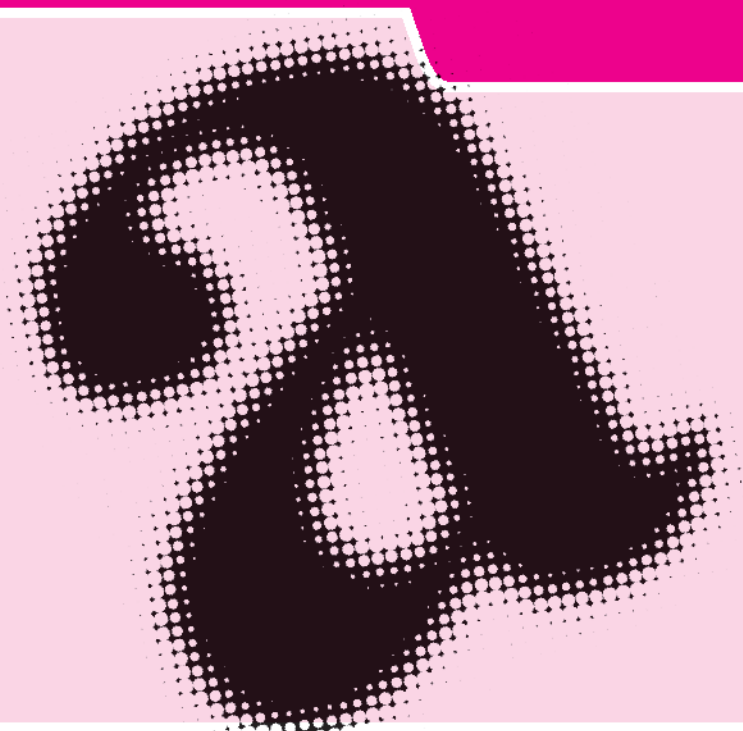


Training Program - FCPS

ANESTHESIOLOGY



College of Physicians and Surgeons Pakistan



2013

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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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Published: June, 2013

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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 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. The recognition of the standards of College qualifications nationally and internationally, particularly of its Fellowship, has enormously increased the number of trainees 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 trainees are allowed to proceed to the advanced phase of FCPS training in the specific specialty of choice for 2-3 years. However, it is mandatory to qualify IMM examinations before taking the FCPS-II exit examinations. The work performed by the trainee is to be recorded in the e-logbook 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 trainees and the supervisors.

The average number of candidates taking CPSP examinations each year is to a minimum of 25,000. The College conducts examinations for FCPS I (11 groups of disciplines), IMM, FCPS II (69 disciplines), MCPS (20 disciplines), including MCPS in HPE and also Diploma in Health Care System Management (DCPS-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 159 accredited medical institutions throughout the country and 44 accredited institutions abroad. The total number of trainees in these institutions is over 16000. 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 need '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

Training and Examinations Summary

The College lays down the training programs and holds examination for the award of Fellowship in the following disciplines:

Disciplines for 1st Fellowship

- | | |
|--------------------------|--|
| 1. Anatomy | 24. Neurosurgery |
| 2. Anesthesiology | 25. Nuclear Medicine |
| 3. Biochemistry | 26. Obstetrics and Gynaecology |
| 4. Cardiac Surgery | 27. Operative Dentistry |
| 5. Cardiology | 28. Ophthalmology |
| 6. Chemical pathology | 29. Oral & Maxillofacial Surgery |
| 7. Clinical Haematology | 30. Orthodontics |
| 8. Community Medicine | 31. Orthopedic Surgery |
| 9. Dermatology | 32. Otorhinolaryngology (ENT) |
| 10. Diagnostic Radiology | 33. Paediatric Surgery |
| 11. Emergency Medicine | 34. Paediatrics |
| 12. Family Medicine | 35. Periodontology |
| 13. Forensic Medicine | 36. Pharmacology |
| 14. Gastroenterology | 37. Physical Medicine & Rehabilitation |
| 15. General Medicine | 38. Physiology |
| 16. General Surgery | 39. Plastic Surgery |
| 17. Haematology | 40. Prosthodontics |
| 18. Histopathology | 41. Psychiatry |
| 19. Immunology | 42. Pulmonology |
| 20. Medical Oncology | 43. Radiotherapy |
| 21. Microbiology | 44. Thoracic Surgery |
| 22. Nephrology | 45. Urology |
| 23. Neurology | 46. Virology |

Disciplines for 2nd Fellowship

- | | |
|--|--|
| 1. Cardiothoracic Anesthesiology | 13. Paediatric Gastroenterology-
Hepatology and Nutrition |
| 2. Clinical Cardiac Electrophysiology | 14. Paediatric Haematology Oncology |
| 3. Community & Preventive Paediatrics | 15. Paediatric Infectious Diseases |
| 4. Critical Care Medicine | 16. Paediatric Nephrology |
| 5. Developmental & Behavioural Paediatrics | 17. Paediatric Neurology |
| 6. Endocrinology | 18. Paediatric Ophthalmology |
| 7. Gynecological Oncology | 19. Reproductive Endocrinology & Infertility |
| 8. Infectious Diseases | 20. Rheumatology |
| 9. Interventional Cardiology | 21. Surgical Oncology |
| 10. Maternofetal Medicine | 22. Urogynaecology |
| 11. Neonatal Paediatrics | 23. Vitreo Retinal Ophthalmology |
| 12. Paediatric Cardiology | |

Fellowship of the College of Physicians and Surgeons Pakistan is awarded to those applicants who have:

- a recognized medical degree;
- completed one year house job in a recognized institution
- passed the relevant FCPS Part I Examination;
- registered with the Research, Training and Monitoring Cell (RTMC);
- undergone specified years of supervised accredited training on whole time basis.
- passed IMM examination in Medicine and Allied
- obtained approval of dissertation/ two research articles (related to the specialty) published/ accepted for publication in CPSP approved journal(s):
- completion of entries in e-logbook along with validation by the supervisor;
- been declared successful in examinations carried out by the Examination Department of the CPSP; and
- been elected by the College Council.

It is important to note that all applicants must undergo a formal examination before being offered Fellowship of the relevant specialty, except in case of Fellowship without examination.

TRAINING ENQUIRIES AND REGISTRATION

All trainees should notify the college in writing of any change of address and proposed changes in training (such as change of supervisor, change of department, break in training etc) as soon as possible.

GENERAL INFORMATION

REGISTRATION AND TRAINING

GENERAL REGULATIONS

The following regulations apply to all the candidates taking the FCPS-II Examination. 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/dead.

ELIGIBILITY REQUIREMENTS FOR ENTERING THE FCPS PART II TRAINING PROGRAM IN ANESTHESIOLOGY

- Passed FCPS I in Anesthesiology
- Completed one year house job in a recognized institution.

EXEMPTION FROM FCPS PART-I

An application for exemption from FCPS Part-I must be submitted to the Examination Department of College with all the relevant documents and a bank draft for the prescribed fee.

After due verification, the College may grant exemption from FCPS Part-I to those applicants who have acquired any of the following qualifications in Anesthesiology:

- Diplomate American Board of Specialties
- FCPS Part-I Bangladesh
- FFARCS- Ireland
- FRCA- UK

In all other cases, after proper scrutiny and processing, the College shall decide acceptance or rejection of the request for exemption from FCPS-I on case to case basis. Candidates with FCPS II / equivalent qualification (Recognized by CPSP Council) may be given exemption of two years IMM training in Anesthesiology on application. All applicants who are allowed exemption will be issued an EXEMPTION CERTIFICATE on payment of exemption fee. A copy of this certificate will have to be attached with the application to the Research & Training Monitoring Cell (RTMC) of the CPSP, for registration as FCPS trainee and later with the application for appearing in IMM and FCPS Part-II examination.

DURATION OF TRAINING IN ANESTHESIOLOGY

Total duration of the training is four years divided into following two phases:

- Intermediate Module in Anesthesiology for first two years, after which the trainee is required to appear in the Intermediate Module Examination. Details about the Intermediate Module are given on pages to follow.
- Last two years consist of advanced training in Anesthesiology with prescribed rotations known as FCPS II.

All phases of training inclusive of rotations are to be completed one month before the date of theory examination for IMM or FCPS-II.

APPROVED TRAINING CENTRES

Training must be undertaken in units/ departments/institutions approved by the College.

- Hospitals / Departments fully accredited with College of Physicians & Surgeons Pakistan (CPSP) for training in Anesthesiology for four years.
- All recognized departments to be re-assessed after every 5 years for having maintained following minimum standards:
 - Presence of minimum number of supervisors, atleast two
 - Organizing minimum required CPD / CME activities per year
 - Journal Club Meetings - fortnightly
 - Case Presentations - weekly
 - Hands-on Workshops - Yearly
 - Regular In-Training Assessment (ITA) submission by the supervisor via E-log (quarterly)
- Since Anesthesiology is a skill based specialty, all departments recognized for training should display the following guidelines/ protocols
 - Minimum mandatory monitoring guidelines
 - BLS /ACLS guidelines
 - Anesthesia Machine check list
 - Failed Intubation and Ventilation Drills
 - Anaphylaxis protocol
 - Local Anesthetic Toxicity protocol
 - Malignant hyperthermia protocol

A current list of approved locations is available from the College and its regional offices, as well as on the College website: www.cpsp.edu.pk.

GENERAL REQUIREMENTS

Training should incorporate the principle of gradually increasing responsibility, and provide each trainee with a sufficient scope, volume and variety of experience in a range of settings that include inpatients, outpatients, emergency, operation theatres, intensive care and pain management, etc.

