.</p> <p>References and utilizes national standards or guidelines in reporting of various subspeciality of Pathology.</p> <p>Identifies quality of care issues within one's own practice with a systems- based approach</p>
P1	<p>Lacks Consistently compassion, integrity, and respect in typical situations with patients, peers, and members of the health care team</p> <p>Lacks Consistently to demonstrate sensitivity and responsiveness to the diagnostic services</p>	<p>Consistently shows compassion, integrity, and respect in typical situations with patients, peers, and members of the health care team</p> <p>Consistently demonstrates sensitivity and responsiveness to the diagnostic services</p>

EPA 9: Should be able to interpret frozen sections.	
1. Description of the activity: This included a brief rationale and a list of the functions required for the EPA.	Residents should be able to perform the techniques of frozen section and report the frozen section.
2. Most relevant domains of competence:	MK, PC,PBLI,P
3. Competencies within each domain critical to entrustment decisions:	MK 4.3 PC2.3 PC 3.2 PBLI 2.2 P 1.3
4.Methods of assessment	Written exam (Every 6 months) Workplace assessment by Faculty Multisource feedback a. Health care workers b. Peers

Competency	Pre-Entrustable	Entrustable
MK 4	Does not Recall the procedures of histopathology lab, cytology lab and hematology and blood bank. Inability to Demonstrate knowledge of fixation, tissue processing, stains and cytotechniques and haematological test. Fails to Recommend special stain, IHC and special tests in various subspeciality of Pathology.	Recalls the procedures of histopathology lab, cytology lab and hematology and blood bank. Demonstrates knowledge of fixation, tissue processing, stains and cytotechniques and haematological test. Recommends special stain, IHC and special tests in various subspeciality of Pathology.
PC 2	Inability to Perform basic procedures, including Peripheral smear preparation and Pap smear. Fails to Demonstrates basic technical procedures including use of universal precautions and aseptic technique Lack of Orientation of resident to various procedures in reporting from sample reception to report despatch Does not Assist in grossing station, FNAC, bone marrow aspiration etc Fails to Perform Processing and staining, peripheral smear examination and assist in reporting. Fails to Perform grossing, FNAC and bone marrow aspiration. Do not Work effectively as a assistant in routine reporting in various sub- speciality of pathology	Performs basic procedures, including Peripheral smear preparation and Pap smear. Demonstrates basic technical procedures including use of universal precautions and aseptic technique Orientation of resident to various procedures in reporting from sample reception to report despatch Assists in grossing station, FNAC, bone marrow aspiration etc Performs Processing and staining, peripheral smear examination and assist in reporting Performs grossing, FNAC and bone marrow aspiration. Works effectively as a assistant in routine reporting in various sub- speciality of pathology

PC3	Lacks Interpretation of commonly performed laboratory data, imaging studies. Correlating the laboratory data, imaging studies with underlying pathology. Inability to Formulate reporting protocol with grading and staging which helps in treatment and prognostication of particular disease. Does not Maintain the proper Turn Around Time(TAT) for reporting of results	Interpretation of commonly performed laboratory data, imaging studies. Correlating the laboratory data, imaging studies with underlying pathology. Formulates reporting protocol with grading and staging which helps in treatment and prognostication of particular disease. Maintains the proper Turn Around Time(TAT) for reporting of results
PBLI2	Does not Show commitment to self-evaluation, lifelong learning, and patient safety. Fails to Demonstrate understanding of the basic concepts of Quality Indictaors Inability to Readappropriate information, as assigned by the program or related to reporting formats Fails toUnderstands level of evidence for patient care recommendations. Lacks References and utilizes national standards or guidelines in reporting of various subspeciality of Pathology. Fails to identify quality of care issues within one's own practice with a systems- based approach	Shows commitment to self- evaluation, lifelong learning, and patient safety. Demonstrates understanding of the basic concepts of Quality Indictaors Reads appropriate information, as assigned by the program or related to reporting formats Understands level of evidence for patient care recommendations. References and utilizes national standards or guidelines in reporting of various subspeciality of Pathology. Identifies quality of care issues within one's own practice with a systems- based approach
P1	Lacks Consistentlycompassion, integrity, and respect in typical situations with patients, peers, and members of the health care team Lacks Consistentlytodemonstrate sensitivity and responsiveness to the diagnostic services	Consistentlyshows compassion, integrity, and respect in typical situations with patients, peers, and members of the health care team Consistentlydemonstrates sensitivity and responsiveness to the diagnostic services

EPA 10: Should be familiar with indications and interpretation of ancillary techniques like Karyotyping, FISH, PCR, electron microscopy	
1. Description of the activity: This included a brief rationale and a list of the functions required for the EPA.	Resident Shouldbe familiar with indications and interpretation of ancillary techniques like Karyotyping, FISH, PCR, electron microscopy. Also able to interpret various molecular techniques in diagnostic services.
2. Most relevant domains of competence:	PC, PBLI, P
3. Competencies within each domain critical to entrustment decisions:	PC2.3, PBLI 2.2, P 1.3
4. Methods of assessment	Written exam (Every 6 months) Workplace assessment by Faculty Multisource feedback a. Health care workers b. Peers

Competency	Pre-Entrustable	Entrustable
PC 2	<p>Inability to Perform basic procedures, including Peripheral smear preparation and Pap smear.</p> <p>Fails to Demonstrate basic technical procedures including use of universal precautions and aseptic technique</p> <p>Lack of Orientation of resident to various procedures in reporting from sample reception to report despatchDoes not Assist in grossing station, FNAC, bone marrow aspiration etc</p> <p>Fails to Perform Processing and staining, peripheral smear examination and assist in reporting.</p> <p>Fails to Perform grossing, FNAC and bone marrow aspiration.</p> <p>Do not Works effectively as a assistant in routine reporting in various sub- speciality of pathology</p>	<p>Performs basic procedures, including Peripheral smear preparation and Pap smear.</p> <p>Demonstrates basic technical procedures including use of universal precautions and aseptic technique</p> <p>Orientation of resident to various procedures in reporting from sample reception to report despatchAssists in grossing station, FNAC, bone marrow aspiration etc</p> <p>Performs Processing and staining, peripheral smear examination and assist in reporting</p> <p>Performs grossing, FNAC and bone marrow aspiration.</p> <p>Works effectively as a assistant in routine reporting in various sub- speciality of pathology</p>
PBLI2	<p>Does not Show commitment to self- evaluation, lifelong learning, and patient safety.</p> <p>Fails to Demonstrates understanding of the basic concepts of Quality Indicators</p> <p>Inability to Read appropriate information, as assigned by the program or related to reporting formats</p> <p>Fails to Understand level of evidence for patient care recommendations.</p> <p>Lacks References and utilizes national standards or guidelines in reporting of various subspeciality of Pathology. Fails to identify quality of care issues within one's own practice with a systems- based approach</p>	<p>Shows commitment to self- evaluation, lifelong learning, and patient safety.</p> <p>Demonstrates understanding of the basic concepts of Quality Indicators Reads appropriate information, as assigned by the program or related to reporting formats</p> <p>Understands level of evidence for patient care recommendations. References and utilizes national standards or guidelines in reporting of various subspeciality of Pathology. Identifies quality of care issues within one's own practice with a systems- based approach</p>
P1	<p>Lacks Consistently compassion, integrity, and respect in typical situations with patients, peers, and members of the health care team</p> <p>Lacks Consistently todemonstrate sensitivity and responsiveness to the diagnostic services</p>	<p>Consistently shows compassion, integrity, and respect in typical situations with patients, peers, and members of the health care team</p> <p>Consistently demonstrates sensitivity and responsiveness to the diagnostic services</p>

EPA 11: Should be able to interpret and diagnose cytological smears	
1. Description of the activity: This included a brief rationale and a list of the functions required for the EPA.	Residents should have knowledge about the Cytomorphology of various systems. Resident should be able to diagnose the various cytological disorders.
2. Most relevant domains of competence:	MK, PC.
3. Competencies within each domain critical to entrustment decisions:	MK1.2 MK2.2 PC1.2
4. Methods of assessment	Written exam (Every 6 months) Workplace assessment by Faculty Multisource feedback a Health care workers b. Peers

Competency	Pre-Entrustable	Entrustable
MK 1	<p>Fails to demonstrate a knowledge of normal anatomy, histology and functions of various organs</p> <p>Fails to Explain pathogenesis and morphology of various organ system</p> <p>Fails to Demonstrate the ability to identifies the gross morphological changes in organs</p> <p>Inability to Demonstrate knowledge about the various microscopic changes in various disease</p>	<p>Demonstrates a knowledge of normal anatomy, histology and functions of various organs</p> <p>Explain pathogenesis and morphology of various organ system</p> <p>Demonstrates the ability to identifies the gross morphological changes in organs</p> <p>Demonstrates knowledge about the various microscopic changes in various disease</p>
MK 2	<p>Lacks Demonstration of ability to formulate a differential diagnosis of various pathological conditions.</p> <p>Fails to Demonstrate an understanding of disease process and morphological changes</p> <p>Inability to Demonstrate the ability to formulate comprehensive reporting format</p> <p>Lacks knowledge relevant to reporting of various fields like surgical Pathology, Cytology and hematology.</p> <p>In ability to Interpret tests appropriate to disease with differential diagnosis.</p>	<p>Demonstrates the ability to formulate a differential diagnosis of various pathological conditions. Demonstrates an understanding of disease process and morphological changes</p> <p>Demonstrates the ability to formulate comprehensive reporting format</p> <p>Demonstrates knowledge relevant to reporting of various fields like surgical Pathology, Cytology and hematology.</p> <p>Demonstrates the ability to Interpret tests appropriate to disease with differential diagnosis.</p>
PC 1	<p>Lacks Demonstration of basic knowledge of various common and uncommon diseases.</p> <p>FailstoPerform basic history taking and physical examination appropriate for routine diagnosis.</p> <p>FailstoInterpret test results and screens for various pathological diseases</p>	<p>Demonstrates basic knowledge of various common and uncommon diseases.</p> <p>Performs basic history taking and physical examination appropriate for routine diagnosis. Interprets test results and screens for various pathological diseases</p>

EPA 12 : Should be able to interpret cytology of sputum, bronchial washings, serous effusions, etc	
1. Description of the activity: This included a brief rationale and a list of the functions required for the EPA.	Residents should have knowledge about the Cytomorphology of various effusions. Resident should be able to diagnose the various effusions.
2. Most relevant domains of competence:	MK, PC.
3. Competencies within each domain critical to entrustment decisions:	MK1.2 MK2.2 PC1.2
4. Methods of assessment	Written exam (Every 6 months) Workplace assessment by Faculty Multisource feedback a Health care workers b. Peers

Competency	Pre-Entrustable	Entrustable
MK 1	<p>Fails to demonstrate a knowledge of normal anatomy, histology and functions of various organs</p> <p>Fails to Explain pathogenesis and morphology of various organ system</p> <p>Fails to Demonstrate the ability to identifies the gross morphological changes in organs</p> <p>Inability to Demonstrate knowledge about the various microscopic changes in various disease</p>	<p>Demonstrates a knowledge of normal anatomy, histology and functions of various organs</p> <p>Explains pathogenesis and morphology of various organ system</p> <p>Demonstrates the ability to identifies the gross morphological changes in organs</p> <p>Demonstrates knowledge about the various microscopic changes in various disease</p>
MK 2	<p>Lacks Demonstration of ability to formulate a differential diagnosis of various pathological conditions.</p> <p>Fails to Demonstrate an understanding of disease process and morphological changes</p> <p>Inability to Demonstrate the ability to formulate comprehensive reporting format</p> <p>Lacks knowledge relevant to reporting of various fields like surgical Pathology, Cytology and hematology.</p> <p>In ability to Interpret tests appropriate to disease with differential diagnosis.</p>	<p>Demonstrates the ability to formulate a differential diagnosis of various pathological conditions.</p> <p>Demonstrates an understanding of disease process and morphological changes</p> <p>Demonstrates the ability to formulate comprehensive reporting format</p> <p>Demonstrates knowledge relevant to reporting of various fields like surgical Pathology, Cytology and hematology.</p> <p>Demonstrates the ability to Interpret tests appropriate to disease with differential diagnosis</p>
PC 1	<p>Lacks Demonstration of basic knowledge of various common and uncommon diseases</p> <p>FailstoPerform basic history taking and physical examination appropriate for routine diagnosis.</p> <p>FailstoInterpret test results and screens for various pathological diseases</p>	<p>Demonstrates basic knowledge of various common and uncommon diseases.</p> <p>Performs basic history taking and physical examination appropriate for routine diagnosis.</p> <p>Interprets test results and screens for various pathological diseases</p>

EPA 13 : Should be able to prepare, stain and interpret peripheral smear	
1. Description of the activity: This included a brief rationale and a list of the functions required for the EPA.	Resident should be able to prepare the Leishman stain manually and perform the staining procedure. Resident should be able to interpret the peripheral smear report like RBC morphology, WBC morphology, Platelets, parasites, etc
2. Most relevant domains of competence:	MK, PC, ICSI, PBLI, P
3. Competencies within each domain critical to entrustment decisions:	MK2.3, PC1.3, ICS 3.2, PBLI2.3 P1.3
4. Methods of assessment	Written exam (Every 6 months) Workplace assessment by Faculty Multisource feedback a. Health care workers, b. Peers

Competency	Pre-Entrustable	Entrustable
MK 2	Lacks Demonstration of ability to formulate a differential diagnosis of various pathological conditions. Fails to Demonstrate an understanding of disease process and morphological changes Inability to Demonstrate the ability to formulate comprehensive reporting format Lacks knowledge relevant to reporting of various fields like surgical Pathology, Cytology and hematology. In ability to Interpret tests appropriate to disease with differential diagnosis.	Demonstrates the ability to formulate a differential diagnosis of various pathological conditions. Demonstrates an understanding of disease process and morphological changes Demonstrates the ability to formulate comprehensive reporting format Demonstrates knowledge relevant to reporting of various fields like surgical Pathology, Cytology and hematology. Demonstrates the ability to Interpret tests appropriate to disease with differential diagnosis.
PC 1	Lacks Demonstration of basic knowledge of various common and uncommon diseases. Fails to Perform basic history taking and physical examination appropriate for routine diagnosis. Fails to Interpret test results and screens for various pathological diseases	Demonstrates basic knowledge of various common and uncommon diseases. Performs basic history taking and physical examination appropriate for routine diagnosis. Interprets test results and screens for various pathological diseases
ICS 3	Fails to understand the importance of informed consent for FNAC, Bone marrow aspiration, etc. Inability to engage patients in shared decision making, and obtains informed consent for basic procedures like FNAC, Bone marrow aspiration, etc.	Understands the importance of informed consent for FNAC, Bone marrow aspiration, etc. Begins to engage patients in shared decision making, and obtains informed consent for basic procedures like FNAC, Bone marrow aspiration, etc.

PBLI2	<p>Does not Show commitment to self-evaluation, lifelong learning, and patient safety.</p> <p>Fails to Demonstrate understanding of the basic concepts of Quality Indictaors</p> <p>Inability to Readappropriate information, as assigned by the program or related to reporting formats</p> <p>Fails toUnderstand level of evidence for patient care recommendations.</p> <p>Lacks References and utilizes national standards or guidelines in reporting of various subspeciality of Pathology.</p> <p>Fails toIdentify quality of care issues within one’s own practice with a systems- based approach</p>	<p>Shows commitment to self- evaluation, lifelong learning, and patient safety.</p> <p>Demonstrates understanding of the basic concepts of Quality Indictaors</p> <p>Reads appropriate information, as assigned by the program or related to reporting formats</p> <p>Understands level of evidence for patient care recommendations.</p> <p>References and utilizes national standards or guidelines in reporting of subspecialities of Pathology.</p> <p>Identifies quality of care issues within one’s own practice with a systems- based approach</p>
P1	<p>Lacks Consistently compassion, integrity, and respect in typical situations with patients, peers, and members of the health care team</p> <p>Lacks Consistentlytodemonstrate sensitivity and responsiveness to the diagnostic services</p>	<p>Consistentlyshows compassion, integrity, and respect in typical situations with patients, peers, and members of the health care team</p> <p>Consistentlydemonstrates sensitivity and responsiveness to the diagnostic services</p>

EPA 14: Should be able to interpret bone marrow smears	
1. Description of the activity: This included a brief rationale and a list of the functions required for the EPA.	Resident should be able to interpret the Bone marrow aspiration and biopsy.
2. Most relevant domains of competence:	domains of competence: MK PC ICSI PBLI P
3. Competencies within each domain critical to entrustment decisions:	MK2.3 PC1.3 ICS 3.2 PBLI2.3 P1.3
4. Methods of assessment	Written exam (Every 6 months) Workplace assessment by Faculty Multisource feedback a. Health care workers b. Peers

