Anaesthesiology and Intensive Care

The specialty of anaesthesia deals with the pre-operative management of surgical patients requiring anaesthesia. Anaesthesiologists are responsible for provision of anaesthesia to facilitate all kinds of surgical procedures including cardiopulmonary bypass and highly specialised neurosurgical and paediatric procedures. With the recognition and development of anaesthesia as a medical specialty, it is now no longer limited to the operating room. Outside operating room the anaesthesiologists are considered active members of basic and advanced life support and trauma teams and are responsible for management of critically ill patients in ICU. They also provide anaesthesia care to advance radiological and gastro-endoscopy procedures. They also provide anaesthesia to the obstetric patient and provide epidural services to the laboring patient. As pain physicians, anaesthesiologists deal with a variety of acute and chronic pain conditions.

The Department of Anaesthesia at AKU Karachi started in 1985 with three faculty members. Our Department pioneered a structured training programme in the specialty within the country. The residency training programme started in 1986 with induction of three residents. In the last 30 years, the department has grown considerably with 35 full-time, 3 part-time and 3 honorary faculty and there are 30 residency positions. The programme is recognised by the College of Physicians and Surgeons Pakistan (CPSP). To date, 87 residents have qualified from the programme. From 2011 we have one research supervisor and one research officer in our department to promote research activities within the department.

The (name of programme) programme was initially designed as a four-year structured training programme. From November 1, 2003 an additional fifth year has been incorporated. The programme is intended to provide education and clinical experience in the science and practice of medicine related to anaesthesiology. Our highly qualified teaching faculty members are responsible to ensure the stepwise graded training of residents. In our residency programme extensive clinical training is provided with a well design academic curriculum. The clinical rotation and academic meeting schedule assures balanced anaesthesia training for each resident. Five years of residency training comprises one year of basic clinical training, and four years specialised training include training in obstetric epidural and pain management services.

Rapid extension of anaesthesia services inside and outside operating room put great demands on the consultant anaesthesiologists and the trainee's time and attention. Our programme is constructed in such a way that the training aspects are given equal attention through the provision of protected time for research and scholarly activities. Our teaching faculty serves as mentors and provides a learning environment that contributes towards effective education. Department also supports residents to attend workshops organised by CPSP, PGME and Community Health Sciences. The residents are encouraged to participate actively in local, national and international conferences / seminars of anaesthesia, intensive care and pain management.

There is a tremendous development in anaesthesia as a medical specialty. The role of anaesthesiologists has expanded enormously; as a result, the need for trained professional anaesthesiologists is rising in the world. Currently our graduates are working as consultant anaesthesiologists not only in Pakistan, but also in Middle East, UK, USA, Ireland, Tanzania and Canada.

Objectives

At the end of anaesthesiology residency programme resident will be:-

- Well informed, independent and clinically competent consultant physicians, capable of functioning in a variety of clinical inpatient, outpatient, and surgical intensive care settings in both urban and rural population of Pakistan.
- Able to understand the basic principles of research and medical ethics and conduct themselves with personal and professional integrity.
- Able to provide a proper structured training in other institutions of Pakistan.
Duration of training

The programme comprises of five years of training.

Eligibility

- MBBS or equivalent degree approved by the PM&DC
- One-year internship with six months in Medicine or allied disciplines and six months in Surgery or allied disciplines
- FCPS-I is preferred but not mandatory.

Scope and content

Clinical training schedule

The resident will be rotating in the following according to level of training:

Resident I

- Pre-operative evaluation: 2 months
- General surgery: 2 months
- Gynaecology: 2 months
- Post Anaesthesia Care Unit: 2 months
- Orthopaedics / Trauma: 2 months
- Urology: 2 months

Resident II – V

- SDC / Maxillofacial / Ophthalmology: 3 Months
- ICU: 3 Months
- Obstetrics: 3 Months
- ENT: 3 Months
- Paediatrics: 3 Months
- Neuro anaesthesia: 3 Months
- Pain Management: 3 Months
- General Surgery: 3 Months
- Urology: 3 Months
- Plastic surgery: 3 Months
- Vascular surgery: 3 Months
- Orthopaedic / trauma: 3 Months
- Cardiothoracic Surgery: 3 Months
- Radiology / MAC / ECT: 3 Months

*Some of the rotations will be repeated to complete the 5 years of residency.

Didactic content

Weekly tutorials are held on Clinical Anaesthesia. Residents are given problem based scenarios, which they have to present and are evaluated by the faculty coordinating the session. In addition, monthly morbidity and mortality meetings, journal club sessions, clinical case discussions, audit meetings, guest lectures, problem-based learning, critical incident reporting and evidence-based anaesthesia problems are held regularly in departmental morning meetings.
Evaluation

Continuous evaluation and immediate feedback takes place between residents and consultants during the clinical training. Evaluation takes place after each rotation. In addition, formal in-training exam is carried out twice a year and is based on an ongoing assessment and formal tests with MCQs, SAQs, OSCE, and end of rotation viva voce. Regular feedback is given to the residents on ways to improve their skills and knowledge.