INSTRUCTIONAL METHODOLOGY

Teaching occurs using several methods that range from formal didactic lectures to planned clinical experiences. Aspects covered will include knowledge, skills and practices relevant to the discipline in order to achieve specific learning outcomes and competencies. The theoretical part of the curriculum presents 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 organized to provide appropriate expertise and competence necessary to evaluate and manage common clinical problems. Demonstration in pre-operative clinics and inpatient wards, operation theatres, Post Anesthesia care unit & procedural skill trainings on simulators, manikins and patients are all practical training modalities.

The instructional methodology to be followed by the trainee during fellowship training includes:

1. On-Job Supervised Clinical Training
2. Tutorials/ Lectures/ Group Discussions
3. Workshops
4. Internet research for recent advances

Each methodology should be used to its maximum to achieve the general objectives and also the specific competencies delineated.

E-LOGBOOK

The CPSP Council has made e-logbook mandatory for all residency programs trainees inducted in July 2011 and onwards. Upon registration with RTMC each trainee is allotted a registration number and a password to log on and make entries of all work performed and the academic activities undertaken in e-logbook on daily basis. The concerned supervisor is required to verify the entries made by the trainee. This system ensures timely entries by the trainee and prompt verification by the supervisor. It also helps in monitoring the progress of trainees and vigilance of supervisors.

SUPERVISOR'S

ROLE AND RESPONSIBILITIES

Training held under the aegis of CPSP is compulsorily supervised. A supervisor is a CPSP fellow or a specialist with relevant postgraduate qualifications recognized by CPSP.

Supervision of a trainee is a multifaceted job. Arbitrarily the task is divided into the following components for the sake of convenience. This division is by no means exhaustive or rigid. It is merely meant to give semblance to this abstract and versatile role.

EXPERT TRAINER

- This is the most fundamental role of the supervisors. They have to not only ensure and monitor adequate training but also provide continuous helpful feedback (formative) regarding the progress of the training.
- This would entail observing the trainee's performance and rapport with all the people within his work environment.
- He / she should teach the trainee and help him / her overcome the hurdles during the learning process.
- It is the job of the supervisor to make the trainee develop the ability to interpret findings in his/her patients and act suitably in response.
- The supervisor can assign other consultants in the Unit (Fellows waiting to become Supervisor) of supervision of specific procedures or for workplace based assessment of trainees through Mini CEX, DOPs, etc.
- The supervisor must be adept at providing guidance in writing dissertation / research articles (which are essential components of training).
- Every supervisor is expected to participate actively in Supervisors' workshops, conducted regularly by CPSP, and do his/her best to implement the newly acquired information/ skills in the training. It is a basic duty of the supervisors to keep abreast of the innovations in their field of expertise and ensure that this information percolates to trainees of all years under them.

RELIABLE LIAISON

- The supervisor must maintain regular contact with the College regarding training and the conduct of various mandatory workshops and courses.
- It is expected that the supervisor will establish direct contact with relevant quarters of CPSP if any problem arises during the training process, including the suitability of trainee.
- They must be able to coordinate with the administration of their institutions/ organizations in order to ensure that their trainees do not have administrative problems hampering their training.

PROFICIENT ADMINISTRATOR

- He/ she must ensure that each trainee makes regular entries in e-logbook.
- Provide feedback regarding each trainee quarterly through e-log system.
- Provide record of “In Training Assessment” through e-log. CPSP expects at least once a year ITA.
- The supervisors might be required to submit confidential reports on trainee's progress to the College.
- The supervisor should notify the College of any change in the proposed approved training program.
- In case the supervisor plans to be away for more than two months, he / she must arrange satisfactory alternate supervision during the period.

TRAINEE'S

ROLE AND RESPONSIBILITIES

Given the provision of adequate resources by the institution, Trainees should:

- accept responsibility for their own learning and ensure that it is in accord with the relevant requirements;
- investigate sources of information about the program and potential Supervisor, and play an informed role in the selection and appointment of the Supervisor;
- seek reasonable infrastructure support from their institution and Supervisor, and use this support effectively;
- ensure that they undertake training diligently;
- work with their supervisors in writing the synopsis/ research proposal and submit the synopsis/ research proposal within six months of registration with the RTMC;
- accept responsibility for the dissertation, and plan and execute the research within the time limits defined;
- be responsible for arranging regular meetings with the supervisor to discuss any hindrances to progress and document progress etc. If the supervisor is not able/willing to meet with the student on a regular basis, the student must notify the College;
- provide the supervisor with word-processed updated synopsis and dissertation drafts that have been checked for spelling, grammar and typographical errors, prior to submission;
- prior to submission of dissertation, the student should ensure that the supervisor has all the raw data relevant to the thesis;
- submit completed Dissertation to REU or evidence of publication/ acceptance for publication of two research papers in CPSP approved journal (s) or JCPSP six months before the completion of (last year of) training. The trainee should be the first or second author of both papers and the synopsis of both papers must have a prior approval of REU;
- follow the **College** complaint procedures if serious problems arise;
- complete all requirements for sitting an examination;
- provide feedback regarding the training post to the College on the prescribed confidential form;

TRAINING PROGRAM

INTRODUCTION

Welcome to the residency program in the specialty of Anesthesiology. The College of Physicians & Surgeons Pakistan and the Faculty of Anesthesiology congratulate you on choosing the specialty of Anesthesiology.

Advancement in surgery is only possible with advancement in Anesthesiology. A very sought for specialty in the developed countries, it is an upcoming specialty in Pakistan.

Scope of this specialty is widening with the anesthesiologist playing a pivotal role not only in the operating room but also as a peri-operative Physician in critical care units, pain management clinics and trauma & emergency departments. An Anaesthesiologist as a physician has to be aware of diseases and interventions in all clinical specialties in general and surgical specialties in particular. Moreover, s/he has to be well versed with the physiology of human body, pharmaco-dynamics and kinetics of the drugs.

The aim of the FCPS Anesthesiology training program is to make a specialist who not only can administer quality anesthesia for all types of surgical interventions including routine as well as complex and complicated cases with co-morbidities, and also someone who can manage critical care & pain management clinics. Besides, s/he can undertake academic responsibilities as a teacher, trainer and a researcher.

The aim of FCPS Anesthesiology program is to develop competencies such as application of knowledge, patient management, professionalism, teaching, conducting research and team work.

You can look forward to a bright future both as a clinician and academician in this field.

CURRICULUM

GOALS

The goals of fellowship program in Anesthesiology are:

- Practice quality anesthesia of all types and forms and deal with complicated cases and complications.
- Resuscitate peri-operatively and in trauma care.
- Manage pain clinics and units.
- Manage critical care cases and units.
- Work as a planner, teacher, trainer and team leader.
- Plan and conduct Research & Audit.
- Develop Protocols/Guidelines.
- Follow principles of Medical Ethics and Quality Assurance in practice.
- Participate in Continuing Professional Development activities and keep updated with Recent Advances.

The Fellowship training program focuses on a few key pegs of viable training; these are knowledge, skills and attitudes. CPSP is inclined to follow an outcome based curricular format, which is a blend of behavioral and cognitive philosophies of curriculum development. Following is a global and extensive, yet not the total, list of learning outcomes recommended by the College.

LEARNING OUTCOMES RELATING TO:

I. COGNITION

The learning outcomes will all be at the application level which is the gold standard. The candidate will be able to:

- Relate how body function gets altered in diseased states.
- Request and justify investigations and plan anaesthetic management.
- Assess new medical knowledge and apply it to their setting.
- Apply quality assurance procedures in their daily work.

II. SKILLS

Written Communication Skills

The candidates will be able to:

- Correctly write updated medical records, which are clear, concise and accurate.
- Correctly fill pre-operative and intra-operative forms & flowcharts
- Write clear post-operative management plans, discharge summaries.
- Demonstrate competence in academic writing.

Verbal Communication Skills

The candidates will be able to:

- Establish professional relationships with patients and their relatives or caregivers in order to obtain a history, conduct a physical examination and provide appropriate management.
- Demonstrate usage of appropriate language in seminars, bedside sessions, outpatients and other work situations
- Demonstrate the ability to communicate clearly, considerately and sensitively with patients, relatives, other health professionals and the public.
- Demonstrate competence in presentation skills

Examination Skills

The candidates will be able to:

- Perform an accurate physical examination in medical and other complex health problems.
- Interpret physical signs after physical examination so as to formulate further management.

Patient Management Skills

The candidates will be able to:

- Interpret and integrate the history and examination findings and arrive at an appropriate differential diagnosis and diagnosis.
- Demonstrate competence in problem identification, analysis and management of the problem at hand by the use of appropriate resources and interpretation of lab results.
- apply the knowledge of the therapeutic interventions used in the field of **Anesthesia** for patient management.
- Prioritize different problems within a time frame.

Skills in Research

The candidates will be able to:

- Use evidence based medicine and evidence based guidelines
- Conduct research individually by using appropriate research methodology and statistical methods.
- Correctly guide others in conducting research by advising about study designs, research methodology and statistical methods that are applicable.
- Interpret and use results of various research articles.

III. ATTITUDES

Towards Patients

The candidates will be able to:

- Establish a positive relationship with all patients in order to ease illness and suffering
- Facilitate the transfer of information important to the management and prevention of disease
- Demonstrate awareness of bio-psycho-social factors in the assessment and management of a patient
- Consistently show consideration of the interests of the patient and the community as paramount with these interests never subservient to one's own personal or professional interest.

