



**ADULT ORTHOPEDIC  
RECONSTRUCTIVE SURGERY  
FELLOWSHIP TRAINING PROGRAM**  
Department of Orthopedic Surgery

**TABLE OF CONTENTS**

|       | <b>SECTION</b>  | <b>PAGE</b> |
|-------|---|-------------|
| I.    | Introduction  | ٢           |
| II.   | General Objectives  | ٢           |
| III.  | Specific Objectives   | ٢-٣         |
| IV.   | Admission Requirements  | ٣           |
| V.    | Structure of Training Program<br>A. Duration<br>B. Training Capacity<br>C. Faculty Qualifications | ٣-٤         |
| VI.   | Program Content   | ٤-٦         |
| VII.  | Evaluation & Promotion  | ٧           |
| VIII. | Completion  | ٧           |
| IX.   | Duties, Leaves & Holidays   | ٧           |

**ADULT ORTHOPEDIC  
RECONSTRUCTIVE SURGERY  
FELLOWSHIP TRAINING PROGRAM**  
Department of Orthopedic Surgery

**I. INTRODUCTION**

King Faisal Specialist Hospital and Research Centre (KFSH & RC) has for many years played a leading role in the field of adult reconstructive surgery with well established tertiary level reconstructive surgical services being rendered to patients referred from all areas of the Kingdom. KFSH & RC has been in the privileged position of continuously having orthopedic surgeons from abroad with vast experience and expertise to not only render outstanding tertiary clinical services but also institute research projects which have resulted in numerous publications.

KFSH & RC is therefore considered an appropriate institution where fellows could learn the basic skills as well as the subtleties and intricacies of adult reconstructive surgery in order to equip them and be able to render quality clinical and surgical services to the community at large. Simultaneously, the program will offer the opportunity for academic interaction and research.

**II. GENERAL OBJECTIVE**

The Adult Orthopedic Reconstructive Surgery Fellowship Program will develop fellows' clinical skills that will also learn the principles of orthopedic management to the level of a subspecialist in orthopedic reconstructive surgery, mainly in joint diseases. It will involve a focused exposure at the outpatient, inpatient, and operating room levels to the field of musculoskeletal reconstructive surgery in adults. Included in this are investigative techniques appropriate to the field: regular and standardized radiographs, CT, MRI, ultrasound, evaluation of skeletal metabolism and relevant endocrine balance, with appropriate understanding of related bone and joint tissue biopsies.

Excluded from the fellowship are areas of pediatric orthopedics and spinal care. Musculoskeletal tumors and acute trauma will also be excluded unless implants are to be applied in reconstruction.

**III. SPECIFIC OBJECTIVES**

Included in the fellowship is the development of surgical expertise beyond the level of Saudi/Arab Board Part II certification (or its equivalent) in reconstruction of major joints, corrective realignment osteotomy, fusion, and resection arthroplasty of central and peripheral limb parts.

Also included will be an expectation to complete a research project at the basic or clinical level.

The fellowship program further aims to train orthopedic surgeons' proficiency and competency in the following aspects of joint reconstruction:

- Comprehensive history taking pertaining to all joint reconstructive conditions.
- Selecting and prescribing appropriate investigation modalities such as radiologic, hematologic, and biochemical in order to reach or confirm specific diagnoses.
- Proposing the correct conservative or surgical management options appropriate for each individual patient and be in a position to explain to the family in detail the nature, objectives and implications of the procedures.
- Performing minor and major orthopedic surgical reconstructive procedures, like primary joint replacement and assisting in the revision surgery under the supervision of the consultant.
- Developing practical proficiency to master manipulative, casting and immobilization skills.
- Comprehensively managing patients throughout the perioperative period, timely detecting problems and complications which may result in morbidity.
- Compiling and structuring a comprehensive rehabilitation program for each postoperative case involving paramedical services such as physiotherapy, occupational therapy and orthotic and prosthetic services where applicable.

