COLLEGE OF PHYSICIANS AND SURGEONS PAKISTAN
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Examinations Department

NO. F.1-1/Exam-13/CPSP 367-D

October 30, 2013

NOTIFICATION

DETAILED RULES & REGULATIONS FOR INDUCTION OF TRAINEES IN SURGERY & ALLIED

In continuation of CPSP Notification No. CPSP/Secy/2013(20-A) dated September 24, 2013, this is notified for information of the accredited departments/ institutions and the eligible candidates seeking induction in the CPSP fellowship program in Surgery and Allied specialties, that the new scheme of induction and rotations will be effective from 1st January 2014 as under:

1. Induction shall be made in first year of the fellowship program by the accredited institutions under a CPSP approved supervisor in January/ July each year.
2. Candidates will be required to specify in the Registration Form of RTMC, whether they would pursue straight fellowship in General Surgery or would like to join group A or B after Intermediate Module (IMM).
3. The groups A and B will pursue fellowship training in one of the specialties included in the opted group after IMM. The disciplines included in groups A and B are:

Group A	Group B
1. Neurosurgery	1. Cardiovascular Surgery
2. Orthopaedics/ Trauma	2. Orthopaedics/ Trauma
3. Plastic Surgery	3. Paediatric Surgery
4. Urology	4. Thoracic Surgery

4. Each Accredited Unit comprising of at least a professor, an associate professor and an assistant professor who are CPSP approved supervisor, can induct a maximum of four trainees in General Surgery and four trainees who opt for allied specialties included in both groups A and B (i.e. a total of 8 trainees in a unit).
5. The 18 months of IMM training for all groups shall be same and will consist of:
   - 12 months training in Principles and Practice of Surgery.
   - 03 months of mandatory rotation in General Surgery.
   - 03 months of mandatory rotation in Orthopaedics/ Trauma.
6. The trainees in groups A and B will complete three rotations of 02 months each in the three specialties included in the opted group except Orthopaedics/Trauma, which they would complete as mandatory rotation.
7. The trainees in straight fellowship in General Surgery shall do three rotations of 02 months each in any of the following specialties: Cardiovascular Surgery, Neurosurgery, Paediatric Surgery, Plastic Surgery, Thoracic Surgery and Urology.

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8. The trainees in General Surgery will be required to get their synopsis approved by the Research & Evaluation Department by the end of first year of training, whereas trainees in groups A or B will be required to do so in first year of the specialty training.

9. The first two years of training (IMM) would also include completion of all mandatory workshops.

10. After completion of first two years (IMM) training in Surgery and Allied specialties:
    - Four candidates who had opted for General Surgery shall continue their advance training in General Surgery.
    - Four candidates who had opted for group A or B shall be entitled to pursue further fellowship training in a specialty of the opted group. However, induction into specialty training will depend upon the availability of training position in accredited institution(s).

11. Choices made at the outset and subsequently shall be final and changeover to another group or specialty at any stage will not be allowed.

12. The IMM examination is a midway assessment and has two MCQ papers with 100 MCQs of Single Best type in each paper. The format of IMM Surgery examination under the new scheme will be:
    - Paper I will be common for all trainees and shall cover the course content comprising Principles and Practice of Surgery.
    - Paper II will also be common for all trainees and shall consist of two sections.

      Section I will be mandatory for all trainees and will consist of 40 MCQs in two blocks of General Surgery and Orthopaedics /Trauma.

      Section II will have 120 MCQs, in blocks of six specialties with 20 MCQs in each block. Candidates will be required to attempt any three blocks of specialties in which they have undergone rotation (i.e. 60 MCQs from this section).
    - TOACS shall be same for all trainees and shall be based on core competencies covering basic clinical and life supporting skills, as well as procedural and communication skills.

Dr Muhammad Sharif
Chief Controller of Examinations

CC:

1. P.S to the President, CPSP
2. CPSP Councilors
3. Secretary, CPSP, Karachi
4. Registrar, CPSP, Karachi
5. Executive Officer, RTMC, CPSP Karachi
6. Director, REU, CPSP, Karachi

INTERMEDIATE MODULE IN SURGERY & ALLIED

REQUIREMENTS FOR TRAINING & EXAMINATION

2019

COLLEGE OF PHYSICIANS AND SURGEONS PAKISTAN

THIS IS AN EVOLVING DOCUMENT

The College of Physicians and Surgeons Pakistan would appreciate any criticism, suggestions, advice from the readers and users of this document. Comments may be sent in writing or by e-mail to the CPSP at:

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ABOUT THE COLLEGE

The College was established in 1962 through an ordinance of the Federal Government. The objectives/functions of the College include promoting specialist practice of Medicine, Obstetrics & Gynaecology, Surgery, Dentistry, and other specialties by securing improvement of teaching and training, arranging postgraduate medical, surgical and other specialists training, providing opportunities for research, holding and conducting examinations for awarding College diplomas and admission to the Fellowship of the College.

Since its inception, the College has taken great strides in improving postgraduate medical and dental education in Pakistan. Competency based structured Residency Programs have now been developed, along with criteria for accreditation of training institutions, and for the appointment of supervisors and examiners. The format of examinations has evolved over the years to achieve greater objectivity and reliability in methods of assessment. There cognition of the standards of College qualifications nationally and internationally, particularly of its Fellowship, has enormously increased the number of residents, and consequently the number of training institutions and the supervisors. The rapid increase in knowledge base of medical sciences and consequent emergence of new subspecialties have gradually increased the number of CPSP fellowship disciplines to sixty nine.

After completing two years of core training during IMM, the residents are allowed to proceed to the advance phase of FCPS training in the specific specialty of choice for 2-3 years.

However, it is mandatory to qualify IMM examination before taking the FCPS-II exit examination. The work performed by the resident is to be recorded in the e-log book on daily basis. The purpose of the e-log is to ensure that the entries are made on a regular basis and to avoid belated and fabricated entries. It will hence promote accuracy, authenticity and vigilance on the part of residents and the supervisors.

The average number of candidates taking CPSP examinations each year around 23,000. The College conducts examinations for FCPS-I (11 groups of disciplines), IMM, FCPS II (74 disciplines), MCPS (22 disciplines), including MCPS in HPE and MCPS in HCSM. A large number of Fellows and senior medical teachers from within the country and overseas are involved at various levels of examinations of the College.

The College, in its endeavor to decrease inter-rater variability and increase fairness and transparency, is using TOACS (Task Oriented Assessment of Clinical Skills) in IMM and FCPS-II Clinical examinations. Inclusion of foreign examiners adds to the credibility of its qualifications at an international level. It is important to note that in the overall scenario of health delivery over 85% of the total functioning and registered health care specialists of the country have been provided by the CPSP. To coordinate training and examination, and provide assistance to the candidates stationed in cities other than Karachi, the College has established 14 Regional Centers (including five Provincial Headquarter Centers) in the country. The five Provincial Headquarter Centers, in addition to organizing the capacity building workshops/short courses also have facilities of libraries, I.T, and evaluation of synopses and dissertations along with providing guidance to the candidates in conducting their research work. The training towards Fellowship can be undertaken in more than 229 accredited medical institutions throughout the country and 69 accredited institutions abroad. The total number of residents in these institutions is over 23,927, who are completing residency programs with around 3,708 supervisors. These continuous efforts of the College have even more importantly developed a credible system of postgraduate medical education for the country. The College strives to make its courses and training programs 'evidence' and needs 'based' so as to meet international standards as well as to cater to the specialist healthcare needs not only for this country but also for the entire region.

Prof. Zafar Ullah Chaudhry
President
College of Physicians and Surgeons Pakistan

INTERMEDIATE MODULE

To ensure better training, CPSP introduced an Intermediate Module Examination in several disciplines in 2001. This mid-training assessment strengthens the monitoring and in-training assessment systems by providing residents with an estimate of mid-training competence. It also serves as a diagnostic tool for residents and supervisors, provides a curricular link between basic and advanced training, and an opportunity for sampling a wider domain of knowledge and skills.

Vide Notifications No. 6-1 / Exam-04 / CPS / 1438 S and R, the Intermediate Module (IMM) examination is mandatory eligibility requirement for all FCPS II examinations as from September 2007 onwards. Residents are required to complete two years training in Surgery attend all mandatory workshops and take the Intermediate Module (IMM) examination.

In case of failure in Intermediate Module examination, the residents are permitted to continue their training in the chosen specialty but must pass the Intermediate Module examination prior to appearing in the final FCPS II examination.

REGULATIONS FOR TRAINING AND EXAMINATION

GENERAL REGULATIONS

Candidate will be admitted to the examination in the name (surname and other names) as given in the MBBS degree. CPSP will not entertain any application for change of name on the basis of marriage/ divorce / deed.