Competency	Pre-Entrustable	Entrustable
MK 2	<p>Lacks Demonstration of ability to formulate a differential diagnosis of various pathological conditions.</p> <p>Fails to Demonstrate an understanding of disease process and morphological changes</p> <p>Inability to Demonstrate the ability to formulate comprehensive reporting format</p> <p>Lacks knowledge relevant to reporting of various fields like surgical Pathology, Cytology and hematology.</p> <p>In ability to Interpret tests appropriate to disease with differential diagnosis.</p>	<p>Demonstrates the ability to formulate a differential diagnosis of various pathological conditions.</p> <p>Demonstrates an understanding of disease process and morphological changes</p> <p>Demonstrates the ability to formulate comprehensive reporting format</p> <p>Demonstrates knowledge relevant to reporting of various fields like surgical Pathology, Cytology and hematology. Demonstrates the ability to Interpret tests appropriate to disease with differential diagnosis.</p>
PC 1	<p>Lacks Demonstration of basic knowledge of various common and uncommon diseases.</p> <p>FailstoPerform basic history taking and physical examination appropriate for routine diagnosis.</p> <p>FailstoInterpret test results and screens for various pathological diseases</p>	<p>Demonstrates basic knowledge of various common and uncommon diseases.</p> <p>Performs basic history taking and physical examination appropriate for routine diagnosis. Interprets test results and screens for various pathological diseases</p>
ICS 3	<p>Fail to understandthe importance of informed consent for FNAC, Bone marrow aspiration, etc.</p> <p>Inabilityto engage patients in shared decision making, and obtains informed consent for basic procedures like FNAC, Bone marrow aspiration, etc.</p>	<p>Understands the importance of informed consent for FNAC, Bone marrow aspiration, etc.</p> <p>Begins to engage patients in shared decision making, and obtains informed consent for basic procedures like FNAC, Bone marrow aspiration, etc.</p>
PBLI2	<p>Does not Show commitment to self-evaluation, lifelong learning, and patient safety.</p> <p>Fails to Demonstrate understanding of the basic concepts of Quality Indicators</p> <p>Inability to Readappropriate information, as assigned by the program or related to reporting formats</p> <p>Fails toUnderstand level of evidence for patient care recommendations.</p> <p>Lacks References and utilizes national standards or guidelines in reporting of sub-specialities of Pathology.</p> <p>Fails toIdentify quality of care issues within one’s own practice with a systems- based approach</p>	<p>Shows commitment to self- evaluation, lifelong learning, and patient safety.</p> <p>Demonstrates understanding of the basic concepts of Quality Indicators</p> <p>Reads appropriate information, as assigned by the program or related to reporting formats</p> <p>Understand level of evidence for patient care recommendations.</p> <p>References and utilizes national standards or guidelines in reporting of various sub-speciality of Pathology.</p> <p>Identifies quality of care issues within one’s own practice with a systems-based approach</p>
P1	<p>Lacks Consistently compassion, integrity, and respect in typical situations with patients, peers, and members of the health care team</p> <p>Lacks Consistentlytodemonstrate sensitivity and responsiveness to the diagnostic services</p>	<p>Consistentlyshows compassion, integrity, and respect in typical situations with patients, peers, and members of the health care team</p> <p>Consistentlydemonstrates sensitivity and responsiveness to the diagnostic services</p>

EPA 15 :Should be able to perform and interpret routine haematological investigations like haemoglobin, TLC, DLC, ESR PCV, Blood indices.	
1. Description of the activity: This included a brief rationale and a list of the functions required for the EPA.	Should be able to perform routine haematological investigations like haemoglobin, TLC, DLC, ESR PCV, Blood indices. Resident should be able to report the Complete blood counts (CBCs) both manually and using automated cell counters.
2. Most relevant domains of competence:	MK, PC, ICS1, P
3. Competencies within each domain critical to entrustment decisions:	within each domain critical to entrustment decisions: MK2.3, PC1.3, ICS 2.3, P1.3
4. Methods of assessment	Written exam (Every 6 months) Workplace assessment by Faculty Multisource feedback a. Health care workers, b. Peers

Competency	Pre-Entrustable	Entrustable
SBP: 4.1, 4.2, 4.4	Lacks Demonstration of ability to formulate a differential diagnosis of various pathological conditions. Fails to Demonstrate an understanding of disease process	Demonstrates the ability to formulate a differential diagnosis of various pathological conditions. Demonstrates an understanding of disease process and morphological changes
PBL 5.1	Fails to follow the specific guidelines to design a protocol for clinical or experimental study Fails to Analyse and apply the knowledge of basics of research methodology, ethical guidelines and basic biostatistics for design a protocol for clinical or experimental study Fails to design a protocol for clinical or experimental study and morphological changes Inability to Demonstrate the ability to formulate comprehensive reporting format Lacks knowledge relevant to reporting of various fields like surgical Pathology, Cytology and hematology. In ability to Interpret tests appropriate to disease with differential diagnosis	Follows the specific guidelines to design a protocol for clinical or experimental study Analyses and apply the knowledge of basics of research methodology, ethical guidelines and basic biostatistics for design a protocol for clinical or experimental study Designs a protocol for clinical or experimental study Demonstrates the ability to formulate comprehensive reporting format Demonstrates knowledge relevant to reporting of various fields like surgical Pathology, Cytology and hematology. Demonstrates the ability to Interpret tests appropriate to disease with differential diagnosis.
PC 1	Lacks Demonstration of basic knowledge of various common and uncommon diseases. Fails to Perform basic history taking and physical examination appropriate for routine diagnosis. Fails to Interpret test results and screens for various pathological diseases	Demonstrates basic knowledge of various common and uncommon diseases. Performs basic history taking and physical examination appropriate for routine diagnosis. Interprets test results and screens for various pathological diseases

ICS 3	Fail to understand the importance of informed consent for FNAC, Bone marrow aspiration, etc. Inability to engage patients in shared decision making, and obtains informed consent for basic procedures like FNAC, Bone marrow aspiration, etc.	Understands the importance of informed consent for FNAC, Bone marrow aspiration, etc. Begins to engage patients in shared decision making, and obtains informed consent for basic procedures like FNAC, Bone marrow aspiration, etc.
P1	Lacks Consistently compassion, integrity, and respect in typical situations with patients, peers, and members of the health care team Lacks Consistently to demonstrate sensitivity and responsiveness to the diagnostic services	Consistently shows compassion, integrity, and respect in typical situations with patients, peers, and members of the health care team Consistently demonstrates sensitivity and responsiveness to the diagnostic services

EPA 16 : Should be able to perform and interpret special investigations like Reticulocyte count, Sickling test, Osmotic fragility test, haemoglobin electrophoresis, Fetal Haemoglobin, etc.	
1. Description of the activity: This included a brief rationale and a list of the functions required for the EPA.	Resident should be able to perform and interpret special investigations like Reticulocyte count, Sickling test, Osmotic fragility test, haemoglobin electrophoresis, Fetal Haemoglobin, etc.
2. Most relevant domains of competence:	MK, PC, ICS1, P
3. Competencies within each domain critical to entrustment decisions:	MK2.3, PC1.3, ICS 2.3, P1.3
4. Methods of assessment	Written exam (Every 6 months) Workplace assessment by Faculty Multisource feedback a. Health care workers, b. Peers

Competency	Pre-Entrustable	Entrustable
MK 2	Lacks Demonstration of ability to formulate a differential diagnosis of various pathological conditions. Fails to Demonstrate an understanding of disease process and morphological changes Inability to Demonstrate the ability to formulate comprehensive reporting format Lacks knowledge relevant to reporting of various fields like surgical Pathology, Cytology and hematology. In ability to Interpret tests appropriate to disease with differential diagnosis.	Demonstrates the ability to formulate a differential diagnosis of various pathological conditions. Demonstrates an understanding of disease process and morphological changes Demonstrates the ability to formulate comprehensive reporting format Demonstrates knowledge relevant to reporting of various fields like surgical Pathology, Cytology and hematology. Demonstrates the ability to Interpret tests appropriate to disease with differential diagnosis.
PC 1	Lacks Demonstration of basic knowledge of various common and uncommon diseases. Fails to Perform basic history taking and physical examination appropriate for routine diagnosis. Fails to Interpret test results and screens for various pathological diseases	Demonstrates basic knowledge of various common and uncommon diseases. Performs basic history taking and physical examination appropriate for routine diagnosis. Interprets test results and screens for various pathological diseases
ICS 2	Fails to understand the importance of informed consent for FNAC, Bone marrow aspiration, etc. Inability to engage patients in shared decision making, and obtains informed consent for basic procedures like FNAC, Bone marrow aspiration, etc.	Understands the importance of informed consent for FNAC, Bone marrow aspiration, etc. Begins to engage patients in shared decision making, and obtains informed consent for basic procedures like FNAC, Bone marrow aspiration, etc.
P1	Lacks Consistently compassion, integrity, and respect in typical situations with patients, peers, and members of the health care team Lacks Consistently demonstrate sensitivity and responsiveness to the diagnostic services	Consistently shows compassion, integrity, and respect in typical situations with patients, peers, and members of the health care team Consistently demonstrates sensitivity and responsiveness to the diagnostic services

EPA 17 : Should be able to plan investigations in a clinical case	
1. Description of the activity: This included a brief rationale and a list of the functions required for the EPA.	Resident should be have the necessary knowledge to order a set of laboratory investigation for a clinical case
2. Most relevant domains of competence:	MK, PC, ICS1, SBP, PBLI, P
3. Competencies within each domain critical to entrustment decisions:	MK2.3, PC2.3, ICS2.3, SBP1.3 PBLI2.3, P1.3
4. Methods of assessment	Written exam (Every 6 months) Workplace assessment by Faculty Multisource feedback a. Health care workers b. Peers

Competency	Pre-Entrustable	Entrustable
MK 2	<p>Lacks Demonstration of ability to formulate a differential diagnosis of various pathological conditions.</p> <p>Fails to Demonstrate an understanding of disease process and morphological changes</p> <p>Inability to Demonstrate the ability to formulate comprehensive reporting format</p> <p>Lacks knowledge relevant to reporting of various fields like surgical Pathology, Cytology and hematology. In ability to Interpret tests appropriate to disease with differential diagnosis</p>	<p>Demonstrates the ability to formulate a differential diagnosis of various pathological conditions.</p> <p>Demonstrates an understanding of disease process and morphological changes</p> <p>Demonstrates the ability to formulate comprehensive reporting format</p> <p>Demonstrates knowledge relevant to reporting of various fields like surgical Pathology, Cytology and hematology. Demonstrates the ability to Interprets tests appropriate to disease with differential diagnosis.</p>
PC 1	<p>Lacks Demonstration of basic knowledge of various common and uncommon diseases.</p> <p>FailstoPerform basic history taking and physical examination appropriate for routine diagnosis. FailstoInterpret test results and screens for various pathological diseases</p>	<p>Demonstrates basic knowledge of various common and uncommon diseases. Performs basic history taking and physical examination appropriate for routine diagnosis. Interprets test results and screens for various pathological diseases</p>
ICS 2	<p>Fails to understand the importance of informed consent for FNAC, Bone marrow aspiration, etc.</p> <p>Inabilityto engage patients in shared decision making, and obtains informed consent for basic procedures like FNAC, Bone marrow aspiration, etc.</p>	<p>Understands the importance of informed consent for FNAC, Bone marrow aspiration, etc. Begins to engage patients in shared decision making, and obtains informed consent for basic procedures like FNAC, Bone marrow aspiration, etc.</p>
SBP 1	<p>Fails to Recognize limitations and failures of a team approach (e.g., hand-offs, miscommunication) in health care as the leading cause of preventable patient harm. Fails to participatein laboratory safety reporting and analyzing systems. Inability to demonstrate knowledge national laboratory safety standards, as well as their use/application in the institution.</p>	<p>Recognizes limitations and failures of a team approach (e.g., hand-offs, miscommunication) in health care as the leading cause of preventable patient harm. Participates in laboratory safety reporting and analyzing systems</p> <p>Participates in team drills Demonstrates knowledge national laboratory safety standards, as well as their use/application in the institution.</p>

PBLI2	<p>Does not Show commitment to self-evaluation, lifelong learning, and patient safety.</p> <p>Fails to Demonstrate understanding of the basic concepts of Quality Indicators</p> <p>Inability to Readappropriate information, as assigned by the program or related to reporting formats</p> <p>Fails toUnderstand level of evidence for patient care recommendations.</p> <p>Lacks References and utilizes national standards or guidelines in reporting of various subspeciality of Pathology.</p> <p>Identifies quality of care issues within one’s own practice with a systems- based approach</p>	<p>Shows commitment to self- evaluation, lifelong learning, and patient safety.</p> <p>Demonstrates understanding of the basic concepts of Quality Indicators</p> <p>Reads appropriate information, as assigned by the program or related to reporting formats</p> <p>Understands level of evidence for patient care recommendations.</p> <p>References and utilizes national standards or guidelines in reporting of various subspeciality of Pathology.</p> <p>Identifies quality of care issues within one’s own practice with a systems- based approach</p>
P1	<p>Lacks Consistently compassion, integrity, and respect in typical situations with patients, peers, and members of the health care team</p> <p>Lacks Consistentlytodemonstrate sensitivity and responsiveness to the diagnostic services</p>	<p>Consistently shows compassion, integrity, and respect in typical situations with patients, peers, and members of the health care team</p> <p>Consistently demonstrates sensitivity and responsiveness to the diagnostic services</p>

<b>EPA 18 : Should be able to perform and interpret Urine Examination</b>	
1. Description of the activity: This included a brief rationale and a list of the functions required for the EPA.	Resident should able to perform physical, chemical and microscopic examination of urine and interpret the results.
2. Most relevant domains of competence:	MK, PC, ICS1, P
3. Competencies within each domain critical to entrustment decisions:	MK2.3, PC1.3, ICS 2.3, P1.3
4.Methods of assessment	<p>Written exam (Every 6 months)</p> <p>Workplace assessment by Faculty</p> <p>Multisource feedback</p> <p>a.Health care workers,</p> <p>b.Peers</p>

<b>Competency</b>	<b>Pre-Entrustable</b>	<b>Entrustable</b>
MK 2	<p>Lacks Demonstration of ability to formulate a differential diagnosis of various pathological conditions.</p> <p>Fails to Demonstrate an understanding of disease process and morphological changes</p> <p>Inability to Demonstrate the ability to formulate comprehensive reporting format</p> <p>Lacks knowledge relevant to reporting of various fields like surgical Pathology, Cytology and hematology.</p> <p>In ability to Interpret tests appropriate to disease with differential diagnosis.</p>	<p>Demonstrates the ability to formulate a differential diagnosis of various pathological conditions.</p> <p>Demonstrates an understanding of disease process and morphological changes</p> <p>Demonstrates the ability to formulate comprehensive reporting format</p> <p>Demonstrates knowledge relevant to reporting of various fields like surgical Pathology, Cytology and hematology. Demonstrates the ability to Interpret tests appropriate to disease with differential diagnosis.</p>

PC 1	Lacks Demonstration of basic knowledge of various common and uncommon diseases. Fails to Perform basic history taking and physical examination appropriate for routine diagnosis. Fails to Interpret test results and screens for various pathological diseases	Demonstrates basic knowledge of various common and uncommon diseases. Performs basic history taking and physical examination appropriate for routine diagnosis. Interprets test results and screens for various pathological diseases
ICS 2	Fails to understand the importance of informed consent for FNAC, Bone marrow aspiration, etc. Inability to engage patients in shared decision making, and obtains informed consent for basic procedures like FNAC, Bone marrow aspiration, etc.	Understands the importance of informed consent for FNAC, Bone marrow aspiration, etc. Begins to engage patients in shared decision making, and obtains informed consent for basic procedures like FNAC, Bone marrow aspiration, etc.
P1	Lacks Consistently compassion, integrity, and respect in typical situations with patients, peers, and members of the health care team Lacks Consistently to demonstrate sensitivity and responsiveness to the diagnostic services	Consistently shows compassion, integrity, and respect in typical situations with patients, peers, and members of the health care team Consistently demonstrates sensitivity and responsiveness to the diagnostic services

EPA 19 :Should be able to perform and interpret CSF, Pleural Fluid, Peritoneal Fluid, Synovial fluid examination.	
1. Description of the activity: This included a brief rationale and a list of the functions required for the EPA.	Resident should be able to perform gross examination, cell counts on various body fluids like CSF, Pleural Fluid, Peritoneal Fluid, Synovial fluid examination.
2. Most relevant domains of competence:	MK, PC, ICS, P
3. Competencies within each domain critical to entrustment decisions:	MK2.3, PC1.3, ICS 2.3, P1.3
4. Methods of assessment	Written exam (Every 6 months) Workplace assessment by Faculty Multisource feedback a. Health care workers b. Peers

Competency	Pre-Entrustable	Entrustable
MK 2	<p>Lacks Demonstration of ability to formulate a differential diagnosis of various pathological conditions. Fails to Demonstrate an understanding of disease process and morphological changes</p> <p>Inability to Demonstrate the ability to formulate comprehensive reporting format</p> <p>Lacks knowledge relevant to reporting of various fields like surgical Pathology, Cytology and hematology.</p> <p>In ability to Interpret tests appropriate to disease with differential diagnosis.</p>	<p>Demonstrates the ability to formulate a differential diagnosis of various pathological conditions. Demonstrates an understanding of disease process and morphological changes</p> <p>Demonstrates the ability to formulate comprehensive reporting format</p> <p>Demonstrates knowledge relevant to reporting of various fields like surgical Pathology, Cytology and hematology. Demonstrates the ability to Interpret tests appropriate to disease with differential diagnosis</p>
PC 1	<p>Lacks Demonstration of basic knowledge of various common and uncommon diseases.</p> <p>FailstoPerform basic history taking and physical examination appropriate for routine diagnosis. Fail toInterpret test results and screens for various pathological diseases</p>	<p>Demonstrates basic knowledge of various common and uncommon diseases.</p> <p>Performs basic history taking and physical examination appropriate for routine diagnosis. Interprets test results and screens for various pathological diseases</p>
ICS 2	<p>Fail to understand the importance of informed consent for FNAC, Bone marrow aspiration , etc.</p> <p>Inabilityto engage patients in shared decision making, and obtains informed consent for basic procedures like FNAC, Bone marrow aspiration, etc.</p>	<p>Understands the importance of informed consent for FNAC, Bone marrow aspiration, etc. Begins to engage patients in shared decision making, and obtains informed consent for basic procedures like FNAC, Bone marrow aspiration, etc.</p>
P1	<p>Lacks Consistently compassion, integrity, and respect in typical situations with patients, peers, and members of the health care team</p> <p>Lacks Consistentlytodemonstrate sensitivity and responsiveness to the diagnostic services</p>	<p>Consistentlyshows compassion, integrity, and respect in typical situations with patients, peers, and members of the health care team</p> <p>Consistentlydemonstrates sensitivity and responsiveness to the diagnostic services</p>