Towards Self Development

The candidate will be able to:

- Demonstrate consistently, respect for every human being irrespective of ethnic background, culture, socioeconomic status and religion
- Deal with patients in a non-discriminatory and prejudice-free manner
- Deal with patients with honesty and compassion
- Demonstrate flexibility and willingness to adjust appropriately to changing circumstances
- Foster the habit and principle of self-education and reflection in order to constantly update and refresh knowledge and skills and as a commitment to continuing education.
- Recognize stress in self and others
- Deal with stress and support medical colleagues and allied health workers.
- Handle complaints including self-criticism or criticism by colleagues or patients
- Understand the importance of obtaining and valuing a second opinion.

Towards Society

The candidate will be able to:

- Understand the social and governmental aspects of health care provision.
- Offer professional services while keeping the cost effectiveness of individual forms of care.
- Apply an understanding of hospital & community-based resources available for patients and care givers in under served areas.

OVERVIEW OF FCPS - BASIC & ADVANCED MODULE

The curriculum is designed to guide the supervisor & facilitate the trainee to achieve the goals of fellowship in the following areas of cognition and to acquire laid down skills & attitudes. Since advanced module or FCPS II is a continuum of the first two years, the candidate will revisit the identified areas covered in the IMM as well as study the topics given in Advanced Module.

Section A: Applied Basic Sciences

1. Clinical Pharmacology
2. Clinical Anatomy, Physiology
3. Applied Physics, Anesthesia Machine & Monitoring Equipment
4. Clinical measurement

Section B: Co-existing Diseases

1. Patho-physiology & management
2. Decision making and referral

Section C: Clinical Anesthesia for different Surgical Disciplines, General/Regional/Local

1. Pre-operative assessment, Preparation & Risk assessment
2. Intra operative management
3. Post operative care
4. Critical Incidents & Crises management

Section D: Resuscitation & Trauma Medicine

1. Cardio pulmonary resuscitation BLS/ACLS
2. Advanced Trauma Life Support
3. Trauma Medicine

Section E: Critical care management

1. Clinical
2. Administrative

Section F: Pain management

1. Clinical
2. Administrative

INTERMEDIATE MODULE REQUIREMENTS

INTRODUCTION

To ensure better training, the 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 trainees with an estimate of mid-training competence. It also serves as a diagnostic tool for trainees & supervisors, provides a curricular link between basic and advanced training, and an opportunity for sampling a wider domain of knowledge & skills.

Vide Notification No. 6-1 / Exam-04 / CPS / 1438 S dated July 21, 2004 all FCPS II trainees in Anesthesiology must have passed the Intermediate Module examination as one of the mandatory eligibility requirements for sitting in FCPS II examination in September 2007 onwards. Candidates are required to complete two years training in Anesthesiology, attend all mandatory workshops and sit the Intermediate Module examination. In case of failure in the Intermediate Module examination, the trainees are permitted to continue their training in the chosen discipline but must pass the Intermediate Module examination prior to sitting the final FCPS II examination.

REGISTRATION AND SUPERVISION

All trainings must be supervised, and trainees are required to register with the Research and Training Monitoring Cell (RTMC) within 30 days of starting their training for the Intermediate Module. In case of delay in registration, the start of training will be considered from the date of receipt of application by the RTMC. Registration forms are sent to successful candidates with the result of the FCPS I examination. They must submit the name of their supervisor by the date indicated on the registration form. Training is compulsorily monitored by an approved supervisor who is a CPSP fellow or a specialist with relevant postgraduate qualifications registered with the RTMC. The trainees are not allowed to work simultaneously in any other department/institutions for financial benefit and/or for other academic qualifications.

MANDATORY WORKSHOPS

It is mandatory for all trainees to attend the following CPSP certified workshop in the 2 years before attempting the Intermediate Module exam.

1. Introduction to Computer & Internet.
2. Research Methodology & Dissertation writing
3. Communication Skills
4. Basic Life Support & Advanced Cardiac Life Support

RESEARCH (DISSERTATION / TWO PAPERS)

One of the requirements for fellowship training is writing of a dissertation or two research papers on a topic related to the field of specialization. Synopsis of the dissertation or research papers must be approved from the Research & Evaluation Unit (REU) of CPSP by the end of first year of the Intermediate Module before starting the research work.

OBJECTIVES INTERMEDIATE MODULE

Upon completion of the first 2 years of training a candidate will be able to:

1. Apply the knowledge of basic sciences for assessing and resolving clinical problems
2. Demonstrate knowledge, skills and attitudes required to practice quality anesthesia(General/ Regional) in a variety of settings and in sufficient volume.
3. Understand Critical care and Pain management
4. Understand various Research Methodologies and be able to analyze data, do literature review and conduct research.
5. Conduct clinical audits
6. Demonstrate Basic and Advanced Resuscitative Skills.
7. Keep updated about Recent Advances.
8. Demonstrate skills of teaching and leadership.

SPECIFIC COMPETENCIES

Emphasis laid on the acquisition of following specific competencies:

1. Evidence Based guidelines / protocols for patients safety
 - Minimum mandatory monitoring BLS /ACLS guidelines
 - Anesthesia Machine check list
 - Failed Intubation and Ventilation Drills
 - Anaphylaxis management
 - Local Anaesthetic Toxicity protocol
 - Malignant hyperthermia protocol
2. History Taking
3. Comprehensive Physical Examination
4. Interpretation of Investigations
5. Risk Assessment & making plans of Anesthesia for ASA I -V, elective & emergency patients.
6. Clinical Diagnosis of Co-morbidities
7. Documentation of medical records

8. Communication and Counseling patients, relatives and fellow professionals
9. Safe use of all relevant equipment & safety pertaining to Operation Theatre environment
10. Procedural Skills
11. Manage critical care patients under supervision
12. Pain management under supervision
13. Teach and Train junior residents and paramedics

SYLLABUS

Section A: Applied Basic Sciences

1. *Applied Clinical Pharmacology*

- A) General pharmacology with in depth knowledge of pharmacokinetics & pharmacodynamics of drugs used to provide General Anesthesia
 - Medical gases
 - Intravenous Anesthetics
 - Inhalational Anesthetics
 - Local Anesthetics
 - Neuro muscular blockers-Depolarizers / Non Depolarizers
 - Reversal agents of neuro muscular blockers
 - Analgesics - Opioids /Opioid Antagonists/ Non Opioids
 - Sedatives - eg. Benzodiazepines
 - Anticholinergics
 - Premedicants - Anxiolytics, Antisialogogues, Prokinetics, Antiemetics, Regurgitation Prophylaxis
 - Adrenergics / Antagonists / Hypotensive agents
- B) Pharmacological management of
 - Adverse drug reactions
 - Anaphylaxis
 - Cardio pulmonary resuscitation
 - Systemic toxicity
 - Substance abuse
 - Pharmacology & Provision of Regional Anesthesia
 - Pharmacology related to Acute and Chronic Pain
 - Opioids and opioid antagonists
 - Non-opioids
 - Local Anaesthetics
 - Adjuvants - Antidepressants - Anti-arrhythmics, Antihistamines

2. Anatomy, Physiology & Patho-physiology of Systems

- A) Respiratory System - Detailed Anatomy & Physiology
- B) Cardio Vascular System - Detailed Anatomy & Physiology
(The candidate should learn each and every anatomical and physiological detail of these two systems)
- C) Central Nervous System
 - Anatomy
 - Gross anatomy of Brain
 - Detailed Anatomy of Spinal cord, its coverings and Function
 - Formation of Cerebral spinal fluid
 - Cerebral circulation
 - Vertebral column
 - Dermatomal distribution
 - Pain pathways
 - Physiology
 - Neurotransmitters
 - CSF, Intracranial Pressure
 - Cerebral Circulation and Determinants of Cerebral Blood Flow
 - Synapse and synaptic transmission
 - Effects of anesthetics on the CNS
 - Gate way theory
- D) Autonomic Nervous System
 - Anatomy
 - Physiology
 - Sympathetic receptors and transmitters
 - Parasympathetic receptors and transmitters
 - Anesthetic effects on the Autonomic Nervous System
- E) Neuromuscular Junction
 - Neuromuscular Anatomy and Transmission
 - Tests of Neuromuscular Function
 - Interpretation of Peripheral Nerve Stimulator
- F) Liver
 - Hepatic Circulation
 - Liver Functions and Tests
 - Effects of Anesthesia and Surgery on Liver Function
- G) Kidney
 - Basic Anatomy of Kidneys, Nephron as a unit
 - Body Compartments and Body Fluids
 - Renal Functions and Renal Blood Flow
 - Renal Function Tests
 - Acid-Base control

- Fluid and Electrolyte Balance and Calcium & Magnesium Metabolism
- Peri-operative Fluid Therapy
- Effects of anesthesia & surgery on renal function
- Implication of Renal Transplantation
- H) Maternal and Neonatal Anatomy & Physiology
 - Anatomy of Placenta
 - Physiology of the Uteroplacental Unit - Placental Drug Transfer
 - Physiology of pregnancy
 - Principles of Fetal Assessment and Monitoring (CTG)
 - Neonatal and Paediatric Anatomical & Physiological Changes

3. *Applied Physics, Anesthesia machine & Monitoring Equipment*

- A) Physical laws governing the function of all anesthesia equipment
- B) Physical concepts governing delivery of anaesthetics e.g. vapor pressure, B/G solubility, O/G Solubility, boiling point, critical temperature and pressure, MAC
- C) Operation theatre environment
- D) Humidity & humidification
- E) Electrical safety
- F) Safety of operation theatre personnel
- G) Cleaning & sterilization of equipment
- H) Anesthesia machine, Breathing circuits & Ventilators,
- I) Oxygen Therapy Devices & Ventilator
- J) Scavenging system
- K) Monitoring equipment - Principles & Functioning
 - Oximeter
 - Capnograph
 - Electrocardiography
 - NIBP monitor

4. *Clinical measurement - interpretation and limitations*

- A) Monitoring of Respiratory function
 - Airway pressure, volume, flow, compliance
 - Oximetry
 - Capnography
 - Arterial blood gas analysis
- B) Monitoring of Cardiovascular system
 - B.P measurement, Non invasive
 - Interpretation of Electrocardiogram
 - Principles of Central Venous Pressure Monitoring.