REGISTRATION AND SUPERVISION

All training must be supervised, and residents are required to register with the Registration and Research Cell (R&RC), formerly Registration and Research Cell (R&RC) within 30 days of starting their training for Intermediate Module. In case of delay in registration, the start of training will be considered from the date of receipt of application by the R&RC. Registration forms are available in R&RC and in the regional centers. They can also be downloaded from the CPSP website. Training is compulsorily supervised by an approved supervisor who is a CPSP fellow or a specialist with relevant postgraduate qualifications registered at the R&RC. The residents are not allowed to work simultaneously in any other department/ institutions for financial benefit and/or for other academic qualifications.

APPROVED TRAINING CENTRES

Training must be undertaken in units, departments and institutions approved by the College. A current list of approved institutions is available from the College and its regional centres as well as on the College website: www.cpsp.edu.pk

INDUCTION

As per, CPSP Notification No. F.1-1 / Exam-13 / CPSP 367-D dated October 30, 2013:

Candidates are required to specify at the time of registration, whether they will pursue straight fellowship in Surgery or would like to join group A or B during Intermediate Module (IMM). The scheme of Group A and Group B is given below:

GROUP A

- Neurosurgery
- Orthopaedics/ Trauma
- Plastic Surgery
- Urology

GROUP B

- Cardiovascular Surgery
- Orthopaedics/ Trauma
- Paediatric Surgery
- Thoracic Surgery

Candidates will be eligible to pursue Post-IMM (FCPS II) training in any of the specialty of the opted group(A/B), subject to availability of residency slot in an accredited institution.
No change of group is allowed after induction.

DURATION

The duration of training for the Intermediate Module (IMM) is two years; and residents become eligible to appear in Intermediate Module examination upon completion of IMM training

ROTATIONS

- 03 months of rotation in Orthopaedics/Trauma is mandatory for all residents (Surgery, Group A & Group B)
- The residents in straight fellowship in Surgery shall do three rotations of 02months each in any of the following specialties: Cardiovascular Surgery, Neurosurgery, Paediatric Surgery, Plastic Surgery, Thoracic Surgery and Urology.
- The residents in groups A and B will complete rotations of 02 months each in the three specialties included in the opted group except Orthopaedics/Trauma, which they would complete as mandatory rotation.

COMPONENTS OF TRAINING

Mandatory Workshops
It is mandatory for all Intermediate Module residents to attend following CPSP certified workshops during the two years of Intermediate Module training:

1. Introduction to Computer and Internet
2. Research Methodology and Dissertation Writing
3. Primary Surgical Skills
4. Communication Skills
5. Basic Life Support (BLS) Course

Any other workshop/s as may be introduced by CPSP.

NOTE: 1) The workshops are conducted by the Department of Medical Education and the candidates are advised to get registered online. The BLS course is conducted by the Advanced Skills Department (ASD) and the registration form is to be submitted with the ASD separately.

2) No candidate will be allowed to appear in IMM examination without attending the abovementioned workshops and BLS course.

E-logbook
The CPSP council has made e-logbook system mandatory for residents of all residency programs inducted from July 2011. Upon registration with R&RC each resident is allotted a registration number and a password to log on to the e-logbook on the CPSP website. The resident is required to enter all work performed and the academic activities undertaken in the logbook on daily basis. The concerned supervisor is required to verify the entries made by the resident. This system ensures timely entries by the resident and prompt verification by the supervisor. It also helps in monitoring the progress of residents and vigilance of supervisors.

Workplace Based Assessment (WBPA)

Workplace based assessment tools like Mini-CEX and DOPS are being used by CPSP for formative assessment. The Faculty of Surgery has identified areas of Mini-CEX and DOPS for each quarter of training. Supervisors and residents are advised to arrange and complete WPBA assignments according to the timeline mentioned in the competency tables (page 27 onwards in this curriculum), by uploading the respective Performa at the end of each quarter.

MINI-CEX		
HISTORY TAKING	DEMONSTRATE THE ART OF HISTORY TAKING IN SURGICAL PRACTICE	1ST QUARTER
GENERAL PHYSICAL EXAMINATION	PERFORMS GENERAL PHYSICAL EXAMINATION SYSTEMATICALLY	2ND QUARTER
ABDOMINAL EXAMINATION	PERFORMS ABDOMINAL EXAMINATIONS FOLLOWING STANDARD GUIDELINES	3RD QUARTER
LUMP EXAMINATION	DEMONSTRATE CORRECT STEPS OF EXAMINATION OF A LUMP IN A REAL PATIENT	4TH QUARTER
CERVICAL LYMPH NODE EXAMINATION	PERFORMS CERVICAL LYMPH NODES EXAMINATION CORRECTLY IN A REAL PATIENT	5TH QUARTER
HERNIA EXAMINATION	APPLIES CORRECT CLINICAL METHODS IN THE EXAMINATION OF HERNIA IN A REAL PATIENT	6TH QUARTER
DOPS		
SKIN SUTURING	DEMONSTRATE SKILLS FOR SKIN SUTURING IN A REAL PATIENT	1ST QUARTER
TRU-CUT BIOPSY	PERFORMS TRU-CUT BIOPSY IN A REAL PATIENT SAFELY	2ND QUARTER
CVP LINE PLACEMENT	PERFORMS CVP LINE INSERTION IN A REAL PATIENT SAFELY	3RD QUARTER
CHEST INTUBATION	PERFORMS CHEST INTUBATION IN A REAL PATIENT SAFELY	4TH QUARTER
LUMP EXCISION	PERFORMS EXCISION OF LUMP IN A REAL PATIENT SAFELY	5TH QUARTER
INCISION AND DRAINAGE OF AN ABSCESS	PERFORMS INCISION AND DRAINAGE IN A REAL PATIENT CORRECTLY AND SAFELY	6TH QUARTER

Research (Dissertation / Two Papers)
One of the training requirements for fellowship residents is a dissertation or two research papers on a topic related to the field of specialization. For residents of General Surgery the synopsis of dissertation or research papers must be submitted to Research and Evaluation Unit (REU) in the first year of the Intermediate Module. Residents going to subspecialty (Group A&B) must submit the synopsis in first year of training of the subspecialty (i.e. 3rd year of FCPS training).

Training Progression
Training should incorporate the principle of gradually increasing responsibility, and provide each resident with a sufficient scope, volume and variety of experience in a range of settings that include inpatients, outpatients, emergency and intensive care.

Instructional Methodology
Teaching occurs using several methods that range from formal didactic lectures to planned clinical experiences. The learning domains include knowledge, skills, attitudes and practices relevant to the discipline. College of Physicians and Surgeons Pakistan has developed its own competency model as follows.

CURRICULUM: AIMS AND OBJECTIVES

The aim of the residency training programme is to produce specialists in the field who have attained the required CPSP competencies. By the end of the residency programme, the graduates will be able to:

- Take appropriate histories
- Demonstrate proficiency in the requisite physical examinations
- Justify the ordering and interpretation of tests and investigations
- Appropriately diagnose, and rule in and rule out contending conditions
- Manage the problem in a cost effective manner
- Apply the requisite knowledge and skills to think critically and solve problems
- Be an effective team player, leading the team if necessary
- Communicate effectively with, for example
    - Patients and their attendants with empathy and compassion, in interviewing, counseling, breaking bad news, behavioural modification and shared decision-making, recognizing the impact of the condition on the patients and their families
    - seniors, peers, juniors, learners and other health professionals
- Demonstrate risk analysis and emphasis on prevention
- Ensure patient safety
- Manage emergencies related to the specialty
- Present well in the clinics, rounds and conferences
- Document concise and accurate histories, prescriptions, progress notes, discharge summaries and referrals
- Keep up to date and practice evidence based medicine
- Demonstrate putting patients first
- Demonstrate Honesty, integrity and timeliness (punctuality and task completion)

- Maintain confidentiality, patient autonomy, take appropriate consent and do no harm
- Consults with colleagues and refers as necessary
- Demonstrates effective teaching and mentoring skills for juniors and for other members of the health care teams
- Exhibit Advocacy for their patients, practice (service/ department), profession (discipline/specialty) and population-based problems related to their specialty
- Initiate/participate in/expand clinical governance and clinical audit
- Recognize and resolve stress in self and others
- Demonstrate a sound research study, and the use of research in improving clinical practice
- Demonstrate willingness to accept critique constructively
- Demonstrate willingness and the ability to adapt and change as per changing circumstances and changing technology
- Demonstrate conflict resolution, management skills and leadership
- Maintain the highest standards of practice

The competencies outlined above have been reflected in the Competency model of the CPSP as depicted below:

CPSP COMPETENCY MODEL

College has moved towards competency based medical education and developed its own outcomes / competency model.

