

## **Orthodontics**

**Orthodontics** is that dental specialty which includes the diagnosis, prevention, interception, guidance and correction of malrelationships of the developing or mature orofacial structures.

The residency programme in Orthodontics was launched in 2003 following the induction of a full time Orthodontist in 2002 to meet the needs of education, patient care, and research in the field of Orthodontics. The clinical training of Orthodontic residents encompasses all aspects of current orthodontic practice including, full treatment cases with bands and brackets, early treatment, adult treatment, craniofacial anomalies, orthognathic surgery and TMJ/occlusion. State-of-the-art knowledge and research findings are applied to patient care in all age groups. Residents learn a variety of treatment modalities under the supervision of an experienced and outstanding faculty.

### **Goals and Objectives**

- To provide structured training to the residents in the specialty of Orthodontics under the supervision of Faculty
- The training will prepare the candidates to undertake a specialty programme in Orthodontics and prepare the candidates to meet the challenges faced by the dental practitioner in the overall care of orthodontic patients
- This process of training will provide the residents a firm basis of knowledge and skills to take Part II Fellowship Examination in Orthodontics conducted by the College of Physicians and Surgeons Pakistan
- To achieve a leadership role and become true role models in the evolving field of Orthodontics in Pakistan

At the end of the four-year Orthodontics Residency programme, the graduate will be able to demonstrate as:

### **Orthodontic Expert**

- Demonstrate diagnostic and clinical skills to effectively and ethically manage a spectrum of patient care problems within the boundaries of his/her specialty
- Access and apply relevant information and treatment options to clinical practice
- Demonstrate expertise in situations other than direct patient care
- Recognise personal limits of expertise
- Demonstrate effective consultation skills

### **Communicator**

- Establish a professional relationship with patients
- Elicit and synthesize relevant information from the patients, their families, and/ or community about their problems
- Discuss appropriate information with the patient, his/her family, and other health care providers that facilitate adequate health care of patients

### **Collaborator**

- Effectively consult with other physicians and health care providers
- Contribute effectively to other interdisciplinary team activities

### **Health Advocate**

- Identify the determinants of health that affect a patient, so as to contribute to improving individual and societal health effectively
- Recognize and respond to those issues, settings, circumstances, or situations in which advocacy on behalf of the patients, profession, or society are appropriate

**Professional**

- Deliver the highest quality care with integrity, honesty and compassion
- Exhibit appropriate personal and interpersonal professional behaviour
- Practice dentistry in an ethically responsible manner that respects the dental, legal, and professional obligations of belonging to a self-regulating body

**Duration of Training**

The Orthodontics Residency Programme will extend over four years, during which period, progressively increasing exposure and responsibilities will be given to the trainees.

**Eligibility**

Degree	House job/ Internship	Fellowship Part-1 (CPSP)	Previous Experience
BDS	One Year	Essential	Not essential

Positions are advertised to invite applicants with the above requirements. The candidates are short-listed based on MCQ entrance test and are called for interviews. Both MCQ’s test and interview will be critical in the selection process. An attempt will be made to make a comprehensive evaluation to determine the candidate’s academic potential and commitment to a busy four- year programme. Two residents will be inducted each year.

**Scope and Content**

The dental services of Aga Khan University Hospital have earned a reputation of excellence in care with integrity. The large number and variety of cases treated by the service is indicative of our ability of delivering superior and quality dental care. The facilities of the dental section include state-of-the art clinics, laboratories, high-tech conference room, and a resident’s work room. Student laboratory is equipped with all necessary equipment for fabricating orthodontic appliances and study models. Research laboratories are separate from the department and located nearby. Our conference room is outfitted with the latest audiovisual technology to assist in presentations and teaching. The resident’s room is designed to be a work space for residents and is provided with networked computers. The Health Sciences Library located within the campus offers the latest books, CD’s, DVD’s and publications, and is linked to most of the libraries worldwide for timely retrieval of orthodontic literature. In addition a state-of-the-art digital OPG and Cephalometric units are housed in the department of Radiology producing excellent quality radiographs catering not only the needs of our own dental/orthodontic services but those of the city too.