- C) Monitoring of Neuromuscular junction
 - Peripheral Nerve Stimulator
- D) Monitoring of Renal / Hepatic / Haematologic System.
 - Interpretation of relevant investigations
- E) Interpretation of imaging & ultrasound
 - Plain X-Ray - Neck, Chest, Spine
 - Ultrasound
- F) Fetal monitoring - Basic Concept

Section B: Understanding of Co-existing Diseases

1. *In depth knowledge of Pathophysiology, Management and Anaesthetic implications of common systemic medical diseases*

Common Medical Diseases

- A) Central Nervous System
 - Pathophysiology of Head Trauma
- B) Cardio-Vascular System
 - Coronary Artery Disease
 - Hypertension
 - Dysrhythmias and Heart Blocks
- C) Respiratory System
 - Upper Respiratory Tract Infections & Pathologies
 - Chronic Obstructive Airway Diseases
 - Asthma
 - Restrictive Airway Disease
 - Obstructive Sleep Apnoea
 - Pneumo./Hemo./Hydrothorax
- D) Endocrinopathies
 - Thyroid Dysfunction
 - Diabetes Mellitus
- E) Renal Diseases
 - Acute and Chronic Renal Failure
 - Acid-Base Disturbances
 - Water & Electrolyte Imbalance
- F) Musculo-Skeletal & Neuromuscular Diseases
 - Myasthenia Gravis & Myasthenic Syndrome
 - Guillain Barre's Syndrome
 - Tetanus
- G) Haematologic Disorders
 - Anaemias
 - Coagulopathies
 - Platelet disorders
- H) Obesity
- I) Geriatrics

- J) Obstetrics
 - Medical Diseases Complicating Pregnancy
 - Surgical Conditions Concurrent with Pregnancy
 - Pre-eclampsia and Eclampsia
 - Obstetric Haemorrhage and Resuscitation
 - Amniotic Fluid Embolism
 - Labour Pain Pathways and Physiology
- K) Liver Disorders
 - Hepatitis and its implication
 - Cirrhosis

Section C: Clinical Anesthesia for Different Surgical Disciplines

1. *Pre-operative Assessment and Management with Risk Assessment*

- Assessment - History taking, Physical examination
- Ordering & Interpretation of Investigations
- ASA grading, Risk Assessment, Airway Assessment, Prediction of Peri-operative M&M
- Anaesthetic implications of Surgical conditions,
- Emergency & Elective - Optimization & Advice
- Anaesthetic implications of Concurrent medical therapy and advice
- Pre-medication and request for Blood and Blood Products
- Pre-operative fasting guidelines
- Informed Consent and Counseling
- Plan of Anesthesia - General / Regional, Day Care / Inpatient.

2. *Post-Operative Care*

- PACU orders
- PACU essential monitoring
- Analgesia
- Oxygen therapy
- Discharge criteria

3. *Anesthesia for Surgical Disciplines*

General & Regional Techniques for all Surgical procedures done during mandatory rotations of IMM in both Elective & Emergency Surgeries

Medical Implications due to the Surgical Condition

Decision Making on Elective / Emergency Surgery

Decision Making on General/ Regional Techniques

Decision Making on Day Care / In patient management

Surgical Disciplines

- General Surgery/Minimal Access Surgery
- Obstetrics / Gynaecology
- Orthopaedics
- Traumatology & Resuscitation
- ENT
- EYE
- Facio-maxillary
- Dental

Day Care Surgery

- Selection Criteria
- Choice of Anesthesia
- Special Anesthesia Techniques
- Minimum Monitoring Standards
- Post-op Care
- Discharge Criteria
- Critical Incidents, Crisis Management

Implications of intra-operative events

(i) Cardiovascular System

- Hypertension, Hypotension
- Dysrhythmias, Heart Blocks, Cardiac Arrest
- Myocardial Ischaemia

(ii) Respiratory System

- Hypoxia, Hypo and Hypercapnia
- Airway Obstruction
- Laryngospasm, Bronchospasm
- Pulmonary Odema
- Pulmonary Aspiration
- Pneumothorax
- CICV
- Pulmonary Embolism
- Air Embolism

(iii) Drug Induced Crisis

- Overdosage
- Delayed Recovery
- Sux. Apnea
- Dual Block
- Awareness
- Malignant Hyperthermia
- Anaphylaxis

(iv) Miscellaneous

- Hypothermia
- Injuries

Section D: Resuscitation and Trauma Medicine

- Adult Resuscitation - BLS & ACLS
- Neonatal Resuscitation - BLS
- PALS - Basic concepts
- Advanced Trauma Life Support
- Principles of Triage and Trauma Scoring
- Principles of Damage Control Surgery
- Principles of Fluids Resuscitation in Trauma
- All Resuscitative Fluids, Devices & Equipment
- Head & Spinal Trauma
- Trauma of other Body Parts

Section E: Critical Care Management

Clinical Management

- A) Admission & Discharge Criteria
- B) Basic Understanding of Common medical & surgical patients requiring High Dependency or Critical Care Management due to Elective Reasons or due to any Critical incident.
- C) Critical Care Management of commonly admitted patients to ICU (eg) Tetanus, G.B, Sepsis, Shock, MODS, Head trauma, Poly trauma, Obstetric Cases.
- D) Knowledge of systemic support of all systems required by a critically ill patient (eg) Cardiac, Renal, Hematologic, Nutritional
- E) Respiratory failure and Respiratory support including all forms of Oxygen-therapy and devices and Ventilator parameters, Modes of ventilation.
- F) Brain Death & Vegetative States
- G) Knowledge of managing emergencies like Diabetic Ketoacidosis, Massive Haemorrhage, Status Asthmatics, Status Epilepticus, Acute Renal Failure, Acute Hepatic Failure, Disturbance of Temperature regulation.
- H) Poisoning & Envenomation
- I) General nursing care & Infection Control.
- J) Analgesia & Sedation
- K) Comprehensive Anatomical, Physiological & Pharmacological knowledge to carry out the invasive procedures safely under supervision. Be familiar with correct pharmacological assistance & safe use of devices and equipment used for invasive procedures.

Section F: Pain Management

Clinical Management

- Pharmacological Management of Pain with Analgesics, Anaesthetics and Adjuvants
- Basic knowledge of alternative techniques.

CLINICAL COMPETENCIES

The clinical competencies, a specialist must have, are varied and complex. A list of the core procedural competencies required during training in the Department of Anesthesiology is given below. The level of competencies to be achieved each year is specified according to the key, as follows:

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

CLINICAL COMPETENCIES - IMM- YEAR-I, YEAR-II

PROCEDURES	Year I	Year II
A: Clinical skills		
ASA I-II, Elective & Emergency in Minor, Moderate and Major Surgeries		
History taking, Physical Examination, Interpretation of Investigations, including Radiology for CXR & X-ray Cervical Spine	3	3
Management of concurrent illness and medications for pre-op. assessment with relevance to anesthesia, advice on Pre-op medications, & preparation	3	3
Decision making on referral / consult	3	3
Risk assessment, Anesthesia Plan & Administration of Anesthesia	3	3
Recovery and Post-op Care	3	3
Crisis Management & Resuscitation	3	3
Documentation of Records	3	3
B: Communication & Counseling Skills		
ASA I -II, Elective & Emergency in Minor, Moderate and Major Surgeries		
Counsel all patients and their relatives about the anaesthetic interventions in minor & moderate surgeries	3	3
Communicate with colleagues of related disciplines about the techniques, risks and intervention in major and complicated surgeries	3	3
Obtain Informed consent	3	3
Counsel on crisis and management of complications	3	3
Presentation Skills	3	3

Note: Since the discipline of Anesthesiology provides services to various surgical specialties, the number of cases to be anesthetized by each trainee is given in table form on subsequent pages.

CLINICAL COMPETENCIES - IMM- YEAR-I, YEAR-II

PROCEDURES	Year I	Year II
C: Pain Management		
Acute Pain Management		
a. Post-operative		
Systemic	3	3
Epidural / Caudal	1	2
Patient Controlled Analgesic	2	2
Nerve Blocks / Ultrasound guided	1	2
b. Epidural for Labour Analgesia	1	2
D: Procedural Skills		
Intra - Vascular Access and Interpretation of graphs		
i. Peripheral I/V cannulation	4	4
ii. Central I/V cannulation	2	2
iii. Arterial cannulation	2	2
Airway Management		
i. Mask, Guedel Airway, Nasal airways	4	4
ii. Supra glottic Devices	4	4
iii. Endotracheal Intubation		
Mallampati I & II	4	4
Mallampati III & IV	2	2
Cricothyroidotomy		
Percutaneous Dilatational Tracheostomy	1	1
Video Assisted Intubation	2	2
Bronchoscopy	2	2
Thoracostomy	2	2
Regional Techniques		
Sub-arachnoid Block	3	3
Epidural / Caudal	2	2
Combined Spinal Epidural	2	2
Local Blocks (Miscellaneous)		
Brachial Plexus Blocks	2	2
Wrist Block	2	2
Intercostal Block	2	2
TAP Block	2	2
Sciatic Block	2	2
Three in One Block	2	2
Popliteal Block	2	2
Biers Block	2	2
Ankle Block	2	2
Use of Anesthesia Equipment & Sundries	4	4
Use of Monitors & interpretation of information Oximetry, Capnography, NIBP, ECG, Temperature, Peripheral Nerve Stimulator	4	4

ROTATIONS

A certificate testifying the candidate's attendance is obligatory for admittance to the final examination and an entry in the e-logbook must also appear to this effect. The Trainer should arrange for the sub-specialty training according to the facilities available.