With patient or population care as the pivotal center, the inner leaves of the model represent the five major competencies directly related to patient care, while the three competencies in the outer circle are mega-competencies related to patient care and also incorporate education, professionalism, leadership, advocacy and population health.

By the end of the Residency Programme, residents are expected to acquire these competencies and their constituent learning outcomes, and provide promotive, preventive, curative and rehabilitative patient-centered (or population-centered) care.

Inner Leaves:

1. Knowledge and Critical Thinking
2. Technical Skills
3. Communication Skills
4. Teamwork
5. Research

Outer Leaves:

6. Professionalism
7. Advocacy
8. Pedagogy

1. Knowledge and Critical Thinking

- Demonstrate application of wide and current readings to critical thinking and problem solving.
- Relate the alteration of body function to the presenting condition.
- Interpret and integrate history and examination findings to arrive at an appropriate provisional and credible differential diagnoses.
- Sequentially order, justify and interpret appropriate investigations;
- Apply knowledge and reasoning skills to
    - Analyze data for problem identification and to rule in and rule out contending conditions
    - Synthesize and evaluate solutions for decision-making in solving familiar and less familiar problems based on

best current evidence.
- Prioritize different problems within a time frame.
- Select, outline and provide, with evidence-based justifications, appropriate pharmacological and non-pharmacological management strategies
- Assess new medical knowledge and apply it to resolve patient problems (Evidence-based practice).
- Apply quality assurance procedures in daily work. (Pro fessionalism)
- Demonstrate shared-decision-making with the patient or family;
- Provide cost-effective care while ordering investigations
  and in management
- Use resources appropriately
- Demonstrate awareness of bio-psycho-social factors in assessment and management of a patient.

2. Technical Skills

- Obtain an accurate history with sensitivity;
- Perform an accurate physical and mental state examination, even in patients with complex health problems involving multiple systems;
- Demonstrate International Patient Safety Goals (IPSG)
- Demonstrate competent performance of all required technical skills and procedures in their specialty, including:
  - Obtaining informed consent
  - Preoperative planning
  - Pre-interventional care and preparation
  - Intra-Intervention technique including exposure and closure, global and task specific items, and communication and team skills
  - Post-interventional care
  - Follow-up Care

3. Communication Skills

- Written Communication Skills
  - Maintain clear, concise, accurate and updated medical records.
  - Write clear, focused, evidence-based and logical management plans and discharge summaries.
  - Write respectful, clear and focused letters and referrals to other colleagues.

- Verbal Communication Skills: Demonstrate
  - Effective interpersonal communication skills: clear, considerate and sensitive towards patients, their relatives, other health professionals and the public, and towards students.
  - Non-verbal communication skills:
  - Empathy and respect towards patients and their relatives.
  - Effective counseling of the patient and the family with cultural sensitivity: explain options, educate them and promote joint decision-making.
  - Appropriate verbal and body language on the campus and all work situations including seminars, bedside sessions, outpatient sessions and others.
  - Respect and tolerance for all health care professionals, including peers, juniors and seniors.
  - Clear, focused and logical presentation of cases.

4. Teamwork

- Demonstrate constructive team-communication skills.
- Facilitate collaborative group interaction as a team member to build strong teams demonstrating respect, tolerance and interdependence.
- Support other team members to grow.
- Demonstrate willingness to assume responsibility and leadership as needed.

5. Research

- Interpret and use results of various research studies (critical appraisal).
- Conduct a research study individually or in a group by using appropriate
- Selection of research question(s) and objectives
- Research design and statistical methods to answer the research question.
- Ethical and R&RC approval of the synopsis
- Demonstrate competence in academic writing by writing an appropriate dissertation and/or publishing research article(s) as a step towards resolving issues or concerns in their specialty.
- Guide others in conducting research by advising about research methodology including study designs and statistical methods.
- Demonstrate clear, focused and logical presentations of their research.

The outer leaves of the model consist of three mega competencies and each of these consist of multiple elements.

6. Professionalism
7. Pedagogy
8. Advocacy

6. Professionalism, Ethics and Leadership: The resident should be able to:

Professionalism

- Demonstrate the highest level of personal integrity: honesty, punctuality, regularity, timely task completion.
- Deal with all patients in a non-discriminatory and prejudice- free manner, demonstrating the same level of care for every human being irrespective of gender, age, ethnic background, culture, socioeconomic status and religion.
- Establish a trusting relationship with patients, their relatives and care-givers.
- Deal with all patients with honesty, empathy and compassion, putting patients' needs first (altruism)

- Facilitate transfer of information important for promotion of health, prevention and management of disease.
- Encourage questioning by the patient and be receptive to feedback.
- Pursue self-directed and life-long learning. Keep abreast of medical literature and assess new knowledge and apply it to resolve patient problems.
- Know one's limitations and ask for help as needed from colleagues, consultations or referrals.
- Apply quality assurance procedures for improvement in daily work.
- Be a role model for others

Ethics

- Maintain patient autonomy by demonstrating shared-decision-making with the patient and/or family.
- Obtain informed consent, maintain patient confidentiality and do no harm.
- Provide cost-effective care while ordering investigations and in management and use resources appropriately.

Leadership

- Demonstrate accountability for their decisions and actions, and that of their team.
- Demonstrate willingness to assume leadership role(s) when needed in given situations or events (rush call/code).
- Change and bring about change as necessary, as a leader or supportive leader.

7. Pedagogy

Should be able to demonstrate competence in teaching skills:

- Effective clinical/community-based teaching
- Some evidence of acquisition of theory regarding learning and education
- Practice some of the best teaching methods.

8. Advocacy

Advocacy is needed at multiple levels

- Advocacy for the Patient:
  - Doctors and nurses are the advocates of the patients, otherwise patients are likely to be lost in the system. All care should be timely, putting patients first.

- Advocacy for the Practice
  - Working in a service or practice, doctors must highlight limitations and issues.
  - They must identify solutions for the problems, and recommend and implement improvements for the practice(s) and institutional system(s).

- Advocacy for the Health System and Society
  - Know one's role in the Health System(s) and build strong referral systems.
  - Keep patient and community interests paramount, above one's own personal or professional interest.
  - Demonstrate advocacy for elimination of the social determinants of health.
  - Demonstrate advocacy for prevention of serious illnesses of their specialty/sub-specialty.

- For the Profession
  - Strive for building trust in the public for your profession.
  - Demonstrate improvement and enhancement of profession, specialty and sub-specialty.
  - Be conscientious gate-keepers of their profession, specialty and subspecialty.

In order to achieve the competencies of CPSP model, all curriculum components including instructional methods should be appropriately aligned to competency network.

The theoretical part of the curriculum represents the current body of knowledge necessary for practice. This can be imparted through lectures, grand teaching rounds, clinico-pathological meetings, morbidity/mortality review meetings, literature reviews and presentations, journal clubs, self directed learning, conferences and seminars.

Clinical learning is to be organized to provide appropriate expertise and competence necessary to evaluate and manage common clinical problems. Demonstration in outpatient and inpatient clinics, and procedural skills training on simulators, mannequins and patients are all practical training modalities.

CURRICULUM FOR BASIC SURGICAL TRAINING

GOALS

Upon completion of training in intermediate module in Surgery and allied, a resident must acquire the basic competencies in the principles and practice of surgery along with outcomes in the domains of knowledge, skills and attitude in order to:

- Provide appropriate and cost-effective care to patients at all levels.
- Promote health and prevent disease in patients, families and communities.
- Practice continuing professional development.
- For this purpose the resident must acquire:
  - Knowledge and expertise in clinical and procedural management of relevant diseases.
  - Basic surgical skills.
  - Effective clinical judgment and decision making in dealing with surgical problems using evidence based medicine.
- The coverage that each discipline receives below is not indicative of the relative importance placed on each discipline in the training program, or in the examination. These are guidelines and not comprehensive definitive lists. Only minimum levels of expected competence have been identified but sufficient scope, volume and variety of experience are desirable.