#### **IV. ADMISSION REQUIREMENTS**

Candidates must have completed a well-structured residency program in Orthopedic Surgery with certification by the Saudi Commission for Health Specialties, or must have at least passed the written examination and registered for the final parts. Other candidates must possess an equivalent certification and approved by the Saudi Commission for Health Specialties.

Candidates must submit recent reference letters from at least three consultants with whom they had worked during the previous four years. They must provide a letter of release and sponsorship from their institution for full time fellowship KFSH & RC for a period of two years. Candidates must also have successfully completed a personal interview with the Program Director, Head of Section, and other members of the Department.

#### **V. STRUCTURE OF TRAINING PROGRAM**

##### ***A. Duration:***

The program commences on the first day of the Gregorian calendar each year. The Adult Orthopedic Reconstructive Surgery fellowship program will be 24 months in duration. An optional extra year may be offered to meritorious fellows to undertake research work in the subspecialty, if the fellow's sponsoring institution would permit it. This can be undertaken at KFSH & RC or can be arranged overseas.

***B. Training capacity:*** The fellowship program can accommodate one clinical fellow every year (maximum of two clinical fellows, F1 and F2), and one research fellow.

### ***C. Faculty Qualifications:***

The fellowship program faculty should be board certified orthopedic surgeons with subspecialty training and at least 5 years or more experience in the field of adult reconstructive surgery. They should have an academic background and experience in postgraduate education training in order to fulfill the comprehensive teaching responsibility and achieve the educational goals of the fellowship program.

The faculty should have expertise and knowledge to identify, coordinate and bring to completion all clinical and basic research projects in which the fellow will be involved that will ultimately result in publication. They should be in a position to guide fellows in the evaluation of investigative methods and interpretation of accumulated data and statistics.

## **VI. PROGRAM CONTENT**

The program will be structured such that at all times optimal patient care is assured, whilst providing the fellows with opportunities to develop clinical skills and surgical dexterity. Fellows will be afforded the opportunity to develop skills in history taking, clinical examination, therapeutic judgment, radiological assessment, practical surgical skills, peri-operative care and rehabilitative aftercare. In addition, fellows will acquire experience in applicable administration, quality assurance, performance improvement and teaching. Fellows will be expected to participate in scientific or clinical projects, ongoing or new, that will ultimately result in publication.

Fellows are expected to also actively participate in all academic activities of the Department and to present at least one Grand Round topic every six months. They must participate in regular literature reviews and reading tasks related to basic theoretical knowledge and advanced clinical information as directed by the consultant. Fellows will be expected to attend a statistic or research course and at least one international conference or refresher course featuring adult reconstruction during the program. Fellows are also requested to do six months rotation outside KFSH & RC that is considered having a high load and specializing in this field.

Fellows are required to do the hospital and unit orientations. They are second on-call and must attend and supervise all the residents' activities, and conduct of examinations with the Program Director, Head of Section, and other medical staff.

---

### **Available Resources for the Program:**

#### **A. Clinical resources**

- 1. Outpatients.** Outpatient clinics are held as follows :
  - Saturday am
  - Sunday full day
  - Monday full day
  - Tuesday am
  - Wednesday am (2 clinics)

Patients referred to the clinics are approved by the Department of Orthopedic Surgery through the medical eligibility system or from other services.

The Department Orthopedic Surgery has the luxury of a consultant in Rehabilitation Medicine and the physiotherapeutic infrastructure to develop and implement postoperative rehabilitation programs. KFSH & RC hosts a well equipped Orthotics and Prosthetic Centre to assist in the rehabilitation.

2. **Inpatients.** Ward C2 is the Orthopedic Department ward which has a complement of 26 beds. The turnover is quick.

3. **Operating room.** Total of more than 40 operating hours are held per week. Most cases performed are major cases; approximately 10 cases a month are minor. OR schedule: full day on Saturday, Sunday, Monday and Tuesday.