EPA20:Shouldbeabletoperformandinterpretsemenanalysis.	
1. Description of the activity: This included a brief rationale and a list of the functions required for the EPA.	Resident should have the knowledge of interpretation of semen analysis. Resident should be able to perform the physical, chemical and microscopic examination of semen and interpret the results.
2. Most relevant domains of competence:	MK, PC, ICSI, PBLI, P
3. Competencies within each domain critical to entrustment decisions:	MK2.3, PC1.3, ICS 3.2, PBLI2.3 P1.3
4. Methods of assessment	Written exam (Every 6 months) Workplace assessment by Faculty Multisource feedback a. Health care workers, b. Peers

Competency	Pre-Entrustable	Entrustable
MK 2	Lacks Demonstration of ability to formulate a differential diagnosis of various pathological conditions. Fails to Demonstrate an understanding of disease process and morphological changes Inability to Demonstrate the ability to formulate comprehensive reporting format Lacks knowledge relevant to reporting of various fields like surgical Pathology, Cytology and hematology. In ability to Interpret tests appropriate to disease with differential diagnosis.	Demonstrates the ability to formulate a differential diagnosis of various pathological conditions. Demonstrates an understanding of disease process and morphological changes Demonstrates the ability to formulate comprehensive reporting format Demonstrates knowledge relevant to reporting of various fields like surgical Pathology, Cytology and hematology. Demonstrates the ability to Interpret tests appropriate to disease with differential diagnosis
PC 1	Lacks Demonstration of basic knowledge of various common and uncommon diseases. FailstoPerform basic history taking and physical examination appropriate for routine diagnosis. Fail toInterpret test results and screens for various pathological diseases	Demonstrates basic knowledge of various common and uncommon diseases. Performs basic history taking and physical examination appropriate for routine diagnosis. Interprets test results and screens for various pathological diseases
ICS 3	Fail to understandthe importance of informed consent for FNAC, Bone marrow aspiration , etc. Inabilityto engage patients in shared decision making, and obtains informed consent for basic procedures like FNAC, Bone marrow aspiration, etc.	Understands the importance of informed consent for FNAC, Bone marrow aspiration , etc. Begins to engage patients in shared decision making, and obtains informed consent for basic procedures like FNAC, Bone marrow aspiration, etc.

PBLI2	<p>Does not Show commitment to self-evaluation, lifelong learning, and patient safety.</p> <p>Fails to Demonstrate understanding of the basic concepts of Quality Indictaors</p> <p>Inability to Readappropriate information, as assigned by the program or related to reporting formats</p> <p>Fails toUnderstand level of evidence for patient care recommendations.</p> <p>Lacks References and utilizes national standards or guidelines in reporting of subspecialities of Pathology.</p> <p>Identifies quality of care issues within one’s own practice with a systems- based approach</p>	<p>Shows commitment to self- evaluation, lifelong learning, and patient safety.</p> <p>Demonstrates understanding of the basic concepts of Quality Indictaors</p> <p>Reads appropriate information, as assigned by the program or related to reporting formats</p> <p>Understands level of evidence for patient care recommendations.</p> <p>References and utilizes national standards or guidelines in reporting of subspecialities of Pathology.</p> <p>Identifies quality of care issues within one’s own practice with a systems- based approach</p>
P1	<p>Lacks Consistentlycompassion, integrity, and respect in typical situations with patients, peers, and members of the health care team</p> <p>Lacks Consistentlytodemonstrates sensitivity and responsiveness to the diagnostic services</p>	<p>Consistentlyshows compassion, integrity, and respect in typical situations with patients, peers, and members of the health care team</p> <p>Consistentlydemonstrates sensitivity and responsiveness to the diagnostic services</p>

EPA 21 : Should be able to perform urgent investigations like CSF, Platelet count during emergency duties.	
1. Description of the activity: This included a brief rationale and a list of the functions required for the EPA.	Residents should be able to perform CSF count platelet count and other significant findings during emergency duties.
2. Most relevant domains of competence:	PC,PBLI,P
3. Competencies within each domain critical to entrustment decisions:	PC2.3, PBLI 2.2, P 1.3
4.Methods of assessment	Written exam (Every 6 months) Workplace assessment by Faculty Multisource feedback a. Health care workers, b. Peers

Competency	Pre-Entrustable	Entrustable
PC 2	<p>Inability to Perform basic procedures, including Peripheral smear preparation and Pap smear.</p> <p>Fails to Demonstrate basic technical procedures including use of universal precautions and aseptic technique</p> <p>Lack of Orientation of resident to various procedures in reporting from sample reception to report despatch</p> <p>Does not Assist in grossing station, FNAC, bone marrow aspiration etc</p> <p>Fails to Perform Processing and staining, peripheral smear examination and assist in reporting.</p> <p>FailstoPerform grossing, FNAC and bone marrow aspiration.</p> <p>Does not Work effectively as a assistant in routine reporting in various sub- speciality of pathology</p>	<p>Performs basic procedures, including Peripheral smear preparation and Pap smear.</p> <p>Demonstrates basic technical procedures including use of universal precautions and aseptic technique</p> <p>Orientation of resident to various procedures in reporting from sample reception to report despatch Assist- sin grossing station, FNAC, bone marrow aspiration etc Perform- sProcessing and staining, peripheral smear examination and assist in reporting</p> <p>Performs grossing, FNAC and bone marrow aspiration. Works effectively as a assistant in routine reporting in various sub- speciality of pathology</p>
PBLI2	<p>Does not Show commitment to self- evaluation, lifelong learning, and patient safety.</p> <p>Fails to Demonstrate understanding of the basic concepts of Quality Indicators</p> <p>Inability to Read appropriate information, as assigned by the program or related to reporting formats FailstoUnderstand level of evidence for patient care recommendations.</p> <p>Lacks References and utilizes national standards or guidelines in reporting of various subspecial- ity of Pathology.</p> <p>Does not Identify quality of care issues within one's own practice with a systems- based approach</p>	<p>Shows commitment to self- evaluation, lifelong learning, and patient safety. Demonstrates understanding of the basic concepts of Quality Indicators</p> <p>Reads appropriate information, as assigned by the program or related to reporting formats Under- stands level of evidence for patient care recommendations. References and utilizes national standards or guidelines in reporting of various subspeci ality of Pathology. Identifies quality of care issues within one's own practice with a systems- based approach</p>
P1	<p>Lacks Consistently compassion, integrity, and respect in typical situations with patients, peers, and members of the health care team</p> <p>Lacks Consistently to demonstrate sensitivity and responsiveness to the diagnostic services</p>	<p>Consistently shows compassion, integrity, and respect in typical situations with patients, peers, and members of the health care team</p> <p>Consistently demonstrates sensitivity and responsiveness to the diagnostic services</p>

EPA 22 : Should demonstrate familiarity with in laboratory investigations in Microbiology and Biochemistry	
1. Description of the activity: This included a brief rationale and a list of the functions required for the EPA.	Resident should be acquiring knowledge about laboratory investigation in Microbiology and Biochemistry.
2. Most relevant domains of competence:	MK, PC, ICS1, P
3. Competencies within each domain critical to entrustment decisions:	MK2.3, PC1.3, ICS 2.3, P1.3
4. Methods of assessment	Written exam (Every 6 months) Workplace assessment by Faculty Multisource feedback a. Health care workers, b. Peers

Competency	Pre-Entrustable	Entrustable
MK 2	Lacks Demonstration of ability to formulate a differential diagnosis of various pathological conditions. Fails to Demonstrate an understanding of disease process and morphological changes Inability to Demonstrate the ability to formulate comprehensive reporting format Lacks knowledge relevant to reporting of various fields like surgical Pathology, Cytology and hematology. In ability to Interpret tests appropriate to disease with differential diagnosis.	Demonstrates the ability to formulate a differential diagnosis of various pathological conditions. Demonstrates an understanding of disease process and morphological changes Demonstrates the ability to formulate comprehensive reporting format Demonstrates knowledge relevant to reporting of various fields like surgical Pathology, Cytology and hematology. Demonstrates the ability to Interpret tests appropriate to disease with differential diagnosis.
PC 1	Lacks Demonstration of basic knowledge of various common and uncommon diseases. Fails to Perform basic history taking and physical examination appropriate for routine diagnosis. Fails to Interpret test results and screens for various pathological diseases	Demonstrates basic knowledge of various common and uncommon diseases. Performs basic history taking and physical examination appropriate for routine diagnosis. Interprets test results and screens for various pathological diseases
ICS 2	Fail to understand the importance of informed consent for FNAC, Bone marrow aspiration, etc. Inability to engage patients in shared decision making, and obtains informed consent for basic procedures like FNAC, Bone marrow aspiration, etc.	Understands the importance of informed consent for FNAC, Bone marrow aspiration, etc. Begins to engage patients in shared decision making, and obtains informed consent for basic procedures like FNAC, Bone marrow aspiration, etc.
P1	Lacks Consistently compassion, integrity, and respect in typical situations with patients, peers, and members of the health care team Lacks Consistently demonstrates sensitivity and responsiveness to the diagnostic services	Consistently shows compassion, integrity, and respect in typical situations with patients, peers, and members of the health care team Consistently demonstrates sensitivity and responsiveness to the diagnostic services

EPA 23 : Should be able to plan and execute internal quality control programme for laboratory	
1. Description of the activity: This included a brief rationale and a list of the functions required for the EPA.	Resident should be able to acquire knowledge about quality parameter and quality indicators of the laboratory. Able to run and check the internal quality control on daily basis.
2. Most relevant domains of competence:	MK, PC, SBP
3. Competencies within each domain critical to entrustment decisions:	MK4.2, PC4.3, SBP1.3
4. Methods of assessment	Written exam (Every 6 months) Workplace assessment by Faculty Multisource feedback a. Health care workers b. Peers

Competency	Pre-Entrustable	Entrustable
MK 4.3	Lacks Demonstration in knowledge of fixation, tissue processing, stains and cytotechniques and haematological test. Fails to recommend special stain, IHC and special tests in various subspeciality of Pathology. Does not suggest the necessary action for improving the quality in laboratory.	Demonstrates knowledge of fixation, tissue processing, stains and cytotechniques and haematological test. Recommends special stain, IHC and special tests in various subspeciality of Pathology. Suggests the necessary action for improving the quality in laboratory.
PC 4.3	Lacks Demonstration of knowledge of the characteristics of a good screening test. Inability to Demonstrate knowledge of indication, benefit and limitations of commonly used screening. Fails to Apply innovative approaches for preventive and promotive health care. Does Not Effectively work to maintain the quality control of the laboratory.	Demonstrates knowledge of the characteristics of a good screening test. Demonstrates knowledge of indication, benefit and limitations of commonly used screening. Applies innovative approaches for preventive and promotive health care. Effectively works to maintain the quality control of the laboratory.
SBP 1	Fails to Recognize limitations and failures of a team approach (e.g., hand-offs, miscommunication) in health care as the leading cause of preventable patient harm. Fails to participate in laboratory safety reporting and analyzing systems. Inability to demonstrate knowledge national laboratory safety standards, as well as their use/application in the institution.	Recognizes limitations and failures of a team approach (e.g., hand-offs, miscommunication) in health care as the leading cause of preventable patient harm. Participates in laboratory safety reporting and analyzing systems Participates in team drills Demonstrates knowledge national laboratory safety standards, as well as their use/application in the institution.

EPA 24 : Should be able to participate in external quality control programme	
1. Description of the activity: This included a brief rationale and a list of the functions required for the EPA.	Resident should possess knowledge about various external quality control programme. Resident should be able to assist in external quality control programme
2. Most relevant domains of competence:	MK, PC, SBP
3. Competencies within each domain critical to entrustment decisions:	MK4.2 PC4.3 SBP1.3
4. Methods of assessment	Written exam (Every 6 months) Workplace assessment by Faculty Multisource feedback a. Health care workers, b. Peers

Competency	Pre-Entrustable	Entrustable
MK 4.3	Lacks Demonstration in knowledge of fixation, tissue processing, stains and cytotechniques and haematological test. Fails to recommend special stain, IHC and special tests in various subspeciality of Pathology. Does not suggest the necessary action for improving the quality in laboratory.	Demonstrates knowledge of fixation, tissue processing, stains and cytotechniques and haematological test. Recommends special stain, IHC and special tests in various subspeciality of Pathology. Suggests the necessary action for improving the quality in laboratory.
PC 4.3	Lacks Demonstration of knowledge of the characteristics of a good screening test. Inability to Demonstrate knowledge of indication, benefit and limitations of commonly used screening. Fails to Apply innovative approaches for preventive and promotive health care. Does Not Effectively work to maintain the quality control of the laboratory.	Demonstrates knowledge of the characteristics of a good screening test. Demonstrates knowledge of indication, benefit and limitations of commonly used screening. Applies innovative approaches for preventive and promotive health care. Effectively works to maintain the quality control of the laboratory.
SBP 1	Fails to Recognize limitations and failures of a team approach (e.g., hand-offs, miscommunication) in health care as the leading cause of preventable patient harm. Fails to participate in laboratory safety reporting and analyzing systems. Inability to demonstrate knowledge national laboratory safety standards, as well as their use/application in the institution.	Recognizes limitations and failures of a team approach (e.g., hand-offs, miscommunication) in health care as the leading cause of preventable patient harm. Participates in laboratory safety reporting and analyzing systems Participates in team drills Demonstrates knowledge national laboratory safety standards, as well as their use/application in the institution.

EPA 25 :Should be able to perform blood grouping and Rh typing	
1. Description of the activity: This included a brief rationale and a list of the functions required for the EPA.	Resident should be able to perform and interpret blood grouping. Resident should be able to sort out difficulty in blood grouping especially rare groups and weak antibody reaction, etc
2. Most relevant domains of competence:	MK, PC, ICS, PBLI, P
3. Competencies within each domain critical to entrustment decisions:	MK1.3., PC 1.3, ICS 1.2, PBLI 2.3 P1.2
4. Methods of assessment	Written exam (Every 6 months) Workplace assessment by Faculty Multisource feedback a. Health care workers, b. Peers

Competency	Pre-Entrustable	Entrustable
MK 1	<p>Fails to demonstrate a knowledge of normal anatomy, histology and functions of various organs</p> <p>Fails to Explain pathogenesis and morphology of various organ system</p> <p>Fails to Demonstrate the ability to identify the gross morphological changes in organs</p> <p>Inability to Demonstrate knowledge about the various microscopic changes in various disease</p>	<p>Demonstrates a knowledge of normal anatomy, histology and functions of various organs</p> <p>Explains pathogenesis and morphology of various organ system</p> <p>Demonstrates the ability to identify the gross morphological changes in organs</p> <p>Demonstrates knowledge about the various microscopic changes in various disease</p>
PC 1	<p>Inability to Perform basic procedures, including Peripheral smear preparation and Pap smear.</p> <p>Fails to Demonstrate basic technical procedures including use of universal precautions and aseptic technique</p> <p>Lack of Orientation of resident to various procedures in reporting from sample reception to report despatch</p> <p>Does not Assist in grossing station, FNAC, bone marrow aspiration etc</p> <p>Fails to Perform Processing and staining, peripheral smear examination and assist in reporting.</p> <p>Fails to Perform grossing, FNAC and bone marrow aspiration.</p> <p>Does not Work effectively as an assistant in routine reporting in various sub-speciality of pathology</p>	<p>Performs basic procedures, including Peripheral smear preparation and Pap smear.</p> <p>Demonstrates basic technical procedures including use of universal precautions and aseptic technique</p> <p>Orientation of resident to various procedures in reporting from sample reception to report despatch</p> <p>Assists in grossing station, FNAC, bone marrow aspiration etc</p> <p>Performs Processing and staining, peripheral smear examination and assist in reporting</p> <p>Performs grossing, FNAC and bone marrow aspiration. Works effectively as an assistant in routine reporting in various sub-speciality of pathology</p>