		Months	Min. Cases
S.No.	Year I		
1.	Pre-operative Clinics	2	100
2.	General Surgery	3	125
3.	Obstetrics / Gynaecology	2	100
4.	Orthopaedics / Trauma	2	100
5.	Urology	2	75
6.	PACU / Acute Pain	1	50
S.No.	Year II		
1.	ICU	2	30
2.	General Surgery	2	100
3.	Obstetrics /Gynaecology	2	100
4.	Orthopaedics / Trauma	1	50
5.	ENT	2	100
6.	Eye	2	50
7.	Dental / Faciomaxillary	1	40

EMERGENCY & DAY CARE CASES

Year 1	Minimum Number of Cases
Emergency Cases	100
Day Care Cases	100

Year 2	Minimum Number of Cases
Emergency Cases	100
Day Care Cases	100

These cases can be from any surgical discipline

LEAVE

According to the notification issued by CPSP in Feb 2012. as per policy of CPSP.

ASSESSMENT

ELIGIBILITY REQUIREMENTS

For appearing in Intermediate Module examination a candidate should have:

- Passed FCPS I in Anesthesiology or granted exemption
- Registered with the Research Training and Monitoring Cell (RTMC).
- 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
- Completion of entries in e-logbook along with validation by the supervisor
- Submission of "In training assessment" forms through e-log by the supervisor.
- Submitted certificates of attendance of mandatory workshops
- Submitted synopsis of dissertation or abstract of research articles

EXAMINATION SCHEDULE

- The IMM 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, Lahore, Multan, Peshawar, Quetta and Rawalpindi, centres. The College shall decide where to hold oral/practical examination depending on the number of candidates in a city and shall inform the candidates accordingly
- English shall be the medium of examination for the theory/practical/ clinical and viva examinations.
- 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 such a candidate is not a fit person to take the College examination because of using unfair means in the examination, misconduct or other disciplinary reasons.
- Each successful candidate in the Fellowship examination shall be entitled to the award of a College Diploma after being elected by the College Council and payment of registration fees and other dues.

EXAMINATION FEES

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

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 withdrawal of applications.
- 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.

IN TRAINING ASSESSMENT (ITA):

In training assessment has to be conducted by the supervisors and the institutions for Continuous Objective Assessment of training and the trainee. The faculty has proposed two components of In-Training Assessment:

1. Yearly Assessment of trainees through written assessment and TOACS. The scores attained by each trainee are to be sent to CPSP through e-log.
2. Workplace based assessment:
 - Directly observed Procedural Skills - DOPS: 4 DOPS / year with 10 marks each
 - Case Based Discussions - CBD: 3 CBD / year with 10 marks each
 - Anesthesia Mini Clinical Evaluation Exercises - A-CEX: 3 A-CEX / year with 10 marks each)

FORMAT OF IMM EXAMINATIONS

Intermediate Module examination consists of theory and TOACS examination.

1. Theory Examination:

- **Paper- I** 10 Short Answer Questions (SAQs)
- **Paper- II** 100 Single Best MCQs (MCQs)

2. Clinical Examination:

To test basic clinical skills, the clinical examination consists of: TOACS (Task Oriented Assessment of Clinical Skills)
TOACS will comprise of 12-20 stations with a change time of 6 minutes and one minute for the candidate to move from one station to other. The stations may have an examiner, a patient or both. Structured clinical tasks will be set at each station. The examiners will assess the performance of each candidate on a rating scale. On stations where no examiner is present the candidates will have to submit written responses to short answer questions on a response sheet.

There will be two types of stations: static and interactive with 6-10 stations each. 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 to questions asked. At the interactive stations the candidate will have to perform a procedure, for example, taking history, performing a clinical examination, counseling, assembling an instrument, etc. 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.

POST INTERMEDIATE MODULE FCPS II REQUIREMENTS

INTRODUCTION

After having acquired in the basic knowledge and skills of the specialty of Anesthesiology the candidates are now required to undergo more rigorous training to administer safe Anesthesia. It is therefore, expected of the trainee's to devote their full energies and time towards this advance phase of training. In addition they are also expected to complete and submit their dissertation preferably at the beginning of the 4th year of training to sit in the exit exam immediately after completing their training when both knowledge and clinical skills are fresh.

RESEARCH (DISSERTATION)

One of the training requirements for fellowship trainees is a dissertation or two research papers on a topic related to the field of specialization after obtaining the approval of synopsis. The dissertation or research paper must be submitted six months prior to the examination for which the trainees intend to sit in for.

OBJECTIVES FCPS ANESTHESIOLOGY

To have advanced knowledge of relevant basic & clinical sciences & acquire skills and attitude needed by a specialist (consultant) anaesthetist to:

1. Practice safe anesthesia of all types and forms and have the ability to deal with complicated cases and complications if any and have updated knowledge & skill of resuscitation.
2. Deal with cases of Critical Care and Pain Management to be able to set up and manage such units/ or adopt these as his/her main clinical field/ option.
3. Work as a planner, teacher, trainer and team leader and should have the basic expertise of leading a unit of anesthesia.
4. Plan & conduct Research & Audit & develop Protocols/Guidelines.
5. Practice medical ethics and ensure quality control.
6. Participate in Continuing Professional Development activities and to keep updated with Recent Advances.

Trainees are required to revisit the basic concepts given in the syllabus of IMM, to have a better understanding of the advanced concepts

1. *Applied Clinical Pharmacology*

- anesthesia 2013

2. *Applied Clinical Anatomy, Physiology & Patho-physiology of Systems*

- A) Endocrine and Metabolism
 - Diabetes Mellitus
 - Hyper and hypo function of Pituitary gland and hypothalamus
 - Hyper and hypo function of Adrenal gland
 - Hyper and hypo function of Thyroid and Parathyroid glands
 - Diabetes Insipidus, Syndrome of Inappropriate Secretion of Anti-Diuretic Hormone
 - Malignant hyperthermia
 - Porphyria
 - Surgery, Anesthesia and Stress Response
 - Thermoregulation
- B) Hematology / Transfusion / Immunology
 - Anemias, Hemoglobinopathies, Coagulopathies
 - Coagulation Cascade & New Concept of Cell Based Model
 - Anticoagulation & Management of abnormal coagulation
 - Transfusion therapy - Indications / Risks / Complications of blood transfusion
 - Blood components, Artificial colloids, Crystalloids
 - Risks / Complications of Blood substitutes
 - Autologous Transfusion and Blood Conservation Techniques - Basic principles only
 - Anaphylaxis

3. *Applied Physics, Anesthesia machine & Monitoring Equipment*

- A) Monitoring Equipment
 - IBP monitoring devices
 - Transducers
 - CFAM
 - Evoked potentials
 - BIS monitor
 - Temperature monitor
 - PA Catheters / Central Venous Catheters
 - Storage of medical gases & principles of F_iO₂ Analyzer
 - Principles of gas and inhalation agent analysis
 - Neuromuscular Monitoring Devices-Nerve Stimulator, Nerve Locator
 - Cardiac Rhythm Devices-Pacemakers, ICD
 - Defibrillator

4. Clinical measurement - interpretation and limitations

- A) Monitoring of Respiratory function
 - Airway pressure, volume, flow, compliance
 - Oximetry
 - Capnography
 - Pulmonary function tests
 - Arterial blood gas analysis
 - V/Q scanning (Basic Principles of interpretation)
- B) Monitoring of Cardiovascular system
 - B.P measurement, Invasive and Non invasive
 - Interpretation of Electrocardiogram
 - Echocardiography - TEE
 - Cardiac output and Derived Indices, Invasive and Non invasive - All forms, NICO, PICCO, LIDCO
 - Principles of Central Venous Pressure & Pulmonary Artery Pressure Monitoring.
- C) Monitoring of Central Nervous & Neuromuscular System
 - Evoked potentials - Interpretation
 - Interpretation of CFAM
 - Interpretation of BIS
 - Electromyography - Basic understanding
 - Peripheral Nerve Stimulator
- D) Monitoring of Renal / Hepatic / Hematologic System
 - Interpretation of relevant investigations
- E) Interpretation of imaging & ultrasound
 - Plain X-Ray, Neck, Chest, Spine
 - Ultrasound
 - Doppler
 - CT, MRI (Basic Concepts)
- F) Fetal monitoring (Basic Concepts)

Section B: Understanding of Co-existing Diseases

In depth knowledge of Pathophysiology, Management and Anesthetic implications of common systemic medical diseases to be able to make decisions on conducting, postponing or referring for consultation Common Medical Diseases

- A) Central Nervous System
 - Seizure Disorders
 - Psychiatric Disorders
 - Head Trauma