OUTCOMES

Upon completion of Intermediate Module in Surgery, the resident is able to:

- **Plan Preoperative care of surgical patients:**
  - Evaluate the metabolic response to surgery and infection
  - Assess fitness of patients for Surgery and Anesthesia
  - Assess risks involved in surgery
  - Test for respiratory, cardiac and renal functions
  - Manage patients with associated medical disorders

- **Manage post operative patients:**
  - Prescribe appropriate analgesics for postoperative pain control
  - Take appropriate measures to prevent postoperative complications
  - Diagnose postoperative complications
  - Manage postoperative complications effectively

- **Understand and demonstrate basic principles of surgical craft and theatre technology:**
  - Understand the principles of antisepsis, sterilization and concept of aseptic surgery
  - Demonstrate correct methods of scrubbing, gowning and gloving
  - Demonstrate use of common surgical instruments and appliances (suction, diathermy, retractors, general instruments)
  - Identify appropriate uses of suture and ligature materials
  - Understand basic principles of anastomosis
  - Demonstrate various techniques of biopsies: needle aspiration, trucut, open
  - Discuss the uses of tourniquet and precautions regarding its application
  - Discuss the principles involved in various types of anesthesia: Local, Regional and General Anesthesia
  - Monitor patient during anesthesia
  - Distinguish between analgesia and sedation

- **Understand the impact of infection in surgery:**
  - Describe surgically important micro-organisms
  - Identify sources of surgical infections and take effective measures for their prevention and control (asepsis and antibiotic usage)
  - Discuss body's response to infection
  - Use appropriate methods for carrying out surgery in hepatitis and HIV carriers

- **Demonstrate appropriate wound management:**
  - Classify surgical wounds
  - Describe pathophysiology and principles of wound healing
  - Describe principles and methods of wound debridement and closure
  - Describe mechanisms of scar and contracture formation
  - Manage the surgical wounds appropriately

- **Resolve nutritional problems in surgical patients:**
  - Assess nutritional status of patients
  - Prescribe nutritional values and components of different enteral and parenteral food preparations
  - Select different routes of nutrition administration based on indication/limitations

- **Correct fluid, acid base and electrolyte imbalances:**
  - Describe physiological processes contributing to fluid, acid base and electrolyte balance
  - Describe principles of fluid and electrolyte replacement
  - Discuss etiology and mechanism of shock
  - Assess and manage various types of hemorrhage
  - Manage shock
  - Describe indications and hazards of blood transfusion
  - Prescribe blood products and their substitutes

- **Manage critically ill patients:**
  - Diagnose and manage an unconscious patient
  - Operate monitoring devices and interpret their findings
  - Describe etiological factors for cardiac arrest
  - Resuscitate patients with cardiac arrest
  - Discuss various ionotropic agents
  - Identify features of brain death

- **Manage individual and mass Trauma by attaining following competencies:**
  - Understand Epidemiology of trauma
  - Understand and demonstrate initial assessment and resuscitation of a traumatised patient including:
    - Primary and secondary survey
    - Airway clearance and ventilation of patient requiring assisted respiration
    - Management of hemorrhage and shock
    - Application of Principles of triage
    - Management of:
      - Thoracic trauma
      - Abdominal and pelvic trauma
      - Head and spine trauma

  - Management of limb trauma including fractures, tendon and nerve injuries
    - Factors, etiology and principles of healing of soft tissues, tendon and bone
    - Immobilization and fixation
    - Fracture and its complications
    - Compartment syndrome, crush syndromes, fat embolism, fasciotomy
    - Neurological and vascular injuries in limb trauma

- Understand, assess and manage head injuries

- **Order and prepare for appropriate imaging according to their indications and limitations**
  - Plain and contrast X-rays, Ultrasound examination, CT Scan etc.

- **Communicate and collaborate effectively:**
  - Establish professional relationships with patients and families.
  - Discuss/counsel appropriate information with patients and families, and the health care team.
  - Consult effectively with other physicians and health care professionals.
  - Demonstrates appropriate respect for health care team
  - Demonstrates appropriate respect for seniors, juniors

- **Practice Teaching**
  - Demonstrate the ability to teach medical students, interns, other residents and allied health care staff.

- **Practice Professionalism:**
  - Deliver high standard quality care with integrity, honesty and compassion.
  - Exhibit appropriate interpersonal professional behavior.
  - Practice of medical profession according to established ethical norms.
  - Ethics EBM upto date

SYLLABUS

PRINCIPLES & PRACTICE OF SURGERY

- Surgical infections
- Principles of wound healing
- Hemorrhage & control / resuscitation
- Sterilization and disinfection
- Fluid & electrolytes
- Perioperative care (Pre-op, Post-op) Cirrhosis, DM, HTN, IHD, Renal failure, Jaundice)
- Blood & products & shock
- Antibiotics
- Clinical features & investigations of vascular disorders (CLl)
- Clinical features & investigations of lymphatic disorders
- Nutrition
- Specific infection tetanus, gas gangrene, TB, typhoid, Hep B,C, AIDS, synergistic growing etc.
- Tissue diagnosis
- Diagnostic imaging principles
- Principles of anastomosis & basic surgical skills
- Principles of Gl endoscopy
- Principles of MIS
- Principles of pain management
- Principles of L/A, regional G G/A
- Metabolic response to trauma
- Principles of stoma management (Fistula - (Poster) / short gut syndrome
- Palliative care - Principles
- Principles of surgical oncology (Lumps of skins and subcutaneous tissue)
- Principles of burn management
- Principles of surgery in extremes of ages (Pediatric & Geriatric)
- Principles of plastic surgery (grafts, flaps, scars, pressure sores, VAC dressing)
- Principles of thoracic surgery
- Indications, management & complications of tube thoracotomy, pneumothorax, chest pain)
- Chest physiotherapy

- Principles of urologic surgery
- Principles & management of acute & chronic urinary retention, hematuria, UTI
- Clinical features of BPH
- Abdominal wall and groin hernia
- Principles of transplant surgery
- Indications and principles of HDU & intensive care (CCRT)
- Principles & management of diabetic foot
- Hand infection
- Ethics
- Research
- Professionalism
- Principles of managing mass/multiple casualties including disaster & triage
- Postop complications
- Principles of electro surgery
- Salivary glands, stones and pleomorphic neoplasms

CRITICAL CARE

- Respiratory failure
- Principles of assisted ventilation
- Principles of invasive monitoring (CVP + Arterial)
- Inotropic support
- ARDS
- Principles of acute renal shutdown
- Sepsis
- DIC
- Brain death & end of life decision
- Acid base balance
- ABG analysis
- Nutrition in ICU (critically ill)
- Monitoring of critically ill patient in ICU
- Abdominal compartment
- MODS / MOSF
- Cardiac arrest

TRAUMA (INITIAL ASSESSMENT & RESUSCITATION ON ATLS PRINCIPLES} COMMON TO ALL

Orthopedic Bone Healing:

- General principles of fracture management
- Complications of fractures
- Compartment syndrome & Fasciotomy
- Crush syndrome, Fat embolism
- Nerve & tendon injury (principles of diagnosis & treatment)
- Principles & management of front distraction
- Mangled extremity
- Amputations
- Acute & chronic osteomyelitis
- Fracture neck of femur & pathological fractures
- Diagnosis of orthopedic disorders including imaging & tissue diagnosis
- Management of complicate fractures

Orthopaedic Trauma:

- Polytrauma
- Pelvic fracture
- Fracture neck of femur
- Supracondylar fracture
- Colle's fracture
- Tibial fracture
- Dislocation of hip
- Dislocation of shoulder
- Principles of management of spinal trauma

Neuro Trauma:
- Head injuries
- Traumatic int. cranial fracture
- ICP monitoring and raised ICP
- Spinal shock
- Neurogenic shock
- Diagnostic imaging
- Secondary brain injury
- Scalp wounds management

Skill:
- Burr hole / craniotomy
- Spinal immobilization
- Cervical spine immobilization
- ICP monitoring

Urogenital Trauma:
- Renal trauma
- Ureteric trauma
- Bladder trauma
- Urethral trauma

Cardiac Trauma:
- Penetrating
- Blunt cardiac injuries
- Pericardial tamponade

Vascular Trauma:
- Peripheral vascular injuries (investigations & management)

Skill:
- Vascular anastomosis
- Examination of peripheral vascular system (A+ veins)

Pediatric Trauma:

- Principles of management of pediatric trauma including anatomical considerations regarding
- Airway, thoracic, l/V fluid, resuscitation and routes

Skill:

- lntraosseous needle

Thoracic Trauma:

- Penetrating thoracic trauma
- Blank thoracic trauma
- Swabbing wounds
- Tension pneumothorax
- Massive hemothorax
- Diaphragmatic injuries
- Rib fractures
- Flail chest
- Indications and principles of emergency thoracotomy

Skill:

- Needle decompression
- Chest tube insertion
- Thoracotomy
- Occlusive dressing
- Abdominal trauma:
- Solid organ trauma
- Hallow visceral injuries
- Penetrating
- Blunt injury
- Diagnosis - DPL/CT/F - Mini-CEX
- Principles of damage control, resuscitation and surgery