ICS 1	<p>Inability to Demonstrate adequate listening skills.</p> <p>Fails to Communicate effectively in routine clinical situations</p> <p>Does not Verbalize basic knowledge about common reports.</p> <p>Fails to Understand the importance of informed consent.</p> <p>Does not Enquire for patient and family understanding of illness and</p> <p>DoesnotMaintain communication with patient and family regarding the pathology report.</p> <p>Does not Communicate effectively in stressful, emergent, and complex</p>	<p>Demonstrates adequate listening skills. Communicates effectively in routine clinical situations</p> <p>Verbalizes basic knowledge about common reports, Understands the importance of informed consent,Enquiresfor patient and family understanding of illness and</p> <p>Allows opportunities for patient questions , Maintains communication with patient and family regarding the pathology report.</p> <p>Communicates effectively in stressful, emergent, and complex</p>
PBLI 2	<p>Does not Show commitment to self-evaluation, lifelong learning, and patient safety.</p> <p>Fails to Demonstrate understanding of the basic concepts of Quality Indictaors</p> <p>Inability to Readappropriate information, as assigned by the program or related to reporting formatsFailstoUnderstand level of evidence for patient care recommendations.</p> <p>Lacks References and utilizes national standards or guidelines in reporting of subspecialities of Pathology.</p> <p>Fails to Identify quality of care issues within one’s own practice with a systems- based approach</p>	<p>Shows commitment to self- evaluation, lifelong learning, and patient safety.</p> <p>Demonstrates understanding of the basic concepts of Quality Indictaors</p> <p>Reads appropriate information, as assigned by the program or related to reporting formatsUnderstands level of evidence for patient care recommendations.</p> <p>References and utilizes national standards or guidelines in reporting of subspecialities of Pathology.</p> <p>Identifies quality of care issues within one’s own practice with a systems- based approach</p>
P 1	<p>Lacks Consistentlycompassion, integrity, and respect in typical situations with patients, peers, and members of the health care team</p> <p>Lacks Consistentlytodemonstrate sensitivity and responsiveness to the diagnostic services</p>	<p>Consistentlyshows compassion, integrity, and respect in typical situations with patients, peers, and members of the health care team</p> <p>Consistentlydemonstrates sensitivity and responsiveness to the diagnostic services</p>

EPA 25 :Should be able to perform blood grouping and Rh typing	
1. Description of the activity: This included a brief rationale and a list of the functions required for the EPA.	Resident should be able to perform and interpret blood grouping. Resident should be able to sort out difficulty in blood grouping especially rare groups and weak antibody reaction , etc
2. Most relevant domains of competence:	MK, PC, ICS, PBLI, P
3. Competencies within each domain critical to entrustment decisions:	MK1.3., PC 1.3, ICS 1.2, PBLI 2.3 P1.2
4. Methods of assessment	Written exam (Every 6 months) Workplace assessment by Faculty Multisource feedback a. Health care workers, b. Peers

Competency	Pre-Entrustable	Entrustable
MK 1	<p>Fails to demonstrate a knowledge of normal anatomy, histology and functions of various organs</p> <p>Fails to Explain pathogenesis and morphology of various organ system</p> <p>Fails to Demonstrate the ability to identifies the gross morphological changes in organs</p> <p>Inability to Demonstrate knowledge about the various microscopic changes in various disease</p>	<p>Demonstrates a knowledge of normal anatomy, histology and functions of various organs</p> <p>Explains pathogenesis and morphology of various organ system</p> <p>Demonstrates the ability to identifies the gross morphological changes in organs</p> <p>Demonstrates knowledge about the various microscopic changes in various disease</p>
PC 1	<p>Inability to Perform basic procedures, including Peripheral smear preparation and Pap smear.</p> <p>Fails to Demonstrate basic technical procedures including use of universal precautions and aseptic technique</p> <p>Lack of Orientation of resident to various procedures in reporting from sample reception to report despatch</p> <p>Does not Assist in grossing station, FNAC, bone marrow aspiration etc</p> <p>Fails to Performs Processing and staining, peripheral smear examination and assist in reporting.</p> <p>FailstoPerformgrossing, FNAC and bone marrow aspiration.</p> <p>Does not Work effectively as a assistant in routine reporting in various sub- speciality of pathology</p>	<p>Performs basic procedures, including Peripheral smear preparation and Pap smear.</p> <p>Demonstrates basic technical procedures including use of universal precautions and aseptic technique</p> <p>Orientation of resident to various procedures in reporting from sample reception to report despatch</p> <p>Assists in grossing station, FNAC, bone marrow aspiration etc</p> <p>Performs Processing and staining, peripheral smear examination and assist in reporting</p> <p>Performs grossing, FNAC and bone marrow aspiration. Works effectively as a assistant in routine reporting in various sub- speciality of pathology</p>

EPA 26 : Should be able to perform cross-matching	
1. Description of the activity: This included a brief rationale and a list of the functions required for the EPA.	Resident should be able to Perform and interpret cross matching. Able to trouble shoot in cross matching.
2. Most relevant domains of competence:	MK, PC, ICS, PBLI, P
3. Competencies within each domain critical to entrustment decisions:	MK1.3. PC 1.3, ICS 1.2, PBLI 2.3 P1.2
4. Methods of assessment	Written exam (Every 6 months) Workplace assessment by Faculty Multisource feedback a. Health care workers b. Peers

Competency	Pre-Entrustable	Entrustable
MK 1	<p>Fails to demonstrate a knowledge of normal anatomy, histology and functions of various organs</p> <p>Fails to Explain pathogenesis and morphology of various organ system</p> <p>Fails to Demonstrate the ability to identifies the gross morphological changes in organs</p> <p>Inability to Demonstrate knowledge about the various microscopic changes in various diseases</p>	<p>Demonstrates a knowledge of normal anatomy, histology and functions of various organs</p> <p>Explains pathogenesis and morphology of various organ system</p> <p>Demonstrates the ability to identifies the gross morphological changes in organs</p> <p>Demonstrates knowledge about the various microscopic changes in various disease</p>
PC 1	<p>Inability to Performs basic procedures, including Peripheral smear preparation and Pap smear.</p> <p>Fails to Demonstrate basic technical procedures including use of universal precautions and aseptic technique</p> <p>Lack of Orientation of resident to various procedures in reporting from sample reception to report despatch</p> <p>Does not Assist in grossing station, FNAC, bone marrow aspiration etc</p> <p>Fails to Perform Processing and staining, peripheral smear examination and assist in reporting.</p> <p>Fails to Perform grossing, FNAC and bone marrow aspiration.</p> <p>Does not Work effectively as a assistant in routine reporting in sub-subspecialities of pathology</p>	<p>Performs basic procedures, including Peripheral smear preparation and Pap smear.</p> <p>Demonstrates basic technical procedures including use of universal precautions and aseptic technique</p> <p>Orientation of resident to various procedures in reporting from sample reception to report despatch</p> <p>Assists in grossing station, FNAC, bone marrow aspiration etc</p> <p>Performs Processing and staining, peripheral smear examination and assist in reporting</p> <p>Performs grossing, FNAC and bone marrow aspiration.</p> <p>Works effectively as a assistant in routine reporting in sub-subspecialities of pathology</p>

ICS 1	<p>Inability to Demonstrate adequate listening skills.  Fails to Communicate effectively in routine clinical situations  Does not Verbalize basic knowledge about common reports.  Fails to Understand the importance of informed consent.  Fails to Enquire for patient and family understanding of illness and  Does not Maintain communication with patient and family regarding the pathology report.  Does not Communicate effectively in stressful, emergent, and complex</p>	<p>Demonstrates adequate listening skills. Communicates effectively in routine clinical situations  Verbalizes basic knowledge about common reports,  Understands the importance of informed consent ,  Enquires for patient and family understanding of illness and Allows opportunities for patient questions  Maintains communication with patient and family regarding the pathology report.  Communicates effectively in stressful, emergent, and complex</p>
PBLI 2	<p>Does not Show commitment to self-evaluation, lifelong learning, and patient safety.  Fails to Demonstrate understanding of the basic concepts of Quality Indicators  Inability to Read appropriate information, as assigned by the program or related to reporting formats  Fail to Understand level of evidence for patient care recommendations.  Lacks References and utilizes national standards or guidelines in reporting of subspecialties of Pathology.  Fails to Identify quality of care issues within one's own practice with a systems-based approach</p>	<p>Shows commitment to self-evaluation, lifelong learning, and patient safety.  Demonstrates understanding of the basic concepts of Quality Indicators  Reads appropriate information, as assigned by the program or related to reporting formats  Understands level of evidence for patient care recommendations.  References and utilizes national standards or guidelines in reporting of subspecialties of Pathology.  Identifies quality of care issues within one's own practice with a systems-based approach</p>
P 1	<p>Lacks Consistently compassion, integrity, and respect in typical situations with patients, peers, and members of the health care team  Lacks Consistently to demonstrate sensitivity and responsiveness to the diagnostic services</p>	<p>Consistently shows compassion, integrity, and respect in typical situations with patients, peers, and members of the health care team  Consistently demonstrates sensitivity and responsiveness to the diagnostic services</p>

EPA 27 : Should be able to perform ELISA for infectious disease, Coomb's test	
1. Description of the activity: This included a brief rationale and a list of the functions required for the EPA.	Resident should be able to perform ELISA method for various Transfusion Transmitted Infection like HIV, Hepatitis, Syphilis, etc. Resident should be able to perform and interpret both direct and Indirect Coombs test. Possess knowledge about the diagnosis and clinical significance of Coombs test.
2. Most relevant domains of competence:	MK, PC, ICS, PBLI, P
3. Competencies within each domain critical to entrustment decisions:	MK1.3. PC 1.3 ICS 1.2 PBLI 2.3 P1.2
4. Methods of assessment	Written exam (Every 6 months) Workplace assessment by Faculty Multisource feedback a. Health care workers, b. Peers

Competency	Pre-Entrustable	Entrustable
MK 1	<p>Fails to demonstrate a knowledge of normal anatomy, histology and functions of various organs</p> <p>Fails to Explain pathogenesis and morphology of various organ system</p> <p>Fails to Demonstrate the ability to identifies the gross morphological changes in organs</p> <p>Inability to Demonstrate knowledge about the various microscopic changes in various disease</p>	<p>Demonstrates a knowledge of normal anatomy, histology and functions of various organs</p> <p>Explains pathogenesis and morphology of various organ system</p> <p>Demonstrates the ability to identifies the gross morphological changes in organs</p> <p>Demonstrates knowledge about the various microscopic changes in various disease</p>
PC 1	<p>Inability to Perform basic procedures, including Peripheral smear preparation and Pap smear.</p> <p>Fails to Demonstrate basic technical procedures including use of universal precautions and aseptic technique</p> <p>Lack of Orientation of resident to various procedures in reporting from sample reception to report despatch</p> <p>Does not Assist in grossing station, FNAC, bone marrow aspiration etc</p> <p>Fails to Perform Processing and</p>	<p>Performs basic procedures, including Peripheral smear preparation and Pap smear.</p> <p>Demonstrates basic technical procedures including use of universal precautions and aseptic technique</p> <p>Orientation of resident to various procedures in reporting from sample reception to report despatch</p> <p>Assists in grossing station, FNAC, bone marrow aspiration etc</p> <p>Performs Processing and</p>
	<p>staining, peripheral smear examination and assist in reporting.</p> <p>Fails to Perform grossing, FNAC and bone marrow aspiration.</p> <p>Does not Work effectively as a assistant in routine reporting in various sub- speciality of pathology</p>	<p>staining, peripheral smear examination and assist in reporting</p> <p>Performs grossing, FNAC and bone marrow aspiration.</p> <p>Works effectively as a assistant in routine reporting in various sub- speciality of pathology</p>

ICS 1	<p>Inability to Demonstrate adequate listening skills.</p> <p>Fails to Communicate effectively in routine clinical situations</p> <p>Does not Verbalize basic knowledge about common reports.</p> <p>Fails to Understand the importance of informed consent.</p> <p>Fails to Enquire for patient and family understanding of illness and</p> <p>DoesnotMaintain communication with patient and family regarding the pathology report.</p> <p>Does not Communicate effectively in stressful, emergent, and complex</p>	<p>Demonstrates adequate listening skills. Communicates effectively in routine clinical situations</p> <p>Verbalizes basic knowledge about common reports,</p> <p>Understands the importance of informed consent</p> <p>Enquiresfor patient and family understanding of illness and</p> <p>Allows opportunities for patient questions Maintains communication with patient and family regarding the pathology report.</p> <p>Communicates effectively in stressful, emergent, and complex</p>
PBLI 2	<p>Does not Show commitment to self-evaluation, lifelong learning, and patient safety.</p> <p>Fails to Demonstrate understanding of the basic concepts of Quality Indicators</p> <p>Inability to Readappropriate information, as assigned by the program or related to reporting formatsFailstoUnderstand level of evidence for patient care recommendations.</p> <p>Lacks References and utilizes national standards or guidelines in reporting of various subspeciality of Pathology.</p> <p>Fails to Identify quality of care issues within one’s own practice with a systems- based approach</p>	<p>Shows commitment to self- evaluation, lifelong learning, and patient safety.</p> <p>Demonstrates understanding of the basic concepts of Quality Indicators</p> <p>Reads appropriate information, as assigned by the program or related to reporting formats</p> <p>Understands level of evidence for patient care recommendations.</p> <p>References and utilizes national standards or guidelines in reporting of various subspeciality of Pathology.</p> <p>Identifies quality of care issues within one’s own practice with a systems- based approach</p>
P 1	<p>Lacks Consistently compassion, integrity, and respect in typical situations with patients, peers, and members of the health care team</p> <p>Lacks Consistentlytodemonstrate sensitivity and responsiveness to the diagnostic services</p>	<p>Consistentlyshows compassion, integrity, and respect in typical situations with patients, peers, and members of the health care team</p> <p>Consistentlydemonstrates sensitivity and responsiveness to the diagnostic services</p>

EPA 28 : Should be able to separate blood components and have knowledge of indications of using blood components	
1. Description of the activity: This included a brief rationale and a list of the functions required for the EPA.	Resident should be able to separate blood components and have knowledge of indications of using blood components.
2. Most relevant domains of competence:	PC, ICS, PBLI, P
3. Competencies within each domain critical to entrustment decisions:	PC 1.3 ICS 1.2 PBLI 2.3 P1.2
4. Methods of assessment	Written exam (Every 6 months) Workplace assessment by Faculty Multisource feedback a. Health care workers, b. Peers

Competency	Pre-Entrustable	Entrustable
PC 1	<p>Inability to Perform basic procedures, including Peripheral smear preparation and Pap smear.</p> <p>Fails to Demonstrate basic technical procedures including use of universal precautions and aseptic technique</p> <p>Lack of Orientation of resident to various procedures in reporting from sample reception to report despatch</p> <p>Does not Assist in grossing station, FNAC, bone marrow aspiration etc</p> <p>Fails to Perform Processing and staining, peripheral smear examination and assist in reporting.</p> <p>Fails to Perform grossing, FNAC and bone marrow aspiration.</p> <p>Does not Work effectively as an assistant in routine reporting in various sub- speciality of pathology</p>	<p>Performs basic procedures, including Peripheral smear preparation and Pap smear.</p> <p>Demonstrates basic technical procedures including use of universal precautions and aseptic technique</p> <p>Orientation of resident to various procedures in reporting from sample reception to report despatch</p> <p>Assists in grossing station, FNAC, bone marrow aspiration etc</p> <p>Performs Processing and staining, peripheral smear examination and assist in reporting</p> <p>Performs grossing, FNAC and bone marrow aspiration.</p> <p>Works effectively as an assistant in routine reporting in various sub- speciality of pathology</p>
ICS 1	<p>Inability to Demonstrate adequate listening skills.</p> <p>Fails to Communicate effectively in routine clinical situations</p> <p>Does not Verbalize basic knowledge about common reports.</p> <p>Fails to Understand the importance of informed consent.</p> <p>Does not Enquire for patient and family understanding of illness and</p> <p>Does not Maintain communication with patient and family regarding the pathology report.</p> <p>Does not Communicate effectively in stressful, emergent, and complex</p>	<p>Demonstrates adequate listening skills. Communicates effectively in routine clinical situations</p> <p>Verbalizes basic knowledge about common reports, Understands the importance of informed consent ,</p> <p>Enquires for patient and family understanding of illness and</p> <p>Allows opportunities for patient questions, Maintains communication with patient and family regarding the pathology report.</p> <p>Communicates effectively in stressful, emergent, and complex</p>

PBLI 2	<p>Does not Show commitment to self-evaluation, lifelong learning, and patient safety.</p> <p>Fails to Demonstrate understanding of the basic concepts of Quality Indicators</p> <p>Inability to Read appropriate information, as assigned by the program or related to reporting formats</p> <p>FailstoUnderstand level of evidence for patient care recommendations.</p> <p>Lacks References and utilizes national standards or guidelines in reporting of subspecialties of Pathology.</p> <p>Fails to Identify quality of care issues within one’s own practice with a systems- based approach</p>	<p>Shows commitment to self- evaluation, lifelong learning, and patient safety.</p> <p>Demonstrates understanding of the basic concepts of Quality Indicators</p> <p>Reads appropriate information, as assigned by the program or related to reporting formats</p> <p>Understands level of evidence for patient care recommendations.</p> <p>References and utilizes national standards or guidelines in reporting of subspecialties of Pathology.</p> <p>Identifies quality of care issues within one’s own practice with a systems- based approach</p>
P 1	<p>Lacks Consistently compassion, integrity, and respect in typical situations with patients, peers, and members of the health care team</p> <p>Lacks Consistentlytodemonstrate sensitivity and responsiveness to the diagnostic services</p>	<p>Consistentlyshows compassion, integrity, and respect in typical situations with patients, peers, and members of the health care team</p> <p>Consistentlydemonstrates sensitivity and responsiveness to the diagnostic services</p>

EPA 29 : Should have knowledge of criteria of selection of blood donors	
1. Description of the activity: This included a brief rationale and a list of the functions required for the EPA.	Resident should be able to acquire knowledge about criteria for selecting the various blood donors. Possess knowledge about various types, inclusion and exclusion criteria of blood donors.
2. Most relevant domains of competence:	PC, ICS, PBLI, P
3. Competencies within each domain critical to entrustment decisions:	PC 1.3, ICS 1.2, PBLI 2.3, P1.2
4. Methods of assessment	<p>Written exam (Every 6 months)</p> <p>Workplace assessment by Faculty</p> <p>Multisource feedback</p> <p>a. Health care workers, b. Peers</p>