- B) Cardio-Vascular System
 - Coronary Artery Disease
 - Hypertension
 - Dysrhythmias & Heart Blocks
 - Valvular Heart Disease
 - Congestive Cardiac Failure
 - Cardiomyopathies
 - Cor pulmonale
 - Pacemaker / ICD/Stents
- C) Respiratory System
 - Upper Respiratory Tract Infections & Pathologies
 - Chronic Obstructive Airway Diseases
 - Asthma
 - Restrictive Airway Diseases
 - Obstructive Sleep Apnea
 - Pneumo./Hemo./Hydrothorax
 - Evaluation for One Lung Anesthesia
 - Endocrinopathies
 - Pituitary Dysfunction - (Anterior and Posterior)
 - Thyroid Dysfunction
 - Parathyroid Dysfunction
 - Diabetes Mellitus / Insulinoma
 - Adrenal Cortical & Medullary Conditions Esp. Pheochromocytoma.
- D) Renal Diseases
 - Acute and Chronic Renal Failure
 - Nephrotic Syndrome
 - Acid-Base Disturbances
 - Water & Electrolyte Imbalance
- E) Musculo-Skeletal & Neuromuscular Diseases
 - Myasthenia Gravis & Myasthenic Syndrome
 - Guillain-Barre's Syndrome
 - Tetanus
 - Rheumatoid Arthritis
 - Sarcoidosis
 - Parkinson's Disease
 - SLE
 - Ankylosing Spondylitis
 - Muscular Dystrophy
- F) Cancer and its anesthetic Implications
- G) Immunological Disorders & Immunosuppression

- H) Haematologic Disorders
 - Anemias
 - Coagulopathies
 - Platelet disorders
- I) Obesity
- J) Geriatrics
- K) Obstetrics
 - Physiological Changes of Pregnancy
 - Physiology of Utero-Placental Flow, Transfer of Drugs & effects of anesthesia on Uterine Blood Flow & Activity
 - CPR in a pregnant patients
 - Medical Diseases Complicating Pregnancy
 - Surgical Conditions Concurrent with Pregnancy
 - Pre-eclampsia, Eclampsia & HELLP
 - Obstetric Haemorrhage & Resuscitation
 - Amniotic Fluid Embolism
 - Labour Pain Pathways and Physiology
- L) Liver Disorders
 - Hepatitis and its implication
 - Cirrhosis
 - Hepatic Encephalopathy
- M) Common Neonatal & Paediatric Conditions
 - Anatomical, Physiological & Pharmacological differences from adults and their anaesthetic implications including Ex-premature baby
 - Pre-operative Assessment
 - Peri-op Fluid Management
 - Common Congenital anomalies and their anaesthetic implications
 - Paediatric Airway Emergencies
 - Pain Management
 - Trauma & Burns
- N) Thermoregulation & Disorders
 - Malignant Hyperthermia
 - Hypothermia
- O) Genetic disorders
 - Turner's syndrome
 - Trisomy

Should have sufficient knowledge of medicine to be able to take decisions about **uncommon conditions** for referral to literature or consultation with a medical specialist.

Section C: Clinical Anesthesia for Surgical Disciplines

1. Pre-operative Assessment & Management

- Assessment - History taking, Physical examination
- Ordering & Interpretation of Investigations
- ASA grading, Risk Assessment, Airway Assessment, Prediction of Peri- operative M&M
- Anaesthetic implications of Co-existing diseases, Optimization and Referral
- Anaesthetic implications of Surgical conditions,
- Emergency & Elective - Optimization & advice
- Anaesthetic implications of Concurrent medical therapy and advice
- Pre-medication and request for Blood and Blood Products
- Pre-operative fasting guidelines
- Informed Consent and Counseling
- Plan of Anesthesia - General / Regional, Day Care / Inpatient

2. Post-Operative Care

- Decision making on Inter-hospital / Intra-hospital Transfer
- PACU setup & staffing
- PACU orders
- PACU essential monitoring
- Analgesia
- Oxygen therapy
- Discharge criteria

3. Surgical Disciplines

- General and Regional Techniques for all Surgical procedures of mandatory rotations in different Elective and Emergency Surgeries
- Medical Implications due to the Surgical Condition
- Decision Making on Elective / Emergency Surgery
- Decision Making on General / Regional Techniques
- Decision Making on Day Care / In patient management
- Decision Making on Employing Special Anesthesia Techniques
- Theroetical& Practical Knowledge about procedures like, Bronchoscopy, Thoracostomy, Percutaneous Dilatational Tracheostomy, Central Venous Line, Arterial Line.

Surgical Disciplines

- General Surgery
- Obstetrics / Gynaecology
- Paediatrics / Neonatal

- Orthopaedics
- Traumatology & Resuscitation
- Neurosurgery
- Cardiac Surgery
- Thoracic Surgery
- Vascular
- Bariatric
- Minimal Access Surgery
- Laser Surgery
- Robotic Surgery
- Transplant Surgery (Renal, Hepatic)
- Burns
- Plastic
- Anesthesia outside OR

Details of Surgical Disciplines

1. General Surgery
Cholecystectomy, Appendectomy, Bowel Obstruction, Perforation and Bowel Resection, Acute Gastrointestinal Bleeding, Splenectomy, Pancreatic Resection, Hepatic Resection, Portal Shunting Procedures, Adrenal Surgery, Laparoscopic Surgery, Effects of Abdominal Surgery on Pulmonary Function and Postoperative Pulmonary Complications, Postoperative Intestinal Dysfunction,
2. Obstetrics / Gynaecology
Preterm Labour, D/C & D/E, Operative Vaginal Delivery, C-Section for all obstetric conditions, Non-Obstetric Surgery in Obstetric patients, Total Abdominal Hysterectomy, Bilateral Salpingo-Oophorectomy, Obstetric Haemorrhage
3. Paediatrics / Neonatal
Monitoring and Specialized Equipment for Paediatric Anesthesia, Common Paediatric Syndromes and Emergencies, TE fistula, Diaphragmatic Hernia, Exomphalos, Hirshsprungs Disease, Intestinal Atresia, Pyloric Stenosis, Below Umbilicus Surgeries like Inguinal Hernia, Undescended Testis, Imperforate Anus, Paediatric Urology, FB in airway, epiglottitis, Ex-premie, Anesthesia outside OR.
4. Orthopaedics
DVT prophylaxis, Fat Embolism, Pulmonary Embolism, Compartment Syndrome, Cement implantation syndrome, Surgery under Tourniquet, Upper limb Surgeries, Lower limb Surgeries, Spine Surgery

5. Neurosurgery
Air embolism, Intracranial hypertension, Induced Hypotension, Subarachnoid hemorrhage Seizures, Methods of Brain Protection, Declaration of Brain Death, Head Trauma, Evacuation of Haematoma, Cerebral Aneurysms, Occlusive Cerebrovascular Disease, AVM, Cerebral Aneurysm, Posterior Fossa Surgery, Spinal Cord Surgery, Pituitary Tumors, Interventional Neuro radiology, Epilepsy Surgery, Pediatric Neurosurgery
6. Cardiac Surgery
Valvular Disease, CABG & Management of CPB
7. Thoracic Surgery
Pathophysiology of lateral position and open thorax, One Lung Anesthesia, Tracheal Resection, Lung Resection, Airway Laser Surgery, Esophageal Surgery, Thoracoscopic Surgery, Bronchopleural Fistula, Pulmonary Hemorrhage, Bullae and Pneumothorax, Post-Thoracotomy Analgesia
8. Vascular Surgery
Thoracic Aneurysm Surgery, Abdominal Aneurysm Surgery, Peripheral Vascular Surgery, Carotid Endarterectomy, Emergency Vascular Surgery
9. Laser Surgery
Types of lasers and their use, Hazards of laser surgery and appropriate precautions, Management of airway fire,
10. Transplant Surgery (Renal, Hepatic)
Preoperative Assessment, Preparation and Management of Recipient for Kidney, Liver Management of Transplant Patient for Non-transplant surgery, Transplantation Immunology, Management of Live and Cadaver Organ Donor
11. Anesthesia outside OR
Personnel, Patient Selection, Monitoring, Transport, Recovery, Considerations in Anesthesia for, Radiologic Procedures like MRI, CT, Angiography Cardioversion, Emergency Room procedures, ECT

Day Care Surgery

- Selection Criteria
- Choice of Anesthesia
- Special Anaesthesia Techniques
- Post-op. Care
- Discharge Criteria
- Critical Incidents, Crisis Management
- Minimal monitoring standards, utilization of resources

Special Anesthesia Techniques

- Hypotensive Anesthesia
- Use of Hypothermia

Critical Incidents, Crisis Management, Minimum Monitoring Standards

- Cardiovascular System
 - Hypertension, Hypotension
 - Dysrhythmias, Heart Blocks, Cardiac Arrest
 - Myocardial Ischaemia
- Respiratory System
 - Hypoxia, Hypo and Hypercapnia
 - Airway Obstruction
 - Laryngospasm, Bronchospasm
 - Pulmonary Odema
 - Pulmonary Aspiration
 - Pneumothorax
 - CICV
 - Pulmonary Embolism
 - Air Embolism
- Drug Induced Crisis
 - Overdosage
 - Delayed Recovery
 - Sux. Apnea
 - Dual Block
 - Awareness
 - Malignant Hyperthermia
 - Anaphylaxis
- Miscellaneous
 - Hypothermia
 - Injuries