PROCEDURAL COMPETENCIES

The clinical skills, which a surgeon must have are, varied and complex. A complete list of the same necessary for residents and trainers is given below. Some examples, which are a sub sample of the whole, follow. These are to be taken as guidelines rather than definitive requirements.Key for assessing competencies:

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

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

COMPETENCIES	FIRST YEAR																TOTAL NUMBER OF CASES
	03 MONTHS				06 MONTHS				09 MONTHS				12 MONTHS				
	LEVEL	CASES	MINICEX	DOPS	LEVEL	CASES	MINICEX	DOPS	LEVEL	CASES	MINICEX	DOPS	LEVEL	CASES	MINICEX	DOPS	
PATIENT MANAGEMENT																	
ELICIT A PERTINENT HISTORY	5	15			5	15			5	15			5	15			60
COMMUNICATE EFFECTIVELY WITH	3	15			3	15			4	15			4	15			60
PATIENTS, FAMILIES AND THE HEALTH TEAM (OBSERVED)									5	15			5	15			60
PERFORM A PHYSICAL EXAMINATION	5	15			5	15			4	15			4	15			60
ORDER APPROPRIATE INVESTIGATIONS	4	15			4	15			3	15			3	15			60
INTERPRET THE RESULTS OF INVESTIGATIONS	3	15			3	15			3	15			3	15			60
ASSESS FITNESS TO UNDERGO SURGERY	2	15			2	15			3	15			3	15			60
DECIDE AND IMPLEMENT APPROPRIATE TREATMENT	2	15			2	15			3 3	15 15			3 3	15 15			60 60
POSTOPERATIVE MANAGEMENT AND MONITORING	2	15			2	15			4	5			4	5			40
MAINTAIN ACCURATE AND APPROPRIATE RECORDS	3	15			3	15			3	5			3	5			40

COMPETENCIES	FIRST YEAR																TOTAL NUMBER OF CASES
	03 MONTHS				06 MONTHS				09 MONTHS				12 MONTHS				
	LEVEL	CASES	MINICEX	DOPS	LEVEL	CASES	MINICEX	DOPS	LEVEL	CASES	MINICEX	DOPS	LEVEL	CASES	MINICEX	DOPS	
PREOPERATIVE PREPARATION FOR VARIOUS SURGICAL PROCEDURES																	
USE OF ASEPTIC TECHNIQUES	2	5			2	5			4	8			4	8			26
POSITIONING OF PATIENT FOR DIAGNOSTICS AND OPERATIVE PROCEDURES (VARIETY)	2	5			2	5			3	3			3	3			16
IDENTIFICATION AND APPROPRIATE USE OF COMMON SURGICAL INSTRUMENTS, SUTURE MATERIALS AND APPLIANCES	2	8			3	8			3	3			3	3			22
GENERAL SURGERY PROCEDURES																	
CONTROLLING HEMORRHAGE	2	3			2	3			3	3			4	3			12
DEBRIDEMENT, WOUND EXCISION, CLOSURE/SUTURE OF WOUND (EXCLUDING REPAIR OF SPECIAL TISSUES LIKE NERVES AND TENDONS)	2	3			2	3			3	1			3	1			8
URETHERAL CATHETERIZATION	2	3			3	3			3	1			3	1			8
SUPRAPUBIC PUNCTURE	2	1			2	1			3	2			3	2			6
MEATOTOMY	2	1			2	1			4	4			4	4			10
CIRCUMCISION	2	2			2	2			3	3			3	3			10
NASOGASTRIC INTUBATION	3	4			3	4			3	3			3	3			14
VENESECTION	2	2			2	2			3	1			3	1			6
TUBE THROACOSTOMY	2	3			2	3			3	2			3	4			12
MANAGEMENT OF EMPYEMA	2	1			2	1			3	2			3	2			6
BIOPSY OF LYMPH NODES	2	2			2	2			3	2			3	2			8
BIOPSY OF SKIN LESIONS, SUBCUTANEOUS LUMPS OR SWELLINGS	2	2			2	2											
EXCISION OF SOFT TISSUE BENIGN TUMORS AND CYSTS (SURFACE SURGERY)	2	2			2	2			2	1			3	1			6
CRICOTHYROIDOTOMY	2	1			2	1			2	1			2	2			5
OPENING AND CLOSING OF ABDOMEN	1	1			1	1			3	3			3	3			8
PROCTOSCOPY AND INTERPRETATION OF FINDINGS	2	3			2	3			3	1			3	1			8

COMPETENCIES	FIRST YEAR																TOTAL NUMBER OF CASES
	03 MONTHS				06 MONTHS				12 MONTHS								
	LEVEL	CASES	MINICEX	DOPS	LEVEL	CASES	MINICEX	DOPS	LEVEL	CASES	MINICEX	DOPS	LEVEL	CASES	MINICEX	DOPS	
GENERAL SURGERY PROCEDURES																	
PROCTOSIGMOIDOSCOPY	2	1			2	1			3	1			3	1			4
FINE NEEDLE ASPIRATION (FNAC)	2	1			2	1			3	2			3	2			6
REMOVAL OF SKIN STITCHES/STAPLERS	2	2			3	2			3	3			3	3			10
REMOVAL OF DRAINS/NG TUBE/FOLEY`S	2	3			3	3			3	1			3	1			8
TRU CUT BIOPSY OD BODY SURFACE LESIONS	1	1			2	1			2	1			2	2			5
ABDOMINAL OPERATIONS																	
INGUINAL HERNIA REPAIR	1	1			2	1			2	1			2	1			4
RECTAL POLYP	1	1			2	1			2	2			2	2			6
SUPRAPUBIC CYSTOSTOMY	1	1			2	2			2	1			3	1			5
VESICOLITHOTOMY	1	1			2	1			2	2			2	3			7
HEMORRHOIDS, FISSURES, FISTULAE IN ANO	1	1			2	2			2	1			2	1			5
EXPLORATORY LAPAROTOMY	1	1			2	1			2	3			3	3			8
APPENDICECTOMY	1	1			2	2			2	1			2	1			5
CHOLECYSTECTOMY	1	1			2	1			2	1			2	1			4
ONCOLOGICAL SURGERY	1	1			2	1			2	1			2	1			4
LAPAROSCOPIC / ENDOSCOPIC SURGERY (PRINCIPLES AND INSTRUMENT HANDLING)	1	1			2	1											
BREAST OPERATIONS AND BENIGN LESIONS	1	1			2	1			2	1			3	1			4
STOMA FORMATION AND REVERSAL	1				2	1			2	1			2	1			3
VENTRAL HERNIA REPAIR	1	1			2	1			2	1			2	1			4
USE OF VENTILATORS	1	1			1	1			2	1			2	1			4

COMPETENCIES	FIRST YEAR																TOTAL NUMBER OF CASES
	03 MONTHS				06 MONTHS				09 MONTHS				12 MONTHS				
	LEVEL	CASES	MINICEX	DOPS	LEVEL	CASES	MINICEX	DOPS	LEVEL	CASES	MINICEX	DOPS	LEVEL	CASES	MINICEX	DOPS	
PERIOPERATIVE CARE																	
WOUND HEALING AND PERI-OPERATIVE COMPLICATION	1	2			2	2			3	2			3	2			8
CPR	1	1			2	1			2	2			3	2			6
CV LINES	1	1			1	1			2	1			2	1			4
FLUID AND ELECTROLYTE BALANCE	2	2			3	2			4	3			4	3			10
MONITORING DEVICES	1	2			2	2			2	3			2	3			10
INOTROPIC AGENTS	1	2			2	2			2	3			2	3			10
CARE OF UNCONSCIOUS PATIENT	1	1			2	1			2	1			3	1			4
REPLACEMENT OF NUTRITION	2	1			3	1			3	1			4	1			4
STOMA CARE	1	1			2	1			2	1			3	1			4
ANAESTHESIA																	
AIRWAY MAINTENANCE AND PASSING OF ENDOTRACHEAL TUBE	1	1			2	1			2	1			3	2			5
IPPR AND OTHER METHODS OF VENTILATION	1	1			2	1			2	1			3	1			4
LOCAL ANESTHESIA	1	1			2	1			2	1			3	2			5
REGIONAL ANESTHESIA	1	1			1	1			1	1			2	1			4
LUMBER PUNCTURE AND SPINAL ANESTHESIA	1	1			1	1			1	1			2	1			4
PRINCIPLES OF GENERAL ANESTHESIA	1	1			1	1			2	1			3	1			4