Competency	Pre-Entrustable	Entrustable
PC 1	<p>Inability to Perform basic procedures, including Peripheral smear preparation and Pap smear.</p> <p>Fails to Demonstrate basic technical procedures including use of universal precautions and aseptic technique</p> <p>Lack of Orientation of resident to various procedures in reporting from sample reception to report despatch</p> <p>Does not Assist in grossing station, FNAC, bone marrow aspiration etc</p> <p>Fails to Performs Processing and staining, peripheral smear examination and assist in reporting. Fails to Perform grossing, FNAC and bone marrow aspiration.</p> <p>Does not Work effectively as an assistant in routine reporting in various sub-speciality of patholog</p>	<p>Performs basic procedures, including Peripheral smear preparation and Pap smear.</p> <p>Demonstrates basic technical procedures including use of universal precautions and aseptic technique</p> <p>Orientation of resident to various procedures in reporting from sample reception to report despatch</p> <p>Assists in grossing station, FNAC, bone marrow aspiration etc</p> <p>Performs Processing and staining, peripheral smear examination and assist in reporting- Performs grossing, FNAC and bone marrow aspiration.</p> <p>Works effectively as an assistant in routine reporting in various sub-speciality of pathology</p>
ICS 1	<p>Inability to Demonstrate adequate listening skills. Fails to Communicate effectively in routine clinical situations</p> <p>Do not Verbalizes basic knowledge about common reports.</p> <p>Fails to Understand the importance of informed consent.</p> <p>Fails to Enquire for patient and family understanding of illness and Does not Maintain communication with patient and family regarding the pathology report.</p> <p>Does not Communicate effectively in stressful, emergent, and complex</p>	<p>Demonstrates adequate listening skills. Communicates effectively in routine clinical situations</p> <p>Verbalizes basic knowledge about common reports,</p> <p>Understands the importance of informed consent</p> <p>Enquires for patient and family understanding of illness and</p> <p>Allows opportunities for patient questions, Maintains communication with patient and family regarding the pathology report.</p> <p>Communicates effectively in stressful, emergent, and complex</p>
PBLI 2	<p>Does not Show commitment to self-evaluation, lifelong learning, and patient safety.</p> <p>Fails to Demonstrate understanding of the basic concepts of Quality</p>	<p>Shows commitment to self-evaluation, lifelong learning, and patient safety.</p> <p>Demonstrates understanding of the basic concepts of Quality Indicators</p> <p>Reads appropriate information, as</p>

	<p>Indicators</p> <p>Inability to Readappropriate information, as assigned by the program or related to reporting formats</p> <p>Fails toUnderstand level of evidence for patient care recommendations.</p> <p>Lacks References and utilizes national standards or guidelines in reporting of subspecialties of Pathology.</p> <p>Fails to Identify quality of care issues within one’s own practice with a systems- based approach</p>	<p>assigned by the program or related to reporting formats</p> <p>Understands level of evidence for patient care recommendations.</p> <p>References and utilizes national standards or guidelines in reporting of subspecialties of Pathology.</p> <p>Identifies quality of care issues within one’s own practice with a systems-based approach</p>
P 1	<p>Lacks Consistently compassion, integrity, and respect in typical situations with patients, peers, and members of the health care team</p> <p>Lacks Consistentlytodemonstrate sensitivity and responsiveness to the diagnostic services</p>	<p>Consistentlyshows compassion, integrity, and respect in typical situations with patients, peers, and members of the health care team</p> <p>Consistentlydemonstrates sensitivity and responsiveness to the diagnostic services</p>

**EPA 30 :Should be able to manage adverse donor reactions**

1. Description of the activity: This included a brief rationale and a list of the functions required for the EPA.	Resident should be able to possess knowledge about various immediate and late donor reactions. Also should be able to manage various adverse donor reactions.
2. Most relevant domains of competence:	PC, ICS, PBLI, P
3. Competencies within each domain critical to entrustment decisions:	PC 1.3, ICS 1.2, PBLI 2.3, P1.2
4.Methods of assessment	Written exam (Every 6 months) Workplace assessment by Faculty Multisource feedback a. Health care workers, b. Peers

<b>Competency</b>	<b>Pre-Entrustable</b>	<b>Entrustable</b>
PC 1	<p>Inability to Perform basic procedures, including Peripheral smear preparation and Pap smear.</p> <p>Fails to Demonstrates basic technical procedures including use of universal precautions and aseptic technique</p> <p>Lack of Orientation of resident to various procedures in reporting from sample reception to report despatch</p> <p>Does not Assist in grossing station, FNAC, bone marrow aspiration etc</p> <p>Fails to PerformProcessing and staining,peripheral smear examination and assist in reporting. Fail to Perform grossing, FNAC and bone marrow aspiration.</p> <p>Do not Works effectively as a assistant in routine reporting in various sub- speciality of pathology</p>	<p>Performs basic procedures, including Peripheral smear preparation and Pap smear.</p> <p>Demonstrates basic technical procedures including use of universal precautions and aseptic technique</p> <p>Orientation of resident to various procedures in reporting from sample reception to report despatch</p> <p>Assistsin grossing station, FNAC, bone marrow aspiration etc</p> <p>PerformsProcessing and staining,peripheral smear examination and assist in reportingPerformsgrossing, FNAC and bone marrow aspiration.</p> <p>Works effectively as a assistant in routine reporting in various sub- speciality of pathology</p>

ICS 1	<p>Inability to Demonstrate adequate listening skills.</p> <p>Fails to Communicate effectively in routine clinical situations</p> <p>Does not Verbalizebasic knowledge about common reports.</p> <p>Fails to Understand the importance of informed consent.</p> <p>Fails to Enquire for patient and family understanding of illness and DoesnotMaintain communication with patient and family regarding the pathology report.</p> <p>Does not Communicate effectively in stressful, emergent, and complex</p>	<p>Demonstrates adequate listening skills. Communicates effectively in routine clinical situations</p> <p>Verbalizes basic knowledge about common reports,</p> <p>Understands the importance of informed consent</p> <p>Enquiresfor patient and family understanding of illness and</p> <p>Allowsopportunities for patient questions ,Maintains communication with patient and family regarding the pathology report.</p> <p>Communicates effectively in stressful, emergent, and complex</p>
PBLI 2	<p>Does not Show commitment to self-evaluation, lifelong learning, and patient safety.</p> <p>Fails to Demonstrate understanding of the basic concepts of Quality Indicators</p> <p>Inability to Readappropriate information, as assigned by the program or related to reporting formats</p> <p>Fails toUnderstand level of evidence for patient care recommendations.</p> <p>Lacks References and utilizes national standards or guidelines in reporting of sub subspecialities of Pathology. Fails to Identify quality of care issues within one’s own practice with a systems-based approach</p>	<p>Shows commitment to self- evaluation, lifelong learning, and patient safety.</p> <p>Demonstrates understanding of the basic concepts of Quality Indicators</p> <p>Reads appropriate information, as assigned by the program or related to reporting formats</p> <p>Understands level of evidence for patient care recommendations.</p> <p>References and utilizes national standards or guidelines in reporting of sub subspecialities of Pathology.</p> <p>Identifies quality of care issues within one’s own practice with a systems-based approach</p>
P 1	<p>Lacks Consistently compassion, integrity, and respect in typical situations with patients, peers, and members of the health care team</p> <p>Lacks Consistentlytodemonstrate sensitivity and responsiveness to the diagnostic services</p>	<p>Consistentlyshows compassion, integrity, and respect in typical situations with patients, peers, and members of the health care team</p> <p>Consistentlydemonstrates sensitivity and responsiveness to the diagnostic services</p>

EPA 31 :Should be familiar with FDA regulations for blood bank

1. Description of the activity: This included a brief rationale and a list of the functions required for the EPA.	Resident should be familiar with FDA regulations for blood bank
2. Most relevant domains of competence:	MK ICS SBP P
3. Competencies within each domain critical to entrustment decisions:	MK2.3, ICS2.3, SBP1.2, P2.3
4. Methods of assessment	Written exam (Every 6 months) Workplace assessment by Faculty Multisource feedback a. Health care workers, b. Peers

Competency	Pre-Entrustable	Entrustable
MK 2	Lacks Demonstration of ability to formulate a differential diagnosis of various pathological conditions. Fails to Demonstrate an understanding of disease process and morphological changes Inability to Demonstrate the ability to formulate comprehensive reporting format Lacks knowledge relevant to reporting of various fields like surgical Pathology, Cytology and hematology. In ability to Interpret tests appropriate to disease with differential diagnosis.	Demonstrates the ability to formulate a differential diagnosis of various pathological conditions. Demonstrates an understanding of disease process and morphological changes Demonstrates the ability to formulate comprehensive reporting format Demonstrates knowledge relevant to reporting of various fields like surgical Pathology, Cytology and hematology. Demonstrates the ability to Interpret tests appropriate to disease with differential diagnosis.
ICS 2	Fails to understand the importance of informed consent for FNAC, Bone marrow aspiration, etc. Inability to engage patients in shared decision making, and obtains informed consent for basic procedures like FNAC, Bone marrow aspiration, donor screening, bleeding etc.	Understands the importance of informed consent for FNAC, Bone marrow aspiration, etc. Begins to engage patients in shared decision making, and obtains informed consent for basic procedures like FNAC, Bone marrow aspiration, donor screening, bleeding etc.
SBP 1	Fail to Recognize limitations and failures of a team approach (e.g., hand-offs, miscommunication) in health care as the leading cause of preventable patient harm. Fails to participate in laboratory safety reporting and analyzing systems. Inability to demonstrate knowledge national laboratory safety standards, as well as their use/application in the institution	Recognizes limitations and failures of a team approach (e.g., hand-offs, miscommunication) in health care as the leading cause of preventable patient harm. Participates in laboratory safety reporting and analyzing systems Participates in team drills Demonstrates knowledge national laboratory safety standards, as well as their use/application in the institution

P 2	Fail to Understand that pathologists are accountable to patients, society, and the profession Acts with honesty and truthfulness. Inability to Serve as an example for others in punctuality, responsiveness, and timely completion of duties Fails to recognize signs and symptoms of fatigue, stress, and substance abuse	Understands that pathologists are accountable to patients, society, and the profession Acts with honesty and truthfulness. Serves as an example for others in punctuality, responsiveness, and timely completion of duties Recognizes signs and symptoms of fatigue, stress, and substance abuse
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EPA 32 : Should be able to investigate a case of mismatched blood transfusion	
1. Description of the activity: This included a brief rationale and a list of the functions required for the EPA.	Resident should be able to possess knowledge about various immediate and late donor reactions. Also should be able to manage various adverse donor reactions.
2. Most relevant domains of competence:	PC, ICS, PBLI, P
3. Competencies within each domain critical to entrustment decisions:	PC 1.3, ICS 1.2, PBLI 2.3, P1.2
4. Methods of assessment	Written exam (Every 6 months) Workplace assessment by Faculty Multisource feedback a. Health care workers, b. Peers

Competency	Pre-Entrustable	Entrustable
PC 1	Inability to Perform basic procedures, including Peripheral smear preparation and Pap smear. Fails to Demonstrate basic technical procedures including use of universal precautions and aseptic technique Lack of Orientation of resident to various procedures in reporting from sample reception to report despatch Does not Assist in urine and blood examination, FNAC, bone marrow aspiration etc Fails to Perform Processing and staining, peripheral smear examination and assist in reporting. Fails to Perform urine and blood examination, FNAC and bone marrow aspiration. Does not Work effectively as an assistant in routine reporting in various sub-speciality of pathology	Performs basic procedures, including Peripheral smear preparation and Pap smear. Demonstrates basic technical procedures including use of universal precautions and aseptic technique Orientation of resident to various procedures in reporting from sample reception to report despatch Assist in urine and blood examination, FNAC, bone marrow aspiration etc Performs Processing and staining, peripheral smear examination and assist in reporting Performs urine and blood examination, FNAC and bone marrow aspiration. Works effectively as an assistant in routine reporting in various sub-speciality of pathology

ICS 1	<p>Inability to Demonstrate adequate listening skills.</p> <p>Fails to Communicate effectively in routine clinical situations</p> <p>Does not Verbalize basic knowledge about common reports.</p> <p>Fails to Understand the importance of informed consent.</p> <p>Fails to Enquire for patient and family understanding of illness and DoesnotMaintain communication with patient and family regarding the pathology report.</p> <p>Does not Communicate effectively in stressful, emergent, and complex</p>	<p>Demonstrates adequate listening skills. Communicates effectively in routine clinical situations</p> <p>Verbalizes basic knowledge about common reports, Understands the importance of informed consent,Enquiresfor patient and family understanding of illness and Allows opportunities for patient questions , Maintains communication with patient and family regarding the pathology report.</p> <p>Communicates effectively in stressful, emergent, and complex</p>
PBLI 2	<p>Does not Show commitment to self-evaluation, lifelong learning, and patient safety.</p> <p>Fails to Demonstrate understanding of the basic concepts of Quality Indicators</p> <p>Inability to Readappropriate information, as assigned by the program or related to reporting formats</p> <p>Fails toUnderstand level of evidence for patient care recommendations.</p> <p>Lacks References and utilizes national standards or guidelines in reporting of sub subspecialities of Pathology.</p> <p>Fails to identify quality of care issues within one’s own practice with a systems- based approach</p>	<p>Shows commitment to self- evaluation, lifelong learning, and patient safety.</p> <p>Demonstrates understanding of the basic concepts of Quality Indicators</p> <p>Reads appropriate information, as assigned by the program or related to reporting formats</p> <p>Understands level of evidence for patient care recommendations.</p> <p>References and utilizes national standards or guidelines in reporting of sub subspecialities of Pathology.</p> <p>Identifies quality of care issues within one’s own practice with a systems- based approach</p>
P 1	<p>Lacks Consistently compassion, integrity, and respect in typical situations with patients, peers, and members of the health care team</p> <p>Lacks Consistentlytodemonstrate sensitivity and responsiveness to the diagnostic services</p>	<p>Consistentlyshows compassion, integrity, and respect in typical situations with patients, peers, and members of the health care team</p> <p>Consistentlydemonstrates sensitivity and responsiveness to the diagnostic services</p>

EPA 33 :Should be able to participate in multidisciplinary meetings like tumor boards, CPCs, Dermatopathological conferences	
1. Description of the activity: This included a brief rationale and a list of the functions required for the EPA.	Resident should be able to discuss the details of the pathological report in various CPCs, Tumor board and other meetings
2. Most relevant domains of competence:	MK, PC, ICS1, SBP, PBLI, P
3. Competencies within each domain critical to entrustment decisions:	MK1.3, PC2.3, ICS1.3, SBP1.3 PBLI2.3, P1.3
4. Methods of assessment	Written exam (Every 6 months) Workplace assessment by Faculty Multisource feedback a. Health care workers, b. Peers

Competency	Pre-Entrustable	Entrustable
MK 2	Lacks Demonstration of ability to formulate a differential diagnosis of various pathological conditions. Fails to Demonstrate an understanding of disease process and morphological changes Inability to Demonstrate the ability to formulate comprehensive reporting format Lacks knowledge relevant to reporting of various fields like surgical Pathology, Cytology and hematology. In ability to Interpret tests appropriate to disease with differential diagnosis.	Demonstrates the ability to formulate a differential diagnosis of various pathological conditions. Demonstrates an understanding of disease process and morphological changes Demonstrates the ability to formulate comprehensive reporting format Demonstrates knowledge relevant to reporting of various fields like surgical Pathology, Cytology and hematology. Demonstrates the ability to Interpret tests appropriate to disease with differential diagnosis.
PC 1	Inability to Perform basic procedures, including Peripheral smear preparation and Pap smear. Fails to Demonstrate basic technical procedures including use of universal precautions and aseptic technique Lack of Orientation of resident to various procedures in reporting from sample reception to report despatch Does not Assist in grossing station, FNAC, bone marrow aspiration etc Fails to Perform Processing and staining, peripheral smear examination and assist in reporting. Fails to Perform grossing, FNAC and bone marrow aspiration. Does not Work effectively as a assistant in routine reporting in various sub- speciality of pathology	Performs basic procedures, including Peripheral smear preparation and Pap smear. Demonstrates basic technical procedures including use of universal precautions and aseptic technique Orientation of resident to various procedures in reporting from sample reception to report despatch Assists in grossing station, FNAC, bone marrow aspiration etc Performs Processing and staining, peripheral smear examination and assist in reporting Performs grossing, FNAC and bone marrow aspiration. Works effectively as a assistant in routine reporting in various sub- speciality of pathology