Section D: Resuscitation & Trauma Medicine

- Adult Resuscitation - BLS & ACLS
- Neonatal Resuscitation BLS
- PALS - Basics only
- Advanced Trauma Life Support
- Principles of Triage & Trauma Scoring
- Principles of Damage Control Surgery
- Principles of Fluid Resuscitation in Trauma
- All Resuscitative Fluids, Devices & Equipment

- Blunt and Penetrating Trauma
- Airway Trauma
- Head and Spinal Trauma
- Thoracic Trauma
- Abdominal Trauma
- Trauma of other Body Parts

Section E: Critical Care Management

1. Clinical Management

- Admission & Discharge Criteria
- Basic Understanding of Common medical and surgical patients requiring High Dependency or Critical Care Management due to Elective Reasons or due to any Critical incident.
- Critical Care Management of commonly admitted patients to ICU (eg) Tetanus, G.B, Sepsis, Shock, MODS, Head trauma, Poly trauma, Obstetric cases.
- Knowledge of systemic support of all systems required by a critically ill patient (eg) Cardiac, Renal, Hematologic, Nutritional
- In depth knowledge of Respiratory failure and respiratory support including all forms of Oxygen-therapy and devices and ventilator parameters, modes of ventilations.
- Brain Death & Vegetative States Diagnosis, Decisions and Orders eg DNR Code Status.
- Knowledge of managing Emergencies like Diabetic Ketoacidosis, Massive Haemorrhage, Status Asthmatics, Status Epilepticus, Acute Renal Failure, Acute Hepatic Failure, Disturbance of Temperature regulation.
- Poisoning and Envenomation
- General nursing care & Infection Control Antibiotic policy
- Analgesia and Sedation
- Scoring system APACHE, SOFA etc
- Concept and Implementation of Bundle Therapy
- Comprehensive Anatomical, Physiological & Pharmacological knowledge to carry out the invasive procedures safely. Be familiar with procedures and the ability to deliver correct pharmacological assistance with the safe use of devices. Should have the know how of the equipment used for invasive procedures.

2. Administrative

- Organization and setting up an ICU
- Staffing, Equipment and Environment
- Admission and Discharge Policies
- Development of protocols and guidelines (eg) DNR, Organ Donation etc.
- Documentation and Record Keeping
- Communication and Counseling
- Ethical Approval of Research Protocols
- Funding, Data Collection and Statistical Analgesia
- Medico-legal Aspects

Section F: Pain Management

1. Clinical Management

- Pharmacological and Non Pharmacological Management of Pain with Analgesics, Anaesthetics and Adjuvants
- All techniques and procedures required to provide pain relief in acute and chronic conditions
- Basic Understanding of Palliative Care

2. Administrative

- Setting up of a Pain Management Clinic
- Developing Protocols / Guidelines for managing Acute and Chronic Pain
- Documentation and Record keeping
- Communication and Counseling
- Ethical Approval of Research Protocols Finding, Data Collection and Statistical Analysis
- Medico-legal Aspects

Section G: Professional Skills

1. Statistics and Research Methods

- Statistics
 - Definitions: mean, mode, median, standard deviation
 - Tests: one and two sample tests, multiple sample tests, contingency tables and Chi² analysis, linear regression and correlation
 - Concepts: sensitivity, specificity, incidence, prevalence, positive predictive value, negative predictive value, odds ratio, sample size analysis

- Experimental Designs: Prospective, Retrospective, Randomization, Protocol development
 - Writing a paper
 - Critical Appraisal
 - Reading the Literature
 - Studying a study: how to determine if a study is valid, peer reviewed, relevance of topic, study design, statistical analysis, types of statistical error
 - Appropriate application of literature to clinical practice
 - Use of Medline and other information sources
 - Research Ethics

2. Ethics

- Basic principles of Ethics - Autonomy, Beneficence, Non-maleficence, Justice
- Ethical systems- Teleological, Deontological, Different value systems cultural, religious
- Discussing/framing an ethical argument, Common areas of ethical conflict in anesthesia duty to report colleagues Informed consent, surgical, anaesthetic patient refusal, limited consent (models of autonomy vs beneficence) age (children) mental competence, substitute decision making, coercion vs persuasion
- Duty of Care - Physician- Patient Contract, patient dangerous to the physician (AIDS, Hep B, Violence) confidentiality, Allocation of resources, End of Life decision, Brain death, with- holding/withdrawing treatment,
- Advance Directives/Living Wills no blood, DNR, Informed consent

3. Legal Issues

- Consent, Informed consent, disclosure of risk substitute decision makers
- Malpractice: Duty of Care, definition of negligence, Law suits: how to handle the threat of a law suit, avoiding law suits, Confidentiality

4. Continuous Quality Improvement

- Determinants of quality, Role of individual department members, Quality improvement tools, Conducting a QI project: structure, process, outcome evaluation of QI results.

5. Teaching and Communication Skills

- Presentation skills giving rounds (& larger lectures), preparing slides and overheads, oral exams. Teaching principles of professional education one-to-one, teaching with students and juniors, housestaff, small group teaching, how to give feedback, principles of evaluation
- Learning skills: Concept of CME & CPD, Organizing study & reading in residency, What to read, Use of literature searchers, the Net, an effective program for continuing medical education.
- Communication with patients and families, effective interviewing and information-giving skills, Determining how information is received, Breaking bad news, Managing disagreements.
- Making a contribution to your practice environment
- Defining personal professional interests in addition to clinical service. (Teaching, research, administrative, technical/ equipment/quality assurance, etc.)
- Time management to leave quality time for personal and family life
- Peer group leadership, Strategic planning, Advocacy role for the department within the hospital, Interface between external professional bodies, government and public organizations and the department.

CLINICAL COMPETENCIES

The clinical competencies, a specialist must have, are varied and complex. A list of the core procedural competencies required during training in the Department of Anesthesia is given below. The level of competencies to be achieved each year is specified according to the key, as follows:

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

CLINICAL COMPETENCIES - YEAR-III, YEAR-IV

PROCEDURES	Year III	Year IV
A: Clinical skills		
ASA I-V, Elective & Emergency in Minor, Moderate and Major Surgeries		
History taking, Physical Examination, Interpretation of Investigations, including Radiology for CXR and X-ray Cervical Spine	4	4
Management of Concurrent illness and medications for Pre-op. assessment with relevance to anesthesia advice on Pre-op medications, & preparation	4	4
Decisions making on referral / consult	4	4
Risk assessment, Anesthesia Plan & Administration of Anesthesia	4	4
Recovery and Post-op Care	4	4
Crisis Management & Resuscitation	4	4
Documentation of Records		
B: Communication & Counseling Skills		
ASA I-V Elective & Emergency in Minor, Moderate and Major Surgeries		
Counsel patients and their relatives about the anaesthetic interventions in minor and moderate surgeries	4	4
Communicate with colleagues of related disciplines about the techniques, risks and intervention in major and complicated surgeries	4	4
Obtain Informed consent	4	4
Counsel on crisis and management of complications	4	4
Presentation Skills	4	4

CLINICAL COMPETENCIES - YEAR-III, YEAR-IV

PROCEDURES	Year III	Year IV
C: Pain Management		
Acute Pain Management		
a. Post-operative		
i. Systemic	4	4
ii. Epidural / Cauda	4	4
iii. Nerve Blocks / Ultra sound guided	4	4
b. Epidural for Labour analgesia	3	4
Chronic Pain Management		
i. Blocks under imaging	2-3	2-3
ii. TENS	2-3	2-3
iii. Radiofrequency	2	2
Fluoroscopy	2	2
D: Procedural Skills		
Intra-Vascular Access & Interpretation of graphs		
i. Central I/V cannulation	4	4
ii. Arterial cannulation	4	4
iii. Pulmonary Artery Catheterization	2-3	2-3
Airway Management of ASA I-V, Elective / Emergency in all major / complicated surgeries.		
Endotracheal Intubation, Mallampati I & IV	4	4
Cricothyroidotomy	3	3
Percutaneous Dilatational Tracheostomy	2	2
Video Assisted Intubation	2	2
Bronchoscopy	2	2
Thoracostomy	2	2
Regional Techniques		
Sub-arachnoid Block	4	4
Epidural / Caudal	4	4
Combined Spinal Epidural	4	4
Local Blocks (Miscellaneous)		
Brachial Plexus	3	3
Wrist Block	3	3

CLINICAL COMPETENCIES - YEAR-III, YEAR-IV

PROCEDURES	Year III	Year IV
D: Procedural Skills		
Intercostal Block	3	3
TAP Block	3	3
Sciatic Block	3	3
Three in One Block	3	3
Biers Block	3	3
Ankle Block	3	3
Wrist Block	3	3
Use of Anesthesia Equipment and Sundries	4	4
Use of Monitors and interpretation of information		
i. CNS monitoring		
Evoked Potentials	3	3
BIS	3	3
CFAM (Cerebral Function Analysis Monitor)	3	3
ii. PNS monitoring		
Nerve Stimulator / Locator	4	4
iii. Respiratory Monitoring		
Oximetry - All forms Capnography	4	4
Flow-Volume loops, Compliance graphs, Airway Pressure	4	4
Arterial Blood Gases	4	4
Pulmonary Function Tests	4	4
iv. Cardio-Vascular Monitoring		
Blood Pressure -		
Non Invasive / Invasive	4	4
ECG	4	4
Echocardiography, TEE	4	4
Cardio Output & Derived Indices	4	4
v. Haematologic, Hepatic, Renal Systems and		
Acid Base Balance	4	4
Ability to order correct battery of investigations and correct interpretation of the obtained information	4	4