TOPICS OF MINICEX AND DOPS

COMPETENCIES	FIRST YEAR								TOTAL NUMBER OF CASES FIRST YEAR
	03 MONTHS		06 MONTHS		09 MONTHS		12 MONTHS		
	MINICEX	DOPS	MINICEX	DOPS	MINICEX	DOPS	MINICEX	DOPS	
TOPICS OF MINCEX									
HISTORY TAKING	1								
GENERAL PHYSICAL EXAMINATION			2						
ABDOMINAL EXAMINATION					3				
LUMP EXAMINATION							4		
CERVICAL LYMPH NODE EXAMINATION									
HERNIA EXAMINATION									
									4
TOPICS OF DOPs									
HISTORY TAKING		1							
GENERAL PHYSICAL EXAMINATION				2					
ABDOMINAL EXAMINATION						3			
LUMP EXAMINATION								4	
CERVICAL LYMPH NODE EXAMINATION									
HERNIA EXAMINATION									
									4

COMPETENCIES	SECOND YEAR								TOTAL NUMBER OF CASES
	15 MONTHS				18 MONTHS				
	LEVEL	CASES	MINICEX	DOPS	LEVEL	CASES	MINICEX	DOPS	
PATIENT MANAGEMENT									
ELICIT A PERTINENT HISTORY	5	20			5	20			40
COMMUNICATE EFFECTIVELY WITH	5	20			5	20			40
PATIENTS, FAMILIES AND THE HEALTH TEAM (OBSERVED)	5	20			5	20			40
PERFORM A PHYSICAL EXAMINATION	5	20			5	20			40
ORDER APPROPRIATE INVESTIGATIONS	4	20			4	20			40
INTERPRET THE RESULTS OF INVESTIGATIONS	4	20			4	20			40
ASSESS FITNESS TO UNDERGO SURGERY	4	20			4	20			40
DECIDE AND IMPLEMENT APPROPRIATE TREATMENT	4	20			4	20			40
POSTOPERATIVE MANAGEMENT AND MONITORING	4	20			4	20			40
MAINTAIN ACCURATE AND APPROPRIATE RECORDS	4	20			4	20			40

COMPETENCIES	SECOND YEAR								TOTAL NUMBER OF CASES
	15 MONTHS				18 MONTHS				
	LEVEL	CASES	MINICEX	DOPS	LEVEL	CASES	MINICEX	DOPS	
PREOPERATIVE PREPARATION FOR VARIOUS SURGICAL PROCEDURES									
USE OF ASEPTIC TECHNIQUES	4	10			4	10			20
POSITIONING OF PATIENT FOR DIAGNOSTICS AND OPERATIVE PROCEDURES (VARIETY)	4	10			4	10			20
IDENTIFICATION AND APPROPRIATE USE OF COMMON SURGICAL INSTRUMENTS, SUTURE MATERIALS AND APPLIANCES	4	15			4	15			30
GENERAL SURGERY PROCEDURES									
CONTROLLING HEMORRHAGE	4	5			4	5			10
DEBRIDEMENT, WOUND EXCISION, CLOSURE/SUTURE OF WOUND (EXCLUDING REPAIR OF SPECIAL TISSUES LIKE NERVES AND TENDONS)	5	5			5	5			10
URETHERAL CATHETERIZATION	5	5			5	5			10
SUPRAPUBIC PUNCTURE	4	2			5	2			4
MEATOTOMY	4	2			5	2			4
CIRCUMCISION	4	5			5	5			10
NASOGASTRIC INTUBATION	4	5			5	5			10
VENESECTION	4	6			5	6			12
TUBE THROACOSTOMY	4	6			5	6			12
MANAGEMENT OF EMPYEMA	3	2			4	2			4
BIOPSY OF LYMPH NODES	3	5			4	5			10
BIOPSY OF SKIN LESIONS, SUBCUTANEOUS LUMPS OR SWELLINGS	3	5			4	5			10
EXCISION OF SOFT TISSUE BENIGN TUMORS AND CYSTS (SURFACE SURGERY)	4	5			5	5			10
CRICOTHYROIDOTOMY	4	2			5	2			4
OPENING AND CLOSING OF ABDOMEN	3	5			4	4			10
PROCTOSCOPY AND INTERPRETATION OF FINDINGS	4	8			4	8			16
PROCTOSIGMOIDOSCOPY	4	5			4	5			10
FINE NEEDLE ASPIRATION (FNAC)	3	4			4	4			8
REMOVAL OF SKIN STITCHES/STAPLERS	4	4			5	4			8
REMOVAL OF DRAINS/NG TUBE/FOLEY`S	4	4			5	4			8
TRU CUT BIOPSY OD BODY SURFACE LESIONS	3	1			4	1			2

COMPETENCIES	SECOND YEAR								TOTAL NUMBER OF CASES
	15 MONTHS				18 MONTHS				
	LEVEL	CASES	MINICEX	DOPS	LEVEL	CASES	MINICEX	DOPS	
ABDOMINAL OPERATIONS									
INGUINAL HERNIA REPAIR	3	4			4	4			8
RECTAL POLYP	3	3			4	3			6
SUPRAPUBIC CYSTOSTOMY	4	4			4	4			8
VESICOLITHOTOMY	3	2			4	2			4
HEMORRHOIDS, FISSURES, FISTULAE IN ANO	3	8			4	8			16
EXPLORATORY LAPAROTOMY	3	3			3	5			8
APPENDICECTOMY	4	7			4	8			15
CHOLECYSTECTOMY	3	2			3	2			4
ONCOLOGICAL SURGERY	2	2			2	4			6
LAPAROSCOPIC / ENDOSCOPIC SURGERY (PRINCIPLES AND INSTRUMENT HANDLING)	2	3			3	3			6
BREAST OPERATIONS AND BENIGN LESIONS	3	4			4	4			8
STOMA FORMATION AND REVERSAL	2	1			3	1			2
VENTRAL HERNIA REPAIR	2	1			3	1			2
PERIOPERATIVE CARE									
USE OF VENTILATORS	2	2			3	2			4
WOUND HEALING AND PERI-OPERATIVE COMPLICATION	4	2			5	2			4
CPR	4	3			5	5			8
CV LINES	3	4			4	4			8
FLUID AND ELECTROLYTE BALANCE	5	5			5	5			10
MONITORING DEVICES	3	5			4	5			10
INOTROPIC AGENTS	3	5			4	5			10
CARE OF UNCONSCIOUS PATIENT	4	4			5	4			8
REPLACEMENT OF NUTRITION	4	5			4	8			13
STOMA CARE	3	1			4	1			2
ANAESTHESIA									
AIRWAY MAINTENANCE AND PASSING OF ENDOTRACHEAL TUBE	3	6			4	6			12
IPPR AND OTHER METHODS OF VENTILATION	3	2			5	2			4
LOCAL ANESTHESIA	4	6			5	6			12
REGIONAL ANESTHESIA	2	2			3	2			4
LUMBER PUNCTURE AND SPINAL ANESTHESIA	2	2			3	2			4
PRINCIPLES OF GENERAL ANESTHESIA	3	1			4	1			4

TOPICS OF MINICEX AND DOPS

COMPETENCIES	SECOND YEAR				TOTAL NUMBER OF CASES SECOND YEAR
	09 MONTHS		12 MONTHS		
	MINICEX	DOPS	MINICEX	DOPS	
TOPICS OF MINCEX					
HISTORY TAKING					
GENERAL PHYSICAL EXAMINATION					
ABDOMINAL EXAMINATION					
LUMP EXAMINATION					
CERVICAL LYMPH NODE EXAMINATION	5				
HERNIA EXAMINATION			6		
					2
TOPICS OF DOPs					
HISTORY TAKING					
GENERAL PHYSICAL EXAMINATION					
ABDOMINAL EXAMINATION					
LUMP EXAMINATION					
CERVICAL LYMPH NODE EXAMINATION		5			
HERNIA EXAMINATION				6	
					2

ROTATIONS	Level	Cases
ORTHOPAEDIC SURGERY (THREE MONTH ROTATION)		
CLOSED TREATMENT OF COMMON FRACTURES	1,2	5,5
OPEN REDUCTION, EXTERNAL FIXATION	1,2	5,5
OPERATION ON TENDONS (REPAIR AND LENGTHENING)	1,2	5,5,2
NERVE REPAIR	1,2	5,5,2
APPLICATION OF SPLINTS, POP CASTS AND SKIN TRACT	1,2,3	5,5,5,5
AMPUTATION	1,2,3	5,5,1
MANAGEMENT OF COMPOUND FRACTURES	1,2	5,5
FACIOTOMY	1,2,3	4,4,2
BONE BIOPSY	1,2	1,1
REMOVAL OF POP CAST	1,2,3	1,1, 1
DIAGNOSIS AND MANAGEMENT OF COMPARTMENT SYNDROME	1,2	1,1
NEUROSURGERY (TWO MONTH ROTATION)		
BURR HOLE FOR CEREBRAL DECOMPRESSION	1,2	5,5
INTRACRANIAL OPERATIONS	1,2	5,5
SPINAL DECOMPRESSION SURGERY	1,2	5,5,2
SPECIALIZED CARE OF HEAD INJURY	1,2,3	5,5,2
APPLICATION OF CERVICAL COLLAR	1,2,3	2,1,1
LOG ROLL OF PATIENT	1,2,3	1,1,1