ICS 1	<p>Inability to Demonstrate adequate listening skills.</p> <p>Fails to Communicate effectively in routine clinical situations</p> <p>Does not Verbalize basic knowledge about common reports.</p> <p>Fails to Understand the importance of informed consent.</p> <p>Does not enquire for patient and family understanding of illness and</p> <p>DoesnotMaintain communication with patient and family regarding the pathology report.</p> <p>Does not Communicate effectively in stressful, emergent, and complex</p>	<p>Demonstrates adequate listening skills. Communicates effectively in routine clinical situations</p> <p>Verbalizes basic knowledge about common reports, Understands the importance of informed consent,Enquiresfor patient and family understanding of illness and Allows opportunities for patient questions, Maintains communication with patient and family regarding the pathology report.</p> <p>Communicates effectively in stressful, emergent, and complex</p>
SBP 1	<p>Fails to Recognize limitations and failures of a team approach (e.g., hand-offs, miscommunication) in health care as the leading cause of preventable patient harm. Fail to participate in laboratory safety reporting and analyzing systems. Inability to demonstrate knowledge national laboratory safety standards, as well as their use/application in the institution.</p>	<p>Recognizes limitations and failures of a team approach (e.g., hand-offs, miscommunication) in health care as the leading cause of preventable patient harm. Participates in laboratory safety reporting and analyzing systems Participates in team drills Demonstrates knowledge national laboratory safety standards, as well as their use/application in the institution</p>
PBLI 1	<p>Does not Show commitment to self-evaluation, lifelong learning, and patient safety.</p> <p>Fails to Demonstrate understanding of the basic concepts of Quality Indicators</p> <p>Inability to Read appropriate information, as assigned by the program or related to reporting formats</p> <p>Fails to Understand level of evidence for patient care recommendations.</p> <p>Lacks References and utilizes national standards or guidelines in reporting of various sub speciality of Pathology.</p> <p>Fails to Identify quality of care issues within one's own practice with a systems- based approach</p>	<p>Shows commitment to self- evaluation, lifelong learning, and patient safety.</p> <p>Demonstrates understanding of the basic concepts of Quality Indicators</p> <p>Reads appropriate information, as assigned by the program or related to reporting formats Understands level of evidence for patient care recommendations.</p> <p>References and utilizes national standards or guidelines in reporting of various sub speciality of Pathology.</p> <p>Identifies quality of care issues within one's own practice with a systems-based approach</p>

P 2	<p>Fails to Understand that pathologists are accountable to patients, society, and the profession Acts with honesty and truthfulness.</p> <p>Inability to Serve as an example for others in punctuality, responsiveness, and timely completion of duties</p> <p>Fails to recognize signs and symptoms of fatigue, stress, and substance abuse</p>	<p>Understands that pathologists are accountable to patients, society, and the profession Acts with honesty and truthfulness.</p> <p>Serves as an example for others in punctuality, responsiveness, and timely completion of duties</p> <p>Recognizes signs and symptoms of fatigue, stress, and substance abuse</p>
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EPA 34 :Should be able to present oral and poster presentations, write paper in conferences	
1. Description of the activity: This included a brief rationale and a list of the functions required for the EPA.	Resident should be able to present oral and poster presentations, write paper in conferences.
2. Most relevant domains of competence:	MK, PC, ICS1, SBP, PBLI, P
3. Competencies within each domain critical to entrustment decisions:	MK1.3, PC2.3, ICS1.3, SBP1.3 PBLI2.3, P1.3
4. Methods of assessment	<p>Written exam (Every 6 months)</p> <p>Workplace assessment by Faculty</p> <p>Multisource feedback</p> <p>a.Health care workers, b.Peers</p>

Competency	Pre-Entrustable	Entrustable
MK 2	<p>Lacks Demonstration of ability to formulate a differential diagnosis of various pathological conditions.</p> <p>Fails to Demonstrate an understanding of disease process and morphological changes</p> <p>Inability to Demonstrate the ability to formulate comprehensive reporting format</p> <p>Lacks knowledge relevant to reporting of various fields like surgical Pathology, Cytology and hematology. In ability to Interpret tests appropriate to disease with differential diagnosis.</p>	<p>Demonstrates the ability to formulate a differential diagnosis of various pathological conditions. Demonstrates an understanding of disease process and morphological changes Demonstrates the ability to formulate comprehensive reporting format Demonstrates knowledge relevant to reporting of various fields like surgical Pathology, Cytology and hematology. Demonstrates the ability to Interpret tests appropriate to disease with differential diagnosis.</p>
PC 1	<p>Inability to Perform basic procedures, including Peripheral smear preparation and Pap smear.</p> <p>Fails to Demonstrate basic technical procedures including use of universal precautions and aseptic technique</p> <p>Lack of Orientation of resident to various procedures in reporting from sample reception to report despatch Does not Assist in grossing station, FNAC, bone marrow aspiration etc</p> <p>Fails to Perform Processing and staining, peripheral smear examination and assist in reporting. Fails to Perform grossing, FNAC and bone marrow aspiration.</p> <p>Does not Work effectively as a assistant in routine reporting in various sub- speciality of pathology</p>	<p>Performs basic procedures, including Peripheral smear preparation and Pap smear. Demonstrates basic technical procedures including use of universal precautions and aseptic technique Orientation of resident to various procedures in reporting from sample reception to report despatch Assists in grossing station, FNAC, bone marrow aspiration etc Performs Processing and staining, peripheral smear examination and assist in reporting Performs grossing, FNAC and bone marrow aspiration. Works effectively as a assistant in routine reporting in various sub- speciality of pathology</p>

ICS 1	<p>Inability to Demonstrate adequate listening skills.</p> <p>Fails to Communicate effectively in routine clinical situations</p> <p>Does not Verbalize basic knowledge about common reports.</p> <p>Fails to Understands the importance of informed consent.</p> <p>Does not Enquire for patient and family understanding of illness and Does not Maintain communication with patient and family regarding the pathology report.</p> <p>Does not Communicate effectively in stressful, emergent, and complex</p>	<p>Demonstrates adequate listening skills. Communicates effectively in routine clinical situations</p> <p>Verbalizes basic knowledge about common reports, Understands the importance of informed consent, Enquires for patient and family understanding of illness and Allows opportunities for patient questions , Maintains communication with patient and family regarding the pathology report.</p> <p>Communicates effectively in stressful, emergent, and complex</p>
SBP 1	<p>Fails to Recognize limitations and failures of a team approach (e.g., hand-offs, miscommunication) in health care as the leading cause of preventable patient harm.</p> <p>Fails to participate in laboratory safety reporting and analyzing systems. Inability to demonstrate knowledge national laboratory safety standards, as well as their use/application in the institution.</p>	<p>Recognizes limitations and failures of a team approach (e.g., hand-offs, miscommunication) in health care as the leading cause of preventable patient harm. Participates in laboratory safety reporting and analyzing systems Participates in team drills</p> <p>Demonstrates knowledge national laboratory safety standards, as well as their use/application in the institution.</p>
PBLI 1	<p>Does not Show commitment to self-evaluation, lifelong learning, and patient safety.</p> <p>Fails to Demonstrate understanding of the basic concepts of Quality Indicators</p> <p>Inability to Read appropriate information, as assigned by the program or related to reporting formats</p> <p>Fails to Understand level of evidence for patient care recommendations.</p> <p>Lacks References and utilizes national standards or guidelines in reporting of various sub speciality of Pathology. Does not Identify quality of care issues within one's own practice with a systems- based approach</p>	<p>Shows commitment to self-evaluation, lifelong learning, and patient safety.</p> <p>Demonstrates understanding of the basic concepts of Quality Indicators</p> <p>Reads appropriate information, as assigned by the program or related to reporting formats Understands level of evidence for patient care recommendations.</p> <p>References and utilizes national standards or guidelines in reporting of various sub speciality of Pathology.</p> <p>Identifies quality of care issues within one's own practice with a systems- based approach</p>
P 2	<p>Fails to Understand that pathologists are accountable to patients, society, and the profession Acts with honesty and truthfulness. Inability to Serve as an example for others in punctuality, responsiveness, and timely completion of duties Fails to recognize signs and symptoms of fatigue, stress, and substance abuse</p>	<p>Understands that pathologists are accountable to patients, society, and the profession Acts with honesty and truthfulness.</p> <p>Serves as an example for others in punctuality, responsiveness, and timely completion of duties Recognizes signs and symptoms of fatigue, stress, and substance abuse</p>

EPA 35 : Should be able to teach pathology to undergraduates (MBBS), and allied health sciences like BDS, BSc (Nursing), BSc (MLT), BSc (Radiology), etc.	
1. Description of the activity: This included a brief rationale and a list of the functions required for the EPA.	Resident should be able to teach pathology to undergraduates (MBBS), and allied health sciences like BDS, BSc (Nursing), BSc (MLT), BSc (Radiology), etc.
2. Most relevant domains of competence:	MK, ICS
3. Competencies within each domain critical to entrustment decisions:	MK1.3, ICS 3.3
4. Methods of assessment	Written exam (Every 6 months) Workplace assessment by Faculty Multisource feedback a. Health care workers, d. Peers

Competency	Pre-Entrustable	Entrustable
MK 1	<p>Fails to demonstrate a knowledge of normal anatomy, histology and functions of various organs</p> <p>Fails to Explain pathogenesis and morphology of various organ system</p> <p>Fails to Demonstrate the ability to identifies the gross morphological changes in organs</p> <p>Inability to Demonstrate knowledge about the various microscopic changes in various disease</p>	<p>Demonstrates a knowledge of normal anatomy, histology and functions of various organs</p> <p>Explains pathogenesis and morphology of various organ system</p> <p>Demonstrates the ability to identifies the gross morphological changes in organs</p> <p>Demonstrates knowledge about the various microscopic changes in various disease</p>
ICS 3	<p>Fails to understand the importance of concepts in pathology and able to communicates to juniors.</p> <p>Inability to assist in teaching the Undergraduate students.</p> <p>Fails to participate in teaching undergraduates both theory and practical.</p>	<p>Understands the importance of concepts in pathology and able to communicates to juniors.</p> <p>Assists in teaching the Undergraduate students.</p> <p>Participates in teaching undergraduates both theory and practical.</p>

EPA 36 :Should be able to supervise technicians	
1. Description of the activity: This included a brief rationale and a list of the functions required for the EPA.	Resident should be able to teach and supervise the technicians
2. Most relevant domains of competence:	MK, ICS
3. Competencies within each domain critical to entrustment decisions:	MK1.3, ICS 3.3
4. Methods of assessment	Written exam (Every 6 months) Workplace assessment by Faculty Multisource feedback a. Health care workers, d. Peers

Competency	Pre-Entrustable	Entrustable
MK 1	<p>Fails to demonstrate a knowledge of normal anatomy, histology and functions of various organs</p> <p>Fails to Explain pathogenesis and morphology of various organ system</p> <p>Fails to Demonstrate the ability to identifies the gross morphological changes in organs</p> <p>Inability to Demonstrate knowledge about the various microscopic changes in various disease</p>	<p>Demonstrates a knowledge of normal anatomy, histology and functions of various organs</p> <p>Explains pathogenesis and morphology of various organ system</p> <p>Demonstrates the ability to identifies the gross morphological changes in organs</p> <p>Demonstrates knowledge about the various microscopic changes in various disease</p>
ICS 3	<p>Fails to understand the importance of concepts in pathology and able to communicates to juniors.</p> <p>Inability to assist in teaching the Undergraduate students.</p> <p>Fails to participate in teaching undergraduates both theory and practicals. undergraduates both theory and practicals.</p>	<p>Understands the importance of concepts in pathology and able to communicates to juniors. Assists in teaching the Undergraduate students. Participates in teaching undergraduates both theory and practicals.</p>

EPA 37: Should have thorough knowledge of Biomedical Waste disposal.

1. Description of the activity: This included a brief rationale and a list of the functions required for the EPA.	Resident should be able to categorise the biomedical waste and possess the knowledge about biomedical waste disposal.
2. Most relevant domains of competence:	MK, PC, ICS, P
3. Competencies within each domain critical to entrustment decisions:	MK1.3, PC2.3, ICS1.4, P1.3
4. Methods of assessment	<p>Periodic written exam (Every 6 months)</p> <p>Workplace assessment by Faculty</p> <p>Multisource feedback</p> <p>a. Health care workers, b. Peers</p>

Competency	Pre-Entrustable	Entrustable
MK 1	<p>Fails to demonstrate a knowledge of normal anatomy, histology and functions of various organs</p> <p>Fails to Explain pathogenesis and morphology of various organ system</p> <p>Fails to Demonstrate ability to identifies the gross morphological changes in organs</p> <p>Inability to Demonstrate knowledge about the various microscopic changes in various disease</p>	<p>Demonstrates a knowledge of normal anatomy, histology and functions of various organs</p> <p>Explains pathogenesis and morphology of various organ system</p> <p>Demonstrates the ability to identifies the gross morphological changes in organs</p> <p>Demonstrates knowledge about the various microscopic changes in various disease</p>

PC 2	<p>Inability to Perform basic procedures, including Peripheral smear preparation and Pap smear.</p> <p>Fails to Demonstrate basic technical procedures including use of universal precautions and aseptic technique</p> <p>Lack of Orientation of resident to various procedures in reporting from sample reception to report despatch</p> <p>Does not Assist in grossing station, FNAC, bone marrow aspiration etc Fails to Perform Processing and staining, peripheral smear examination and assist in reporting.</p> <p>Fails to Perform grossing, FNAC and bone marrow aspiration.</p> <p>Does not Work effectively as an assistant in routine reporting in various sub- speciality of pathology</p>	<p>Performs basic procedures, including Peripheral smear preparation and Pap smear.</p> <p>Demonstrates basic technical procedures including use of universal precautions and aseptic technique</p> <p>Orientation of resident to various procedures in reporting from sample reception to report despatch</p> <p>Assists in grossing station, FNAC, bone marrow aspiration etc Performs Processing and staining, peripheral smear examination and assist in reporting Performs grossing, FNAC and bone marrow aspiration. Works effectively as an assistant in routine reporting in various sub- speciality of pathology</p>
ICS 1	<p>Inability to Demonstrate adequate listening skills.</p> <p>Fails to Communicate effectively in routine clinical situations</p> <p>Does not Verbalizes basic knowledge about common reports.</p> <p>Fails to Understand the importance of informed consent.</p> <p>Does not Enquire for patient and family understanding of illness and</p> <p>Does not Maintain communication with patient and family regarding the pathology report.</p> <p>Do not Communicate effectively in stressful, emergent, and complex</p>	<p>Demonstrates adequate listening skills.</p> <p>Communicates effectively in routine clinical situations</p> <p>Verbalizes basic knowledge about common reports,</p> <p>Understands the importance of informed consent</p> <p>Enquire for patient and family understanding of illness and</p> <p>Allows opportunities for patient questions,</p> <p>Maintains communication with patient and family regarding the pathology report.</p> <p>Communicates effectively in stressful, emergent, and complex</p>
P1	<p>Lacks Consistently compassion, integrity, and respect in typical situations with patients, peers, and members of the health care team</p> <p>Lacks Consistently to demonstrate sensitivity and responsiveness to the diagnostic services</p>	<p>Consistently shows compassion, integrity, and respect in typical situations with patients, peers, and members of the health care team</p> <p>Consistently demonstrates sensitivity and responsiveness to the diagnostic services</p>

EPA 38 :Should be familiar with norms and requirements of NABL,NABH Accreditation	
1. Description of the activity: This included a brief rationale and a list of the functions required for the EPA.	Resident should be able to acquire knowledge about NABL and NABH. Resident should assist consultants in NABL and NABH documentation.
2. Most relevant domains of competence:	MK,ICS, SBP, P
3. Competencies within each domain critical to entrustment decisions:	MK2.3, ICS2.3, SBP1.2, P2.3
4.Methods of assessment	Periodic written exam (Every 6 months) Workplace assessment by Faculty Multisource feedback a. Health care workers, b. Peers

Competency	Pre-Entrustable	Entrustable
MK 1	Lacks Demonstration of ability to formulate a differential diagnosis of various pathological conditions. Fails to Demonstrate an understanding of disease process and morphological changes Inability to Demonstrate the ability to formulate comprehensive reporting format Lacks knowledge relevant to reporting of various fields like surgical Pathology, Cytology and hematology. Inability to Interpret tests appropriate to disease with differential diagnosis.	Demonstrates the ability to formulate a differential diagnosis of various pathological conditions. Demonstrates an understanding of disease process and morphological changes Demonstrates the ability to formulate comprehensive reporting format Demonstrates knowledge relevant to reporting of various fields like surgical Pathology, Cytology and hematology. Demonstrates the ability to Interpret tests appropriate to disease with differential diagnosis.
ICS 2	Fails to understandthe importance of informed consent for FNAC, Bone marrow aspiration, etc. Inabilityto engage patients in shared decision making, and obtains informed consent for basic procedures like FNAC, Bone marrow aspiration, etc.	Understands the importance of informed consent for FNAC, Bone marrow aspiration, etc. Begins to engage patients in shared decision making, and obtains informed consent for basic procedures like FNAC, Bone marrow aspiration, etc.
SBP 1	Fails to Recognize limitations and failures of a team approach (e.g., hand-offs, miscommunication) in health care as the leading cause of preventable patient harm. Fails to participatein laboratory safety reporting and analyzing systems. Inability to demonstrate knowledge national laboratory safety standards, as well as their use/application in the institution.	Recognizes limitations and failures of a team approach (e.g., hand-offs, miscommunication) in health care as the leading cause of preventable patient harm. Participates in laboratory safety reporting and analyzing systems Participates in team drills Demonstrates knowledge national laboratory safety standards, as well as their use/application in the institution.

P 2	Fails to Understand that pathologists are accountable to patients, society, and the profession Acts with honesty and truthfulness. Inability to Serve as an example for others in punctuality, responsiveness, and timely completion of duties Fails to recognize signs and symptoms of fatigue, stress, and substance abuse	Understands that pathologists are accountable to patients, society, and the profession Acts with honesty and truthfulness. Serves as an example for others in punctuality, responsiveness, and timely completion of duties Recognizes signs and symptoms of fatigue, stress, and substance abuse
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EPA 39 :Should be able to carry out systematic research work for dissertation.