The major training sites will include the AKUHDC (Aga Khan University Hospital Dental Clinic), AKU-CMS (Aga Khan University Clifton Medical Services) and AKHSP (Aga Khan Health Services Pakistan) Diagnostic Centres. Major portion of the resident’s clinical time will be spent at AKUHDC in a state of the art clinical facility as extensive and advanced dental services of a wide variety are provided here including care of medically compromised patients. Clinical

work simulates the private practice environment. There are four orthodontic assistants available in the clinic to lend a hand to residents during clinic sessions.

The dental services at Aga Khan University Hospital also maintain the responsibility for inpatient dental care of the hospitalised patients. The patients admitted under other services include complicated cardiac, diabetic, renal, cancer, obstetric and psychiatric patients including patients with blood disorders. The residents would have the opportunity to provide dental treatment to such patients under the supervision and guidance of the Consultant. Emergency room coverage would be provided by the dental service 24 hours, 7 days a week on rotational basis under the overall supervision of on-call consultant.

The residents will also spend sometime on non-dental hospital rotations. First year residents will be required to take 2 weeks rotation each in Emergency Room, Internal Medicine, E.N.T., Haematology, Paediatric Medicine, and Radiology. The dental specialties in which the residents will be rotated include Operative Dentistry and Oral Surgery. Besides there will be a Plastic Surgery rotation for cleft cases. Elective time will be offered to the residents and will be organised on an individual's need basis. They will be encouraged to work and get experience in the community where facilities do exist but lack adequate staffing.

Didactic clinical teaching will be provided at the clinical locations and residents will be encouraged to follow the CPSP course guidelines. There will be weekly dedicated sessions each for journal club, resident's presentation and orthodontic treatment planning where different aspects of patient care will be presented and discussed by the faculty. Residents will be required to present a research project once a year in the surgical grand round.

Residents will be evaluated on a yearly basis which involves a written and a clinical/viva voce component at all levels.

Clinical research is an integral part of the overall activities of the dental service staff. Residents will be required to pursue a clinical research project during their training period. The diverse clinical and research materials that are available at AKUHDC allow for clinical research in a variety of areas.

### **Academic Aspects of the programme**

#### **Scheduled teaching sessions (Lectures, tutorials, resident presentations, teaching rounds, etc.)**

In addition to the activities described above the residents are encouraged to attend other learning activities on the campus especially in the area of Community Health Sciences including Biostatistics and Epidemiology. They are also encouraged to attend other academic activities relevant to their specialty.

#### **Participation in patient care outcomes (morbidity conferences, audits, case discussions, review of outcome, etc.)**

Residents are encouraged to attend the National Conferences held in the major cities of Pakistan and they will be required to present papers at the meetings.

Acquisition of teaching skills: (residents' involvement in teaching junior residents, medical students, dental assistants, nurses, patients, etc.)

#### **Assistance with preparation of dissertation for the CPSP examination**

The residents are encouraged to select topics for dissertations to complete FCPS requirements of CPSP with ongoing guidance and supervision.

**Research opportunities (Support/ guidance to residents for review of clinical experience, presentations, publications, etc.)**

The residents are encouraged to familiarise themselves with research methodology and design. Towards the end of their first year they will be expected to have their own research projects lined up for which constant guidance and supervision will be provided on one to one basis. They will also be encouraged to take advantage of the facilities available in the Department of Community Health Sciences as well as the research grants of the University Research Council.

**Opportunities to attend international conferences**

The residents are provided opportunities to participate in international conferences as per faculty's guidance.

**Positions Available**

There are eight positions in the programme. Two new residents are inducted each year.

**Administrative Set-up**

The department has four full-time and two part-time faculty members.

The Programme Director is Dr Mubassar Fida