ROTATIONS	Level	Cases
THORACIC SURGERY (TWO MONTH ROTATION)		
NEEDLE THORACOSTOMY	1,2,3	3,3,3
TUBE THORACOSTOMY	1,2,3	2,2,2
THORACOTOMY (OPENING & CLOSING)	1,2	1,1
DIAGNOSIS AND MANAGEMENT OF LIFE THREATENING CHEST TRAUMA (TENSION PNEUMOTHORAX, OPEN PNEUMOTHORAX, MASSIVE HAEMOTHORAX, FLAIL CHEST)	1,2,3	1,1,1
PLASTIC SURGERY (TWO MONTH ROTATION)		
BURN CARE	1,2,3	5,5
CLEFT LIP CONGENITAL DEFORMITIES	1,2	2,2
CLEFT PALATE CONGENITAL DEFORMITIES	1,2	2,2
REPAIR OF DEFORMITIES INCLUDING RELEASE OF CONTRACTURES	1,2	1,1
HYPOSPADIA REPAIR	1,2	1,1
FREE FLAPS	1,2	1,1

ROTATIONS	Level	Cases
PAEDIATRICS SURGERY (TWO MONTH ROTATION)		
CIRCUMCISION IN INFANTS	1,2,3	1,1,1,1
FLUID AND ELECTROLYTE REQUIREMENT	1,2,3	1,1,1
MANAGE PERIOPERATIVE HERNIAS	1,2,3	1,1,2
ORCHEDOPEXY	1,2	1,2
IMPERFORATE ANUS OPERATIONS	1,2	1,1
TRACHEA-ESOPHAGEAL FISTULA	1,2	1,1
RECTAL POLYPECTOMY	1,2,3	1,1,1
INGUINAL HERNIATOMY	1,2,3	1,1,1
UROLOGY (TWO MONTH ROTATION)		
MANAGEMENT OF ACUTE RETENTION OF URINE	1,2,3	1,1,1
VESICOLITHOTOMY	1,2,3	1,1,1
KIDNEY & URETER OPERATIONS	1,2	2,2
PERCUTANEOUS NEPHROLITHOTOMY (PCNL)	1,2	1,1
ESWL	1	2
URETEORENOSCOPY (URS)	1,2	1,1
TURP	1,2	1,1
TURBT	1,2	1,1
CYSTOSCOPY	1,2	1,1
INSERTION AND REMOVAL OF DJ STENT	1,2	1,1
URETHROPLASTY	1,2	1,1
VARICOCELECTOMY	1,2	1,1
HYDROCELECTOMY	1,2	1,1
ORCHIDECTOMY	1,2	1,1

ASSESSMENT

ELIGIBILITY REQUIREMENTS

For appearing in Intermediate Module examination a candidate should have:

- Passed FCPS I in Surgery and Allied Disciplines or granted exemption.
- Registered with the Registration & Research Cell (R&RC).
- Completed two years of training under an approved supervisor in an institution recognized by the CPSP. A certificate of completion of training must be submitted.
- Completed entries in e-logbook along with validation by the supervisor.
- Submitted certificates of attendance of mandatory workshops.
- Should have submitted synopsis of dissertation or abstract of research articles.

EXAMINATION SCHEDULE

- The Intermediate Module theory examination will be held twice a year.
- Theory examinations are held in various cities of the country usually at Abbottabad, Bahawalpur, Faisalabad, Hyderabad, Islamabad, Karachi, Nawabshah, Larkana, Lahore, Multan, Peshawar and Quetta centres. The College shall decide where to hold TOACS examinations depending on the number of candidates in a city and shall inform the candidates accordingly.
- English shall be the medium of all examinations for theory and TOACS.
- The College will notify of any change in the centres, the dates and format of the examination.
- A competent authority appointed by the College has the power to debar any candidate from any examination if it is satisfied that the candidate has indulged in unfair practices in College examination, misconduct or because of any other disciplinary reason.

EXAMINATION FEE

- Fee deposited for a particular examination shall not be carried over to the next examination in case of withdrawal, absence or exclusion.
- Applications along with the prescribed examination fee and required documents must be submitted by the last date notified for this purpose before each examination.
- The details of examination fee and fee for change of centre, subject, etc. shall be notified before each examination.

REFUND OF FEES

If after submitting an application for examination, a candidate decides not to appear, a written request for a refund must be submitted before the last date for withdrawal with the receipt of applications. In such cases a refund is admissible to the extent of 75% of fees only. No request for refund will be accepted after the closing date for receipt of applications for refund.

If an application is rejected by the CPSP, 75% of the examination fee will be refunded, the remaining 25% being retained as a processing charge. No refund will be made for fees paid for any other reason, e.g. late fee, change of centre/subject fee, etc.

FORMAT OF EXAMINATION

Intermediate Module examination consists of the following components:

Theory Examination:

It is a computer based examination consisting of two papers

Paper-I: 100 MCQs of Single Best Type
Paper-II: 100 MCQs of Single Best Type

Paper-I will be common for all trainees of IMM surgery and shall cover course content comprising of Principals and Practice of Surgery.

Guidelines for solving Paper-II

Paper-II consists of two parts, 'A' and 'B'. Part 'A' contains 40 questions and it is mandatory for all candidates to attempt this part.

Part 'B' consists of six blocks of sub-specialties containing 20 questions in each. Candidates of all groups (A, B & straight) are allowed to attempt any three blocks, irrespective of their rotations.

Sub-Specialties Included in Part-B

- Urology 20 MCQs
- Paediatric Surgery 20 MCQs
- Thoracic Surgery 20 MCQs
- Plastic Surgery 20 MCQs
- Neurosurgery 20 MCQs
- Cardiovascular Surgery 20 MCQs

In total, 100 questions will be attempted by each candidate, 40 from Part A and 60 from Part B.

Clinical Examination:

To test basic clinical skills, the clinical examination consists of: TOACS (Task Oriented Assessment of Clinical Skills) Only those candidates who qualify in the theory will be eligible to take the TOACS examination.

TOACS will comprise of 12 to 20 stations with a minimum duration of 6 minutes and change over time of one minute for the candidate to move from one station to the other.

TOACS shall be same for all residents and shall be based on core competencies covering basic clinical and procedural skills, life supporting skills and communication skills. It will also include one station on research synopsis and other on e-log. There will be two types of stations: static and interactive. On static stations the candidate will be presented with patient data, a clinical problem or a research study and will be asked to give written responses about the questions asked. At the interactive stations the candidate will have to demonstrate a competency, for example, taking history, performing a clinical examination, counseling. One examiner will be present at each interactive station and will either rate the performance of the candidate or ask questions testing reasoning and problem solving skills. College is encouraging to have all stations to be interactive and expects that the static stations will soon be phased out.

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DOPS & Mini-CEX General Surgery

MINI-CEX (Mini-Clinical Evaluation Exercise)

Topics to be covered

Evaluation of following topics spread over 16 quarters in 04 years. It shall include both history and relevant clinical examination. Associated attributes to be assessed are, clinical judgement, professionalism, counselling skills and organizational capaci**ty.**

Topics to be covered before IMM Examination (Minimum of 03 Mini-CEX)

1. **Breast.**
2. **Thyroid.**
3. **Abdominal masses.**
4. **External hernias.**
5. **Neck Masses.**

Topics to be covered before FCPS II Examination (Minimum of 01 Mini-CEX/quarter)

1. **Thyroid.**
2. **Breast.**
3. **Peripheral Arterial Disease.**
4. **External hernias.**
5. **Abdominal masses/obstructive jaundice/GI bleed/sub-acute intestinal obstruction.**
6. **Head & neck (parotid gland, Submandibular gland, neck nodes and masses).**
7. **Limb Swellings & ulcers.**
8. **Varicose veins**
9. **Testicular swellings.**

Schedule

1. Mini-CEX should be scheduled on at least 11 occasions for a trainee.
2. Minimum of 03 exercises before IMM examination and 01 exercise per quarter before FCPS II examination on any topic given in the list. Trainee should be consulted for the selection of the cases and a convenient time set at final discretion of the supervisor. As sessions depend on availability of the cases, hence where applicable cases may be repeated
3. Assessment should be entirely formative with feedback.
4. Result must be entered immediately by the assessor, on line, into e-log by the end of the quarter.
5. Supervisors and the trainees should be reminded in case of noncompliance with the time line.