1. Description of the activity: This included a brief rationale and a list of the functions required for the EPA.	Resident should be able to carry out systematic research work for dissertation
2. Most relevant domains of competence:	PC, ICS
3. Competencies within each domain critical to entrustment decisions:	PC 4.4, ICS 2.4
4. Methods of assessment	Written exam (Every 6 months) Workplace assessment by Faculty Multisource feedback a. Health care workers, b. Peers

Competency	Pre-Entrustable	Entrustable
PC 4	Inability to formulate plans and initiates appropriate screening measure. Inability to supervise and educates lower level residents. Fails to collaborate and provides consultation to other members of the health care team. Does not apply innovative approaches for preventive and promotive health care research.	Formulates plans and initiates appropriate screening measure. Effectively supervises and educates lower level residents. Collaborates and provides consultation to other members of the health care team. Applies innovative approaches for preventive and promotive health care research.
ICS 2	Fails to Lead inter-professional and interdisciplinary health care teams to achieve optimal outcomes. Inability to Lead effective transitions of care and team debriefing. Does not respond to requests for consultation in a timely manner and communicates recommendations to the requesting team. Fails to Provide effective consultation in complex and atypical patients Does not Apply innovative approaches for research	Leads inter-professional and interdisciplinary health care teams to achieve optimal outcomes. Leads the team in complex situation Leads effective transitions of care and team debriefing Responds to requests for consultation in a timely manner and communicates recommendations to the requesting team. Provides effective consultation in complex and atypical patients Provides appropriate role modelling Applies innovative approaches for research

EPA 40 :Should be able to perform as a team leader.	
1. Description of the activity: This included a brief rationale and a list of the functions required for the EPA.	Resident should be able to communicate with senior faculty, juniors and colleagues and maintain a good rapport with all paramedical staff. Resident should be able to perform as a team leader.
2. Most relevant domains of competence:	PC, ICS, p
3. Competencies within each domain critical to entrustment decisions:	PC 4.4, ICS 2.4, P2.3
4. Methods of assessment	1. Written exam (Every 6 months) 2. Workplace assessment by Faculty 3. Multisource feedback a. Health care workers, b. Peers

Competency	Pre-Entrustable	Entrustable
PC 4	Inability to formulate plans and initiates appropriate screening measure. Inability to supervise and educates lower level residents. Fails to collaborate and provides consultation to other members of the health care team. Does not apply innovative approaches for preventive and promotive health care research.	Formulates plans and initiates appropriate screening measure. Effectively supervises and educates lower level residents. Collaborates and provides consultation to other members of the health care team. Applies innovative approaches for preventive and promotive health care research.
ICS 2	Fails to Lead inter-professional and interdisciplinary health care teams to achieve optimal outcomes. Inability to Lead effective transitions of care and team debriefing. Does not respond to requests for consultation in a timely manner and communicates recommendations to the requesting team. Fails to Provide effective consultation in complex and atypical patients Does not Apply innovative approaches for research	Leads inter-professional and interdisciplinary health care teams to achieve optimal outcomes. Leads the team in complex situation Leads effective transitions of care and team debriefing Responds to requests for consultation in a timely manner and communicates recommendations to the requesting team. Provides effective consultation in complex and atypical patients Provides appropriate role modelling Applies innovative approaches for research
P2	Fails to Understand that pathologists are accountable to patients, society, and the profession Acts with honesty and truthfulness. Inability to Serve as an example for others in punctuality, responsiveness, and timely completion of duties Fails to recognize signs and symptoms of fatigue, stress, and substance abuse	Understands that pathologists are accountable to patients, society, and the profession Acts with honesty and truthfulness. Serves as an example for others in punctuality, responsiveness, and timely completion of duties Recognizes signs and symptoms of fatigue, stress, and substance abuse

**7.1.3. Table 5. Mapping of PO, CO, EPA, Competency and Sub-competency with level**

EPA		Program outcomes								
1	Should be able to perform gross examination and sampling of surgical pathology specimens	1		3	4	5				MK - 1.3/PC - 2.3/ ICS - 1.4/P - 1.3
2	Should be able to interpret gross and microscopic histomorphological alterations in tissue.	1		3	4	5				MK1.3/PC1.3/ICS1.2/ PBLI2.3/P1.2
3	Should be able to correlate histomorphological alterations with relevant clinical, operative and radiological data and arrive at the diagnosis.	1		3	4	5		7		MK1.3/PC2.3/ICS 1.2/ PBLI2.3/P1.2
4	Should be able to process tissue bits	1		3	4					MK1.3/PC2.3/P1.2
5	Should be able to take sections using microtome	1		3	4					MK1.3/PC2.3/P1.2
6	Should be able to perform H and E stain	1		3	4					PC2.3/ P1.3
7	Should be able to decide appropriate special stain and perform it whenever necessary	1		3	4	5		7		MK 4.3/ MC 2.3/ PC3.2/ P 1.3
8	Should be able to decide appropriate immunohistochemical markers, perform and interpret	1		3	4	5		7		MK 4.3/ MC 2.3/ PC3.2/PBLI1.3/P1.3
9	Should be able to interpret frozen sections	1		3	4	5		7		MK 4.3/ MC 2.3/ PC3.2/PBLI1.3/P1.3
10	Should be familiar with indications and interpretation of ancillary techniques like Karyotyping, FISH, PCR, electron microscopy	1		3	4	5				PC2.3/PBLI2.2/P1.3
11	Should be able to interpret and diagnose cytological smears	1		3	4	5				MK1.3/MK2.3/PC1.2
12	Should be able to interpret cytology of sputum, bronchial washings, serous effusions, etc.	1		3	4	5				MK1.3/MK2.3/PC1.2
13	Should be able to prepare, stain and interpret peripheral smear	1		3	4	5				MK 2.3/PC 1.3/ICS 3.2/ PBLI 2.2/ P 1.3
14	Should be able to interpret bone marrow smears	1		3	4	5				MK 2.3/PC 1.3/ICS 3.2/ PBLI 2.2/ P 1.3

15	Should be able to perform and interpret routine haematological investigations like haemoglobin, TLC, DLC, ESR PCV, Blood indices.	1		3	4	5		7			MK2.3/PC1.3/ICS 2.3/ P 1.3
16	Should be able to perform and interpret special investigations like Retic count, Sickling test, Osmotic fragility test, haemoglobin electrophoresis, Fetal Haemoglobin, etc.	1		3	4	5		7			MK2.3/PC1.3/ICS 2.3/ P 1.3
17	Should be able to plan investigations in a clinical case	1	2	3	4	5	6				MK2.3/PC1.3/ICS 2.3/ SBP 1.3/ PBLI 2.3/ P1.3
18	Should be able to perform and interpret Urine Examination	1	2	3	4	5					MK2.3/PC1.3/ICS 2.3/ P 1.3
19	Should be able to perform and interpret CSF, Pleural Fluid, Peritoneal Fluid, Synovial fluid examination.	1	2	3	4	5					MK2.3/PC1.3/ICS 2.3/ P 1.3
20	Should be able to perform and interpret semen analysis.	1	2	3	4	5					MK2.3/PC1.3/ICS 3.2/ PBLI 2.2/ P 1.3
21	Should be able to perform urgent investigations like CSF, Platelet count during emergency duties.	1	2	3	4	5					PC 2.3/ PBLI 2.2/ P 1.3
22	Should demonstrate familiarity with in laboratory investigations in Microbiology and biochemistry			3	4	5	6	7	8		MK4.2/PC1.3/ICS 2.3/ P 1.3
23	Should be able to plan and execute internal quality control programme for laboratory			3	4		6		8		MK4.2/PC4.3/SBP 1.3
24	Should be able to participate in external quality control programme			3	4		6		8		MK4.2/PC4.3/SBP 1.3
25	Should be able to perform blood grouping and Rh typing		2	3	4	5					MK1.3/PC1.3/ICS 1.2/ PBLI 2.3/ P1.2
26	Should be able to perform cross-matching		2	3	4	5					MK1.3/PC1.3/ICS 1.2/ PBLI 2.3/ P1.2
27	Should be able to perform ELISA for infectious disease, Coomb's test		2	3	4	5					MK1.3/PC1.3/ICS 1.2/ PBLI 2.3/ P1.2
28	Should be able to separate blood components and have knowledge of indications of using blood components		2	3	4	5					PC1.3/ICS1.2/PBLI 2.3/ P 1.2

29	Should have knowledge of criteria of selection of blood donors		2	3	4	5					PC1.3/ICS1.2/PBLI 2.3/ P 1.2
30	Should be able to manage adverse donor reactions		2	3	4	5	6	7			PC1.3/ICS1.2/PBLI 2.3/ P 1.2
31	Should be familiar with FDA regulations for blood bank		2				6	7	8	9	MK2.3/ICS2.3/SBP 1.2/ P2.3
32	Should be able to investigate a case of mismatched blood transfusion		2	3	4	5	6	7			PC1.3/ICS1.2/PBLI 2.3/ P1.2.
33	Should be able to participate in multidisciplinary meetings like tumor boards, CPCs, Dermatopathological conferences				4	5	6	7	8		MK 2.3/ PC 1.3/ ICS 1.3/ SBP 1.2/ PBLI1.3/ P 2.3.
34	Should be able to present oral and poster presentations, write paper in conferences				4	5	6	7	8		MK 2.3/ PC 1.3/ ICS 1.3/ SBP 1.2/ PBLI1.3/ P 2.3.
35	Should be able to teach pathology to undergraduates (MBBS), and allied health sciences like BDS, BSc (Nursing), BSc (MLT), BSc (Radiology), etc.						6				MK 1.3/ ICS 3.3.
36	Should be able to supervise technicians				4	5		7			MK 1.3/ ICS 3.3.
37	Should have thorough knowledge of Biomedical Waste disposal						6	7	8		MK 1.3/PC 2.3/ICS 2.3/ P1.3
38	Should be familiar with norms and requirements of NABL, NABH Accreditation						6		8		MK2.33/ICS2.3/ SBP1.2/P2.3.
39	Should be able to carry out systematic research work for dissertation									9	PC 4.4/ ICS 2.3
40	Should be able to perform as a team leader	1	2	3	4	5	6	7	8	9	PC4.4/ICS2.3/P2.3

The Internal Assessment should be conducted in theory and clinical examination every 6 months

❖ Quarterly assessment during the MD trainings should be based on following educational activities:

1. Journal based / recent advances learning
2. Patient based /Laboratory or Skill based learning
3. Self directed learning and teaching
4. Departmental and interdepartmental learning activity
5. External and Outreach Activities / CMEs

The student to be assessed periodically as per categories listed in postgraduate student appraisal form (Annexure-2).

## **7.2 Summative assessment:**

### **7.2.1 Eligibility for appearing in the final university exam**

- ❖ Attendance : 75 % in each year
- ❖ One poster presentation in International/National/ State level conference.
- ❖ One oral presentation International/National/ State level conference.
- ❖ Submission of one scientific paper for publication to an indexed journal

### **7.2.2 Postgraduate Examination shall be in three parts:**

#### **1. Thesis**

Every post graduate student shall carry out work on an assigned research project under the guidance of a recognised Post Graduate Teacher, the result of which shall be written up and submitted in the form of a Thesis. Work for writing the Thesis is aimed at contributing to the development of a spirit of enquiry, besides exposing the post graduate student to the techniques of research, critical analysis, acquaintance with the latest advances in medical science and the manner of identifying and consulting available literature. Thesis shall be submitted at least six months before the Theory and Practical examination and will be evaluated by two external. A post graduate student shall be allowed to appear for the Theory and Practical examination only after the acceptance of the Thesis by the examiners.

#### **2. Theory Examination:**

There should be four theory papers, as given below:

- ❖ Paper I: General Pathology, Pathophysiology, Immunopathology and Cytopathology.
- ❖ Paper II: Systemic Pathology.
- ❖ Paper III: Hematology, Transfusion Medicine and Laboratory medicine.
- ❖ Paper IV: Recent Advances and Applied aspects.

Each theory paper will be of 100 marks i.e. 4 papers – 100 marks each (Total 400). Each paper will have 10 short essay answer questions of 10 marks each.

#### **3. Practical, Oral/viva voce Examination including Dissertation: shall be as given below:**

**Each student will be evaluated with all the components of Practical and viva-voce**

- ❖ Practical(300)
  1. **Clinical Pathology:** Discussion of a clinical case history, plan relevant investigations of the above case, perform them..
  2. **Haematology:** Discuss haematology cases given the relevant history Plan relevant investigations. Perform atleast two tests: one routine and one special exercise. Identify
  3. Electrophoresis strips, osmotic fragility chart etc. Examine report and discuss ten cases given the history and relevant blood smears and/or bone marrow aspirate smears.
  4. **Transfusion (Medicine):** Perform blood grouping or cross matching or Direct coomb's test
  5. **Histopathology (Cytopathology):** Examine, report and discuss fifteen histopathology and five cytopathology cases given the relevant history and slides. Perform a Haematoxylin and Eosin

stain and any special stain on a paraffin section Report on a frozen section

6. **Autopsy:** Given a case history and relevant organs (with or without slides) give a list of anatomical diagnosis in a autopsy case.
7. **Gross Pathology :** Describe findings of at least 10 gross specimens, give diagnosis and identify the sections to be processed
8. **Basic Sciences :** Identify electronmicrographs, Identify gels, results of PCR, immunological tests including staining for direct/indirect immunofluorescence, Identify histochemical and immunohistochemistry stains
9. Viva-voce is expected to be conducted at every stage of the practical examination. Additionally a formal “grand” viva-voce may be held at the end of the practical examination. Questions on the thesis/dissertation may be asked at this time.

**PRACTICAL MARKS (200 Marks)**

**Duration: 2 Days**

1. Histopathology & Cytology.....	70 marks
2. Autopsy .....	15 marks
3. Surgical Pathology .....	20 marks
4. Hematology case discussion and exercised including	
i) Hb/TLC/DLC/PBS -.....	15 Marks
ii) Special Haematology Exercise .....	10 marks
(Reticcount/Platelet count/PCV/ESR estimation / Sickling test)	
5. Transfusion Medicine ( Blood Group / DCT/ crossmatching) .....	15 marks
6. Haematology slides .....	5 marks
7. Clinical Pathology case discussion and Exercise (Urine examination) .....	20 marks
8. Histotechnique –	
Microtomy.....	10 marks
H & E stain .....	05 marks
Special stain.....	05 marks

Total 200 marks

**VIVA 100 marks**

**GRAND TOTAL 300 marks**

- ❖ **Pass criteria:**The examination MD shall be held at the end of 3rd academic year. There will be four evaluations for each theory paper. The examinations shall be organised on the basis of ‘Marking system’ to evaluate and to certify post graduate student's level of knowledge, skill and competence at the end of the training. Obtaining a minimum of 50% marks in ‘Theory’ as well as ‘Practical’ separately shall be mandatory for passing examination as a whole. Student must secure minimum of 40% in each paper and in aggregate 50% overall as far as theory is concerned .

## 8. Blue print of Weight of the system

### 8.1 PaperI: General Pathology, Pathophysiology, Immunopathology and Cytopathology

Sl. No	Discipline	Topics	Weightage	Marks Allotted	No. of Question
1	General Pathology	Cell injury & Cellular adaptation, Inflammation, Tissue repair, Hemodynamic disorders, Neoplasia, Genetics disorder, infectious disease, childhood and environmental disease.	30%	30	3
2	Pathophysiology	Cell injury & Cellular adaptation, Inflammation, Tissue repair, Hemodynamic disorders, Neoplasia, Genetics disorder, infectious disease, childhood and environmental disease.	30%	30	3
3	Immunopathology	Immunological disorder, Autoimmune disorders, Immunodeficiency disorder and AIDS	20%	20	2
4	Cytopathology	Cytology of various organs, Body fluids for malignancy, Various cytotechnique and cyto stains. Quality control in cytology	20%	20	2

## 8.2. Paper II: Systemic pathology

Sl. NO	Section	Topics	Weight-age	Marks Allotted	No. of Question
1	Systemic pathology	Pathogenesis, Morphology of diseases of various systems,	50%	50	5
2	Surgical pathology	Morphology reporting criteria, staging and grading of various diseases, Histopathology techniques, Automation and quality control in histopathology lab.	50%	50	5

## 8.3. Paper III: Hematology, Transfusion Medicine and Laboratory Medicine

Sl. NO	Section	Topics	Weight-age	Marks Allotted	No. of Question
1	Hematology	RBC disorders, WBC disorders, Platelet and coagulation disorders, Hematological techniques	60%	60	5
2	Transfusion medicine	Basic immunology, ABO and Rh groups, Clinical significance of other blood groups, Transfusion therapy including the use of whole blood and RBC concentrates, Blood component therapy, Rationale of pre-transfusion testing, Infections transmitted in blood, Adverse reactions to transfusion of blood and components and Quality control in blood bank.	20%	20	2
3	Laboratory medicine	Body fluids interpretation, Renal function tests, Liver function test, Pancreatic function test, Endocrine function test, Tests for malabsorption, automation in the laboratory and Quality control in the laboratory.	20%	20	2

## 8.4. Paper IV: Recent advance and applied aspects

Sl. NO	Section	Topics	Weight-age	Marks Allotted	No. of Question
1	Recent advances	Recent advances in histopathology, Cytology, Hematology, Transfusion Medicine	50%	50	5
2	Applied aspects	Applied aspects in Immunopathology, Electron microscopy, Histochemistry, Immunohistochemistry, Cytogenetics, Molecular Biology, Maintenance of records, Information retrieval, use of Computer and Internet in medicine, Quality control, waste disposal.	50%	50	5

## 9. Model question paper

### Model Question Papers Subject- Pathology

#### 9.1. Paper I :General Pathology

3 Hours

(10 x 10 = 100 marks)

#### 9.1 Paper I :General Pathology, Pathophysiology, Immunopathology and Cytopathology

#### ANSWER ALL QUESTIONS

(Draw labelled diagram wherever required)

- Q1. Explain role of apoptosis in Health and Disease
- Q2. Describe chemokines and their role in inflammation
- Q3. Describe Role of Myofibroblast in health and disease
- Q4. Explain Pathophysiology of irreversible shock
- Q5. Explain Implications of Genomic imprinting in human disease
- Q6. Explain Role of Major Histocompatibility Complex in disease
- Q7. Explain pathology of cerebral malaria
- Q8. Explain Role of angiogenesis in Neoplasia
- Q9. Describe cytofixatives
- Q10. Role of squash cytology in CNS tumors.