CLINICAL COMPETENCIES - YEAR-III, YEAR-IV

PROCEDURES	Year III	Year IV
E: ICU Skills		
Ventilatory support		
i. Assembly of ventilator	4	4
ii. Choice of correct respiratory support by choosing correct variables and modes	4	4
iii. Choice of Sedation & Analgesia	4	4
Cardio-Vascular Support		
i. Ability to provide cardio vascular support with correct choice of drugs and infusion devices	4	4
Renal Support		
i. Drugs	2	2
ii. Dialysis	2	2
Haematologic support		
i. Fluids, Blood and Blood Products	4	4
Nutritional support		
i. Delivery Devices	4	4
ii. Choice of Enteral / Parenteral Nutrition	4	4
iii. Calculation of Nutritional requirements	4	4
General Patient Care, Physiotherapy		
i. Ability to advice the paramedics	4	4
Infection Control and Barrier Nursing		
i. Choice of Antibiotics	3	3
ii. Making Protocols	3	3
iii. Monitoring of Infection Control	3	3
Implementation of "Bundle therapy"		
i. Central line Bundle	4	4
ii. Ventilator Bundle	4	4
iii. Sepsis Resuscitation Bundle	4	4
iv. Sepsis Management Bundle	4	4

Note: Since the discipline of Anesthesiology provides services to various surgical specialties, the number of cases to be anesthetized by each trainee is given in table form on subsequent pages.

ROTATIONS

A certificate testifying the candidate's attendance is obligatory for admittance to the final examination and an entry in the e-logbook must also appear to this effect. The Trainer should arrange for the sub-specialty training according to the facilities available.

		Months	Min. Cases
S.No.	Year III & IV		
1.	General Surgery	2	100
2.	Obstetrics / Gynecology	2	100
3.	Orthopedics / Trauma	1	50
4.	Pediatrics/Neonatal	3	100
5.	Anesthesia outside OR	2	75
6.	Neurosurgery	3	75
7.	Cardio-Thoracic	2	25
8.	Urology/ *Transplant	1	50
9.	Burns/ Plastic/ Vascular	2	50
10.	ICU	3	40
11.	Pain Management Acute and Chronic	3	75

Should have observed management of 5 renal transplant patients

EMERGENCY & DAY CARE CASES

Year 3	Minimum Number of Cases
Emergency Cases	100
Day Care Cases	100

Year 4	Minimum Number of Cases
Emergency Cases	100
Day Care Cases	100

These cases can be from any surgical discipline

ASSESSMENT

ELIGIBILITY REQUIREMENTS FOR FCPS PART-II EXAMINATION

The eligibility requirements for candidates appearing in FCPS Part II are:

- To have passed FCPS Part-I in Anesthesia, or has been granted official exemption.
- To have undertaken two years training in Intermediate Module in Anesthesia.
- To have undertaken four years minimum of the specified training in Anesthesia.
- Submission of “In training assessment” forms through e-log by the supervisor.
- To provide certificate of having passed the Intermediate Module Examination in Anesthesia.
- Completion of entries in e-logbook along with validation by the supervisor
- To provide a certificate of approval of dissertation or acceptance of two research papers which must accompany the application form
- To provide a certificate of attendance of mandatory workshops

EXAMINATION SCHEDULE

- The FCPS Part-II 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, Lahore, Larkana Multan, Peshawar, Quetta and Rawalpindi, centers. The College shall decide where to hold oral/practical examination depending on the number of candidates in a city and shall inform the candidates accordingly.
- English shall be the medium of examination for the theory/ practical/ clinical and viva examinations.
- The College will notify of any change in the centers, 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 such a candidate is not a fit person to take the College examination because of using unfair means in the examination, misconduct or other disciplinary reasons.
- Each successful candidate in the Fellowship examination shall be entitled to the award of a College Diploma after being elected by the College Council and payment registration fees and other dues.

EXAMINATION FEES

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

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 withdrawal of applications.
- 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.

Every candidate vying for the Fellowship of the College of Physicians and Surgeons Pakistan must pass both parts of the Fellowship examination unless exemption is approved. The College in its endeavor to improve and upgrade its examination system and make it more fair and candidates friendly will be introducing TOACS (Task Oriented Assessment of Clinical Skills) and MCQ's in the near future. However any such changes will be made after notifying candidates well in advance.

IN TRAINING ASSESSMENT (ITA):

In training assessment has to be undertaken by the trainees for Continuous Objective Assessment of training. The faculty has proposed two components of In-Training Assessment:

1. Yearly Assessment of trainees shall comprise of written Assessment and TOACS. The scores attained by each trainee are to be sent to CPSP through e-log.

2. Workplace based assessment Shall comprise of:
- Directly observed Procedural Skills - DOPS. (4 DOPS / year with 10 marks each)
 - Case Based Discussions - CBD. (3 CBD / year with 10 marks each)
 - Anesthesia Clinical Evaluation Exercises - A-CEX. (3 A-CEX / year with 10 marks each)

FORMAT OF FINAL FCPS EXAMINATIONS

Theory examination will comprise of:

1. **Theory Examination:**

- **Paper- I** 10 Short Answer Questions (SAQs)
- **Paper- II** 100 Single Best MCQs (MCQs)

2. **Clinical Examination:**

- Viva Voce-I - 2 examiners, 25 mins each
- Viva Voce-II - 2 examiners, 25 mins each
- Long Case - 2 examiners, one hour
- TOACS - Task Oriented Assessment of Clinical Skills
 - ▶ 15-20 - Total Stations of TOACS
 - ▶ 7-10 - Static
 - ▶ 7-10 - Interactive / Observed
 - ▶ Each Station of 6 mins

USEFUL ADDRESSES AND TELEPHONE NUMBERS

1. Regional Offices of the CPSP

MUZAFFARABAD

CMH Muzaffarabad
Azad Kashmir
TEL: 05822-920998
Email: rc_muzaffarabad@csp.edu.pk

ABBOTTABAD

Ayub Hospital Complex
Abbottabad
TEL: 0992-383330
Email: rc_abbottabad@csp.edu.pk

PESHAWAR

Hayatabad Medical Complex
Phase IV, Hayatabad,
Peshawar
UAN: 091-111-666-666
TEL: 091-9217011, 091-9217320-1
FAX: 091-9217062
Email: rc_peshawar@csp.edu.pk

ISLAMABAD

P.I.M.S, Ravi Road, Sector G- 8/ 3
Islamabad.
UAN: 051-111-666-666
TEL: 051-9262590-1,
FAX: 051-9262592
Email: rc_islamabad@csp.edu.pk

FAISALABAD

Punjab Medical College
Faisalabad
UAN: 041-111-666-666
TEL: 041-9210131, 9210366-8
FAX: 041-9210224
Email: rc_faisalabad@csp.edu.pk

LAHORE

Next to INMOL, Hospital
New Muslim Town, Block-D
Lahore.
UAN: 042-111-666-666
TEL: 042- 9231320-8
FAX: 042- 9231327
Email: rc_lahore@csp.edu.pk

MULTAN

Nishtar Medical College,
Distt. Jail Road, Opp Circuit House,
Multan.
UAN: 061-111-666-666
TEL: 061-9200946, 9200952
Email: rc_multan@csp.edu.pk

BAHAWALPUR

Quaid-e-Azam Medical College
Bahawalpur
TEL: 062- 9250461
Email: rc_bahawalpur@csp.edu.pk

NAWABSHAH

Peoples Medical College for Girls
Nawabshah
TEL: 0244-9370271, 9370479
FAX: 0244-9370478
Email: rc_nawabshah@csp.edu.pk

LARKANA

Chandka Medical College
Larkana
TEL: 074 – 9410726
Email: rc_larkana@csp.edu.pk

HYDERABAD

Adjacent to Sir Cowasji Jehangir
Institute of Psychiatry,
Hyderabad, Sindh.
TEL: 022-3860056
FAX: 022-3860057
Email: rc_hyderabad@csp.edu.pk

QUETTA

Near Cenar Hospital,
Off: Brewery Road, Quetta
TEL: 081-9213434 & 081-2913435
FAX: 081-2853326
Email: rc_quetta@csp.edu.pk

KARACHI

2. Departments of CPSP Karachi

UAN – 021-111-606-606

- **Department of Medical Education**
99207100 -10 Ext: 235/240
- **Examination** (FCPS Part I)
99207100 -10 Ext: 311
- **Examination** (FCPS Part II)
99207100 -10 Ext: 215
- **Registration, Training & Monitoring Cell**
99207100 -10 Ext: 345 & 324

For further Information:
Phone: 99207100-10
UAN 111-606-606
Facsimile: 99266450
Website: www.csp.edu.pk

OVERSEAS CPSP CENTRES

3. Saudi Arabia

RIYADH

Saudi Council for Health Specialities
Diplomatic Quartre P.O.Box 94656,
Riyadh - 11614.
Kingdom of Saudi Arabia
City: Riyadh
Country: Kingdom of Saudi Arabia
TEL: 966-1-4822415 ext:156/141
FAX: 966-1-4884146

4. Nepal

KATHMANDU

Institute of Medicine, Maharajgunj,
Kathmandu, Nepal
City: Kathmandu
Country: Nepal
TEL: 00977-1-4416224
FAX: 00977-1-4416224
Email: cpsp_kathmandu@yahoo.com

TRAINING PROGRAM
Intermediate Module
Year I & II

TRAINING PROGRAM
Post Intermediate Module
Year III & IV