A topic may be repeated with an adequate interval of 2/3 quarters. **In case of unsatisfactory performance supervisor may schedule a remedial exercise within the same or next quarter**. A session shall be of 20 minutes. 15 minutes for the performance and 5 minutes for the feedback.

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MINI CLINICAL EVALUATION EXERCISE (CEX)

Specialty: FCPS Surgery

Time Duration = 20 ففف (15 ففف assessment and 5 ففف feedback)

PLEASE COMPLETE THE QUESTIONNAIRE BY FILLING/CHECKING APPROPRIATE BOXES

Assessor: _____ Assessment Date: _____

Resident's Name: _____

Hospital Name: _____ R&RC Number: _____

Year of Residency: ▫ R1 ▫ R2 ▫ R3 ▫ R4

Quarter: ▫ 1st ▫ 2nd ▫ 3rd ▫ 4th

Setting: ▫ Ward ▫ Outdoor (Hospital/Community) Others: _____

Diagnosis of Patient: _____ Patient Age: _____ Sex: ____

Clinical Area: _____

Complexity of Case/ Procedure: ▫ Low/Easy ▫ Moderate/Average ▫ High/Difficult ▫ N/A

Focus of Clinical Encounters: ▫ History taking ▫ Physical Examination ▫Management

▫ Communication Skills ▫ Other

Please grade the following areas on the given scale:	Not Observed / Applicable	Below Expectations		Satisfactory	Above Expectation	Excellent
		1	2	3	4	5
Informed Consent of patient						
Interviewing Skills						
Systematic Progression						
Presentation of positive & significant negative findings						
Justification of actions						
Professionalism						
Organization/Efficiency						
Overall clinical competence						

Assessor's Satisfaction with Mini-CEX:

(Low) 1 2 3 4 5 (High)

Resident's Satisfaction with Mini-CEX:

(Low) 1 2 3 4 5 (High)

Strengths	Suggestions for Improvements

Encounter to be repeated ▫ YES ▫ NO

Signature

Rubrics Mini CEX

Competence	Descriptor of a satisfactory performance
History taking	Facilitates patient's narration ,effectively uses appropriate leads to obtain accurate history, appropriately comprehends verbal and non-verbal cues.
Clinical examination	Performs examination in logical sequence with satisfactory time management in the context of clinical problem. Gives clear and appropriate commands to the patient and is sensitive to patient's comfort
Professionalism	Acts in an ethical manner, exhibits respect, compassion, empathy, wins patient's trust and maintains confidentiality and legality
Clinical Judgement	Makes logical diagnosis, orders necessary investigations considering cost, availability and risks
Counselling skills	Communicates in audible simple language, patiently listens to the patient's concerns, reaffirms patient's understanding and summarises conclusion
Organisation/Efficiency	Efficient, time bound, prioritises logically.

Feedback

The purpose of the feedback is purely formative; to provide insights that help trainee make adjustments and enhance performance in future and ultimately for the final/exit summative assessment. Quarterly feedback will translate into inculcating a lifelong gradual change in attitudes, behaviours and process of learning.

Supervisor are requested to

1. Provide feedback during the session
2. Maintain privacy and confidentiality as much as possible
3. Keep in mind social and ethical implications
4. Use positive and encouraging communication strategies
5. Focus on precise performance and behaviour and not on person
6. Avoid derogatory comments and remarks
7. Encourage trainee's feedback on the self-performance and teaching programme in specific context.
8. Conclude , with mutual agreement on future adjustments and learning to improve performance in the task at hand

DOPS (Direct Observation of Procedural Skills)

Following topics shall be covered in 16 quarters spread over 04 years. Complexity of the procedures shall be enhanced close to end of the training.

Topics to be covered before IMM Examination (Minimum of 02 DOPS)

1. Suturing
2. Core/true cut biopsy
3. Endotracheal intubation
4. Basic laparoscopic skills e.g. port insertion

Topics to be covered before FCPS-II Examination (Minimum of 08 DOPS)

1. Fine Needle Aspiration Cytology
2. Suturing
3. Core/True Cut Biopsy
4. ABGS sampling
5. Incisional & excisional biopsy under local anaesthesia
6. CVP line .
7. Endotracheal intubation.
8. Excision ingrown toe nail under local anaesthesia
9. Basic laparoscopic skills (preferably on simulators where available)

Schedule

1. DOPS shall be scheduled on at least 10 occasions for a trainee preferably covering all of the given procedures
2. Minimum of 02 sessions before IMM examination and at least 01 session per quarter before FCPS II examination. That shall amount to a minimum of 10 DOPS .
3. Trainee shall be consulted for the selection of the cases and a convenient time set at the final discretion of the supervisor.
4. A procedure may be repeated with an interval of at least one quarter.
5. **In case of unsatisfactory performance a remedial may be scheduled during the same or next quarter**.
6. Assessment shall be entirely formative with feedback.
7. Result must be entered, immediately by the Assessor, on line into e-log within the quarter.
8. Supervisors and the trainees shall be reminded in case of noncompliance with the time line.
9. A session shall be of 20 minutes. 15 minutes for the performance and 5 minutes for the feedback

Rubrics DOPS

Competence Assessed	**Descriptor of a satisfactory performance**
Indications ,anatomy and steps	Adequately enumerates major indications of the procedure. Ably marks the important anatomical landmarks and performs the procedure observing major steps
Informed consent with explanation of the procedure and the complications	Takes informed consent in a simple and audible tone , adequately explains the salient features of the procedure and anticipated complications to the patient's satisfaction
Preparation of the procedure	Adheres to the recommended aseptic and scrubbing techniques
Use of anaesthesia, analgesia and sedation	Knows the dose and site of anaesthesia. Uses the recommended dosage, and route of analgesia and sedation when deemed necessary.
Use of instruments	Selects proper instruments at required points of the procedure and uses them in a correct manner.
Use of Accepted technique	Follows the recommended steps of the procedure in a controlled sequence and flow
Management of unaccepted events or seeks help	Vigilantly picks up unaccepted events , knows his ability and limitation, stops and seeks help in difficult situation/s
Post procedure instructions to the patients.	Gives and explains post procedure care /instructions to the patient . guides regarding hospital policy for minor post procedure issues
Professionalism	Acts in an ethical manner, exhibits respect, compassion, empathy, wins patient's trust and maintains confidentiality and legality

Feedback

The purpose of the feedback is purely formative; to provide insights that help trainee make adjustments and enhance performance in future and ultimately for the final/exit summative assessment. Quarterly feedback will translate into inculcating a lifelong gradual change in attitudes, behaviours and process of learning.

Supervisor are requested to

10. Provide feedback during the session
11. Maintain privacy and confidentiality as much as possible
12. Keep in mind social and ethical implications
13. Use positive and encouraging communication strategies
14. Focus on precise performance and behaviour and not on person
15. Avoid derogatory comments and remarks
16. Encourage trainee's feedback on the self-performance and teaching programme in specific context.
17. Conclude , with mutual agreement on future adjustments and learning to improve the task at hand

COLLEGE OF PHYSICIANS AND SURGEONS PAKISTAN

DIRECT OBSERVATION OF PROCEDURAL SKILLS (DOPS)

Specialty: FCPS Surgery

Time Duration = 20 mins (15 mins assessment and 5 mins feedback)

Assessor: _____ Assessment Date: _____

Resident's Name: _____

Hospital Name: _____ R&RC Number: _____

Year of Residency: □ R1 □ R2 □ R3 □ R4

Quarter: □ 1st □ 2nd □ 3rd □ 4th

Setting: □ O.T. □ Procedure Room Other: _____

Diagnosis of Patient: _____ Patient Age: _____ Sex: ____

Name of Procedure: _____

Complexity of Case/ Procedure: □ Low/Easy □ Moderate/Average □ High/Difficult □ N/A

Number of times procedure performed by Resident: _____

Please grade the following areas on the given scale:	Not Observed / Applicable	Below Expectations		Satisfactory	Above Expectation	Excellent
		1	2	3	4	5
Indications, anatomy & steps of procedure						
Informed consent, with explanation of procedure and complications						
Preparation for procedure						
Use of Anesthesia, Analgesia or sedation						
Observance of asepsis						
Safe use of instruments						
Use of accepted techniques						
Management of unexpected event (or seeks help)						
Post-procedure instructions to patient and staff						
Professionalism						
Overall ability to perform whole procedure						

Assessor's Satisfaction with DOP S:

(Low) 1 2 3 4 5 (High)

Resident's Satisfaction with DOP S:

(Low) 1 2 3 4 5 (High)

Strengths	Suggestions for Improvements

Encounter to be repeated □ YES □ NO

Signature