The Hospital has a superb infrastructure in place for day surgical and medical surgical cases to be managed in conjunction with other disciplines.

4. **Technological advances** at KFSH & RC include electronic medication, PACS, radiological programs within a superb Radiology Department, C-Bay dictating system, PYXIS, and electronic library access to most orthopedic journals.

5. **Research, basic and clinical** is conducted in conjunction with the Research Centre, and academic activities such as departmental symposia and workshops with Academic and Training Affairs.

## **B. Surgical procedures**

During the rotation, the fellow would be expected to have surgically assisted in, or performed the following elective procedures:

### **□ FEMUR AND TIBIA**

- ✓ Osteotomies around the knee
- ✓ Osteotomies of the pelvis
- ✓ Osteotomies of the proximal femur

### **□ KNEE JOINT**

- ✓ Total knee replacement
- ✓ Revision total knee replacement
- ✓ Custom made prosthesis
- ✓ Aspiration
- ✓ Arthrotomy
- ✓ Synovectomy
- ✓ Soft tissue releases
- ✓ Patella realignment procedures
- ✓ Arthrodesis

## ❑ HIP JOINT

- ✓ Total hip replacement
- ✓ Revision total hip replacement
- ✓ Custom made prosthesis
- ✓ Aspiration
- ✓ Arthrotomy
- ✓ Pelvic osteotomies
- ✓ Arthrodesis

## ❑ UPPER LIMB

- ✓ Total shoulder replacement
- ✓ Arthroscopy shoulder
- ✓ Stabilization procedure shoulder
- ✓ Tendon transfers
- ✓ Osteotomies
- ✓ Arthrodesis

## ❑ INFECTION

- ✓ Drainage of all joints and bones and soft tissue infections

## ❑ FRACTURES AND DISLOCATIONS

- ✓ Casting and splinting of fractures and dislocations
- ✓ Open reduction and internal fixation
- ✓ Open reduction and internal fixation for patients with peri-prosthetic fracture
- ✓ External fixation of fractures
- ✓ Fixation of pathologic fractures
- ✓ All for upper limbs (except hand) and lower limbs

## ❑ TRAUMA

- ✓ All trauma of adult musculoskeletal

## ❑ ORTHOTICS

Fellows should have a working knowledge of, and know when to prescribe the following braces:

- ✓ Spinal bracing techniques
- ✓ Lower limb orthoses
- ✓ AFO
- ✓ KAFO and HKAFO
- ✓ Foot orthotics
- ✓ Knee orthotics
- ✓ Prosthetics

## **VII. EVALUATION AND PROMOTION**

The fellow's level of competence and performance will be evaluated at a frequency determined by the Postgraduate Education Committee and in the manner as detailed in the Policy for Fellowship Training Program.

A fellow's advancement from year to year is contingent upon professional performance and personal growth. The criteria for promotion are as enumerated in the Policy for Fellowship Training Program.

Fellows are assessed continuously during preoperative and postoperative rounds, operating room, emergency room situations, bed side teaching, journal club, and other academic activities. They usually run clinic under consultant supervision and Operating Room and clinical privileges are also monitored.

The fellows' progress and promotion depend on their attendance in departmental activities (at least 75%). They should be on time in operating room, in responding to pages and would do at least one daily patient round. He should be able to come on one of the weekend days to hand over documentation, medical records, and perform research. Also, one of the most important points for a fellow's training is not to overlap with the residents in the operating room.

## **VIII. COMPLETION**

A certificate of fellowship training at KFSH & RC will be awarded upon satisfactory completion of the requirements of the Program.

A special certificate and a Department souvenir will be given to the fellows at the end of their fellowship program and during the Recognition day of the Department.

## **IX. DUTIES, LEAVES AND HOLIDAYS**

Regulations governing duties, leaves and holidays are as stipulated in the Policy for Fellowship Training Program.