#### 9.2. Paper II: Systemic Pathology

3 Hours

(10 x 10 = 100 marks)

(Draw labelled diagram wherever required)

#### ANSWER ALL QUESTIONS

- Q1. Describe vasculitis syndromes
- Q2. Describe Pathology of pneumocystis carinii pneumonia
- Q3. Explain role of endoscopic biopsy in diagnosis of gastrointestinal lesions
- Q4. Explain Radiological appearances in correlation with pathological changes in various bone tumors
- Q5. Explain the role of electron microscopy and immunofluorescence in diagnosis of glomerular lesions
- Q6. Explain the pathology of neurodegenerative disorders
- Q7. Describe Microscopic variants of papillary carcinoma of thyroid.
- Q8. Explain morphology of Prostatic Intraepithelial Neoplasia
- Q9. Describe Vesiculobullous lesions of skin.
- Q10. Discuss the differential diagnosis of spindle cell sarcoma.

### **9.3. Paper III: Hematology, Transfusion Medicine and Laboratory medicine**

**3 Hours**

**(10 x 10 = 100 marks)**

#### **ANSWER ALL QUESTIONS**

**(Draw labelled diagram wherever required)**

- Q1. Explain Lab diagnosis of cold agglutinin disease
- Q2. Explain Immunophenotyping and cytogenetics of acute leukemias
- Q3. Explain lab diagnosis of purpura
- Q4. Define quality control and quality assurance. Discuss internal and external quality control programmes with specific reference to haematology
- Q5. Explain use of Microwave in histopathology
- Q6. Explain Diagnostic application of microscopic examination of urine
- Q7. Explain role of enzymes in health and disease
- Q8. What is Glycosylated hemoglobin?.Explain its importance
- Q9. Describe in brief the standard protocol and requirement in establishing modern blood bank
- Q10. Explain investigations for mismatched blood transfusion

### **9.4. Paper IV: Recent advance and Applied aspects**

**3 Hours**

**(10 x 10 = 100 marks)**

#### **ANSWER ALL QUESTIONS**

**(Draw labelled diagram wherever required)**

- Q1. Explain role of matrix metalloproteinases in tumor progression.
- Q2. Describe role of microarray analysis in diagnosis of tumors
- Q3. Describe in detail principle, technique and clinical application of flow cytometry
- Q4. Describe liquid based cytology for cervical screening
- Q5. Explain in brief methods of separation of blood components
- Q6. Discuss role of immunohistochemistry in diagnosis of round cell tumors
- Q7. Describe role of Automation in Histopathology laboratory
- Q8. Explain role of karyotyping in haematological malignancies
- Q9. Explain principle and application of Polymerase Chain reaction
- Q10. Explain role of Telepathology in modern Laboratory practice.

## 10. Recommended reading

### 10.1. Books

(Latest editions of the following books are recommended)

1	Rosai and Ackerman's Surgical Pathology
2	Atlas and Text of Haematology by Tejinder Singh
3	Orell's Atlas of Aspiration Cytology
4	Lever's Dermatopathology
5	Novak's Gynecologic and Obstetric Pathology with Clinical and Endocrine Relations by Edmund R. Novak
6	Bone Pathology by H. Jaffe
7	MacSween's Pathology of the liver
8	Iochim's Lymph Node Pathology
9	Text Book on Breast Pathology by Tavasoli
10	Text Book on Thyroid Pathology by GeethaJayaram
11	Theory and Practice of Histological Techniques by Bancroft
12	Gray's Diagnostic Cytopathology
13	Sternberg's Diagnostic Surgical Pathology
14	Dacie's Practical Haematology
15	Wintrobe's Haematology
16	Heptinstall's Pathology of the Kidney
17	Enzinger's Soft Tissue Tumours

### 10.2. Journals

- ❖ ActaCytologica
- ❖ The American Journal of Pathology
- ❖ The American Journal of Surgical Pathology
- ❖ The American Journal of Hematology
- ❖ The American Journal of Clinical Pathology
- ❖ Archives of Pathology and Laboratory Medicine
- ❖ British Journal of Haematology
- ❖ Blood
- ❖ Diagnostic Cytopathology
- ❖ Histopathology
- ❖ Human Pathology
- ❖ Indian Journal of Cytology
- ❖ Indian Journal of Pathology and Microbiology
- ❖ Journal of Pathology

- ❖ Journal of Clinical Pathology
- ❖ Laboratory Investigation
- ❖ Modern Pathology
- ❖ Pathology
- ❖ Seminars in Hematology
- ❖ Seminars in Diagnostic Pathology
- ❖ Virchows Archives
- ❖ Recent Advances Series

### **Annexure-1: Entrustable Professional Activities Assessment**

**3 Hours**

**(10 x 10 = 100 marks)**

Department Of Pathology

Entrustable Professional Activities Assessment Form MD Pathology Residents

Name of the Resident:

UNI No:

#### **Levels of competence:**

- ❖ Level I: Knowledge only; can observe
- ❖ Level II(A): Can assist properly
- ❖ Level II(B): Can do under strict supervision
- ❖ Level III: Can do under loose supervision (Entrustability decision to be made based on milestones)
- ❖ Level IV: Can do independently
- ❖ Level V: Has expertise to teach others

### First year of the residency

EPAs		On the day joining	After 1 month	1st half		2nd half	
		Resident	Resident	Faculty	Resident	Faculty	Resident
1	Should be able to perform gross examination and sampling of surgical pathology specimens						
2	Should be able to interpret gross and microscopic histomorphological alterations in tissue.						
3	Should be able to correlate histomorphological alterations with relevant clinical, operative and radiological data and arrive at the diagnosis.						
4	Should be able to process tissue bits						
5	Should be able to take sections using microtome						
6	Should be able to perform H and E stain						
7	Should be able to decide appropriate special stain and perform it whenever necessary						
8	Should be able to decide appropriate immunohistochemical markers, perform and interpret						
9	Should be able to interpret frozen sections Should be familiar with indications and interpretation of ancillary techniques like Karyotyping, FISH, PCR, electron microscopy						
10	Should be able to interpret and diagnose cytological smears						
11	Should be able to interpret cytology of sputum, bronchial washings, serous effusions, etc.						
12	Should be able to prepare, stain and interpret peripheral smear						
13	Should be able to interpret bone marrow smears						
14	Should be able to perform and interpret routine haematological investigations like haemoglobin, TLC, DLC, ESR PCV, Blood indices						
15	Should be able to perform and interpret special investigations like Reticulocyte count, Sickling test, Osmotic fragility test, haemoglobin electrophoresis, Fetal Haemoglobin, etc.						
16	Should be able to plan investigations in a clinical case						
17	Should be able to perform and interpret Urine Examination						
18	Should be able to perform and interpret CSF, Pleural Fluid, Peritoneal Fluid, Synovial fluid examination.						
20	Should be able to perform and interpret semen analysis.						
21	Should be able to perform urgent investigations like CSF, Platelet count during emergency duties						

22	Should demonstrate familiarity with in laboratory investigations in Microbiology and biochemistry						
23	Should be able to plan and execute internal quality control programme for laboratory						
24	Should be able to participate in external quality control programme						
25	Should be able to perform blood grouping and Rh typing						
26	Should be able to perform cross-matching						
27	Should be able to perform ELISA for infectious disease, Coomb's test						
28	Should be able to separate blood components and have knowledge of indications of using blood components						
29	Should have knowledge of criteria of selection of blood donors						
30	Should be able to manage adverse donor reactions						
31	Should be familiar with FDA regulations for blood bank						
32	Should be able to investigate a case of mismatched blood transfusion						
33	Should be able to participate in multidisciplinary meetings like tumor boards, CPCs, Dermatopathological conferences						
34	Should be able to present oral and poster presentations, write paper in conferences						
35	Should be able to teach pathology to undergraduates (MBBS), and allied health sciences like BDS, BSc (Nursing), BSc (MLT), BSc (Radiology), etc.						
36	Should be able to supervise technicians						
37	Should have thorough knowledge of Biomedical Waste disposal.						
38	Should be familiar with norms and requirements of NABL,NABH Accreditation						
39	Should be able to carry out systematic research work for dissertation						
40	Should be able to perform as a team leader						
	Signature of the resident						
	Signature faculty						
	Signature of the HOD						

## Second year of the residency

EPAs		On the day joining	After 1 month	1st half	
		Resident	Faculty	Resident	Faculty
1	Should be able to perform gross examination and sampling of surgical pathology specimens				
2	Should be able to interpret gross and microscopic histomorphological alterations in tissue				
3	Should be able to correlate histomorphological alterations with relevant clinical, operative and radiological data and arrive at the diagnosis.				
4	Should be able to process tissue bits				
5	Should be able to take sections using microtome				
6	Should be able to perform H and E stain				
7	Should be able to decide appropriate special stain and perform it whenever necessary				
8	Should be able to decide appropriate				
9	immunohistochemical markers, perform and interpret				
10	Should be able to interpret frozen sections				
11	Should be familiar with indications and interpretation of ancillary techniques like Karyotyping, FISH, PCR, electron microscopy				
12	Should be able to interpret and diagnose cytological smears				
13	Should be able to interpret cytology of sputum, bronchial washings, serous effusions, etc.				
14	Should be able to prepare, stain and interpret peripheral smear				
15	Should be able to interpret bone marrow smears				
16	Should be able to perform and interpret routine haematological investigations like haemoglobin, TLC, DLC, ESR PCV, Blood indices				
17	Should be able to perform and interpret special investigations like Retic count, Sickling test, Osmotic fragility test, haemoglobin electrophoresis, Fetal Haemoglobin, etc.				
18	Should be able to plan investigations in a clinical case				
19	Should be able to perform and interpret Urine Examination				
20	Should be able to perform and interpret CSF, Pleural Fluid, Peritoneal Fluid, Synovial fluid examination.				

21	Should be able to perform and interpret semen analysis.				
22	Should be able to perform urgent investigations like CSF, Platelet count during emergency duties.				
23	Should demonstrate familiarity with in laboratory investigations in Microbiology and biochemistry				
24	Should be able to plan and execute internal quality control programme for laboratory				
25	Should be able to participate in external quality control programme				
26	Should be able to perform blood grouping and Rh typing				
27	Should be able to perform cross-matching Should be able to perform ELISA for infectious disease, Coomb's test				
28	Should be able to separate blood components and have knowledge of indications of using blood components				
29	Should have knowledge of criteria of selection of blood donors				
30	Should be able to manage adverse donor reactions				
31	Should be familiar with FDA regulations for blood bank				
32	Should be able to investigate a case of mismatched blood transfusion				
33	Should be able to participate in multidisciplinary meetings like tumor boards, CPCs, Dermatopathological conferences				
34	Should be able to present oral and poster presentations, write paper in conferences				
35	Should be able to teach pathology to undergraduates (MBBS), and allied health sciences like BDS, BSc (Nursing), BSc (MLT), BSc (Radiology), etc.				
36	Should be able to supervise technicians				
37	Should have thorough knowledge of Biomedical Waste disposal.				
38	Should be familiar with norms and requirements of NABL, NABH Accreditation				
39	Should be able to carry out systematic research work for dissertation				
<b>Should be able to perform as a team leader</b>					
<b>Signature of the resident</b>					
<b>Signature faculty</b>					
<b>Signature of the HOD</b>					

**Annexure-2: Postgraduate Students Appraisal Form**

**3 Hours**

**(10 x 10 = 100 marks)**

**Department Of Pathology  
Entrustable Professional Activities Assessment Form MD Pathology Residents**

Name of the PG Student:

UNI No:

Period of Training FROM.....TO.....

Sl. NO	PARTICULARS	Not Satisfactory	Satisfactory	More Than Satisfactory	Remarks
		123	4    56	789	
1	Journal based / recent advances learning				
2	Patient based /Laboratory or Skill based learning				
3	Self directed learning and teaching				
4	Departmental and interdepartmental learning activity				
5	External and Outreach Activities / CMEs				
6	Thesis / Research work				
7	E-portfolio Maintenance				

Publications

Yes/ No

Remarks\* \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**\*REMARKS:** Any significant positive or negative attributes of a postgraduate student to be mentioned. For score less than 4 in any category, remediation must be suggested. Individual feedback to postgraduate student is strongly recommended.

**SIGNATURE OF ASSESSEE    SIGNATURE OF CONSULTANT    SIGNATURE OF HOD**

**Annexure 3: Multisource feedback**

**3 Hours**

**(10 x 10 = 100 marks)**

**Department Of Pathology  
Entrustable Professional Activities Assessment Form MD Pathology Residents**

**Feed back by Faculty  
EVALUATION SHEET FOR POSTGRADUATE CLINICAL WORK  
Department of Pathology**

(To be completed by respective Unit Head)

Name of the Resident: ..... UIN No.: .....

Name of the Faculty: ..... Date: .....

Sl. NO	Criteria to be assessed	Score		
		Below par (1)	At par (2)	Above par (3)
1	History taking and physical examination			
2	Regularity and punctuality			
3	Ability to identify patient's problems			
4	Patient management skills			
5	Procedural skills / range of clinical technical skills			
6	Self directed learning			
7	Communication skills			
8	Proper and complete documentation			
9	Relationship with peers			
10	Works constructively in the health care system			
		Total score:		
	General Comments:			
	Highlights in performance (strengths)			
	Possible suggested areas for improvement (weakness)			
	Signature:			

**Annexure 3 : Feedback by Peers**

**3 Hours**

**(10 x 10 = 100 marks)**

**Department Of Pathology  
EVALUATION SHEET FOR POSTGRADUATE  
(To be completed by Peer)**

Name of the Resident: ..... UIN No.: .....

Name of the Respondent: ..... Date: .....

Sl. NO	Criteria to be assessed	Score		
		Below par (1)	At par (2)	Above par (3)
1	Routinely screening the slides and grossing			
2	Prepare and attend the routine reporting			
3	Report despatch and Record maintenance			
4	Communicates and counsels effectively patients and patient's relatives			
5	Critically evaluates the laboratory data			
6	Communicates effectively with colleagues			
7	Communicates effectively with other health professionals			
8	Acknowledges gaps in personal knowledge and expertise, and frequently asks for feedback			
9	Regularity and punctuality of attendance			
10	Works constructively in the health care system			
		Total score:		
	General Comments:			
	Highlights in performance (strengths)			
	Possible suggested areas for improvement (weakness)			
	Signature:			

**Annexure 4: Work Place Based Assessment (WPBA)**

**SRI BALAJI VIDYAPEETH**

**Department of Pathology**

**EVALUATION SHEET FOR POSTGRADUATE (WPBA)**

Name of the Resident: ..... UIN No.: .....

Name of the Faculty: ..... Date: .....

Designation :.....

	Below expectation	Borderline	Meet expectation	Above expectation	Not observed
Technical skill					
Reporting skill					
Communication skill					
Laboratory judgement					
Professionalism					
Organisational efficiency					
Overall care					

Anything good:	Suggestions for improvement:
Agreed upon action:	
Signature of the resident	Signature of the Assessor

**Annexure 5: Feedback for Journal club**

**SRI BALAJI VIDYAPEETH**

**EVALUATION SHEET FOR POSTGRADUATE JOURNAL CLUB**

**Department of Pathology**

(To be marked individually by each faculty)

Name of the Resident: ..... UIN No.: .....

Name of the Respondent: ..... Date: .....

Sl. NO	Criteria to be assessed	Score		
		Below par (1)	At par (2)	Above par (3)
1	Relevance of article chosen			
2	Identifies the problem addressed in the paper			
3	Completeness of presentation			
4	Analyses and gives comments on methodology and statistics			
5	Brief summary of results			
6	Comparison of work with other published work			
7	Merits and demerits of the paper			
8	Summary and take home message			
9	Time management			
10	Overall performance – relevant answer to questions, attitude during presentation and confidence			
		Total score:		
	General Comments:			
	Highlights in performance (strengths)			
	Possible suggested areas for improvement (weakness)			
	Signature:			

**Annexure 6: Feedback for Seminar**

**SRI BALAJI VIDYAPEETH**

**EVALUATION SHEET FOR POSTGRADUATE SEMINAR**

**Department of Pathology**

(To be marked individually by each faculty)

Name of the Resident: ..... UIN No.: .....

Name of the Respondent: ..... Date: .....

Sl. NO	Criteria to be assessed	Score		
		Below par (1)	At par (2)	Above par (3)
1	Introduction of subject and its importance / Objectives			
2	Completeness of presentation			
3	Cogency of presentation			
4	Consulted all relevant literature			
5	Use of audio-visual aids			
6	Understanding of subject			
7	Summary and take home message			
8	Cites appropriate references / suggests further reading			
9	Time management			
10	Overall performance – relevant answers to questions, attitude during presentation and confidence			
		Total score:		
1	General Comments:			
2	Highlights in performance (strengths)			
3	Possible suggested areas for improvement (weakness)			
	Signature:			