On-call duties

The residents work in a rota of 1 in 3 or 1 in 4. The first year resident is mainly responsible for the pre-operative rounds. The second year/third year resident provides cover for Intensive Care Unit and cardiac arrests in the Hospital. The third year resident also has the main responsibility in the operating room and the fourth or final year resident acts as a team leader, and is responsible for his junior colleagues and liaison with the consultant on call.

Positions available

There are a total of thirty positions in the programme. Every year new residents are inducted depending upon the positions available, which itself is dependent upon how many residents graduate each year.

Administrative set-up

The programme is Directed by Dr. Aliya Ahmed, and Coordinated by Dr. Ali Asghar.

Following is the list of faculty in the department:

Full-time Faculty

Gauhar Afshan
The Salma & Amin Mohammad Lakhani Family Chair
Professor and Chairperson
MBBS Karachi; FCPS Pakistan

Professors (4)

Fauzia A. Khan
Tajdin H. Jaffer Professor
MBBS Punjab; LRCP, MRCS London
FRCA UK, FCPS (Hon) Pakistan

Fazal Hameed Khan
The Mohammad Bhai Professor
MBBS Karachi; FCPS Pakistan
European Diploma in Intensive Care

M. Qamarul Hoda
MBBS Karachi; MCPS Pakistan
FFARCS Ireland

Associate Professors (6)

Hameedullah Saleemullah
MBBS Karachi; FCPS Pakistan

Mohammad Hamid
MBBS Karachi
Diplomate American Board of Anaesthesia
Fellowship in Cardiothoracic Anaesthesia

Aliya Ahmed
MBBS Karachi;
DA UK, FFARCS Ireland
Masters in Health Professions Education, AKU

Samina Ismail
MBBS Karachi; FCPS Pakistan

Khalid Samad
MBBS Karachi; FCPS Pakistan

Hamid Iqil Naqvi
MBBS Punjab; FCPS Pakistan

**Assistant Professors: (17)**

Fauzia Nasim Minai
MBBS Karachi; FCPS Pakistan
Advanced Diploma in Health Professions Education, AKU

Robyna Irshad
MBBS Punjab; FCPS Pakistan
MHS (Bioethics) Canada

Abdul Monem
MBBS Sindh; MCPS, FCPS Pakistan

Khalid Siddiqui
MBBS Karachi; FCPS Pakistan

Faisal Shamim
MBBS Karachi; FCPS Pakistan

Shemila Abbasi
MBBS Karachi; FCPS Pakistan

Mohammad Irfan Akhtar
MBBS; FCPS Pakistan, Fellowship in Cardiothoracic Anaesthesia (AKU)

Dr Madiha Hashmi
MBBS, MCPS, FFARCSI

Sobia Khan
MBBS Karachi; FCPS Karachi

Faraz Shafiq
MBBS Karachi, FCPS Karachi

Ali Asghar
MBBS Karachi; FCPS Pakistan

Dileep Kumar
MBBS; FCPS Karachi
Ali Sarfraz Siddiqui
MBBS; FCPS Karachi

Irfan ul Haq
MBBS Karachi, FCPS Karachi

Azher Rehman
MBBS Karachi, FCPS Karachi

Nouman Alvi
MBBS; FCARCSI, Dublin, Ireland

Dr. Khalid Ahsan
MBBS Karachi, FCPS Karachi

Senior Instructors: (3)

Tanveer Baig
MBBS Karachi, FCPS Karachi

Mohsin Nazir
MBBS Karachi, FCPS Karachi

Bushra Salim
MBBS Karachi, FCPS Karachi

Instructors: (5)

Fauzia Hassan
MBBS Lahore, MCPS

Zulfiqar Ahmed
MBBS

Asiyah Aman
MBBS, FCPS

Saima Rashid
MBBS

Darshana Maheshwari
MBBS, FCPS

Part Time Faculty: (3)

Professors:

Rehana S. Kamal
MBBS Punjab; FRCA UK
FFARCS Ireland; FCPS (Hon) Pakistan

Ursula Chohan
MBBS Karachi
DRCOG, DA, FFARCS UK
Lecturers:

Zafar Ali Mirza
MBBS Karachi; DA UK

Honorary Faculty: (3)

Najma Amjad
MBBS Karachi; FCPS Pakistan

Salma Sophie
MBBS Karachi
Diplomate American Board of Anaesthesia

Zaki Hussein
MBBS, DA, FFARCSI UK