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**National Reproductive Medicine & Reproductive  
Surgery  
Fellowship Program  
Riyadh**

**Contents**

**I. Introduction**

**II. Goals and objectives**

**Special objectives**

- 1. Medical expert**
- 2. Communicator**
- 3. Collaboration**
- 4. Manager**
- 5. Health advocate**
- 6. Scholar**
- 7. Professional**

**III Prerequisite & Selection criteria**

**IV Number of fellows recruited**

**V Resources**

**VI Program administration**

**VII Program duration and outline**

**VIII Evaluation**

**IX Certificate**

**X Appointment**

## **I. Introduction**

Fellowship in reproductive medicine and reproductive surgery is a preparation of general obstetrician and gynecologist for subspecialty in reproductive endocrinology which by the end of the rotation the fellow will have a broad knowledge and clinical experience in the subject. The fellowship program will be carried out in governmental and academic institutes which are hosting assisted reproductive units of minimum 500 IVF cycles and 3 full time Reproductive endocrinology and infertility subspecialty sub specialized- consultants.

## **II. Goals and objectives**

The goal of the fellowship program in Reproductive medicine and reproductive surgery is to provide basic training in the subspecialty. By completion of the fellowship program the candidate will be considered as specialist in this field theoretical as well as practical wishing to pursue a career in clinical reproductive medicine & surgery.

The fellow must demonstrate the knowledge and attitude relating to patients special problems and psychological needs of reproductive medicine & surgery cases.

The candidate must go through different sections, which will be based on the special objectives of training program listed below.

### **1-Medical expert / clinical decision maker**

#### **1-1 General Requirements**

The Fellow must have

- a. Diagnostic and therapeutic skills for ethical and effective patients care.
- b. The ability to access and apply relevant information to clinical practice.
- c. Effective consultation services with respect to patients care education and legal opinion.

## **1-2 Specific requirements**

- 1-2-1- The Fellow must demonstrate advanced knowledge of,**
- a. Anatomy, physiology and pathology of human reproductive endocrinology. \
  - b. The etiological causes of infertility male and female.
  - c. The psychological impacts of infertility and its treatment.
  - d. The social effects on couples under advanced fertility treatment.
  - e. Basic screening of infertility couples.
  - f. Indications for laparoscopy, hysteroscopy and any other surgical intervention.
  - g. The principles and concept of assisted reproduction.
  - h. Therapeutic modalities of assisted reproduction, that's included; simple ovulation induction, controlled ovarian hyper stimulation for IUI & IVF procedure.
  - i. Invasive procedures related to assisted reproduction like; ovum pick up, and embryo transfer.
  - j. Pre, intra and post operative requirement of assisted reproduction procedure.
- 1-2-2- The Fellow must demonstrate the expertise in;**
- a. The fellow must understand the embryology of germ cells embryogenesis and spermatogenesis and their stages and its clinical interpretation.
  - b. Immunology and genetics related to reproduction.
  - c. The physiology of conception and reproductive tract related to fertility and reproduction, aspects of basic and applied embryology and the techniques of in vitro fertilization, including assisted fertilization and assisted of sperm.
  - d. Psychosomatic aspects of reproductive endocrinology.
  - e. Basic knowledge of clinical hormones pharmacology.
  - f. Gross and microscopic pathology related to reproductive medicine.
- 1-2-3- The fellow must demonstrate advanced clinical and technical skills in:**
- a. Assisted conception, including ovarian stimulation and the management of hyperstimulation syndrome, sperm and ovum retrieval techniques and management of their complication.

- b. Management of endocrine deficiency state.
- c. Biological and chemical assessment of endocrine function related to reproduction, including experience in the performance and supervision of appropriate endocrine studies.
- d. Expertise in ultrasound of the uterus and ovary in order to perform follicle tracking and diagnosis of early pregnancy and its problems.
- e. Expertise in endoscopic techniques related to the diagnosis and treatment of reproductive problems; including laparoscopic and medical management of ectopic pregnancy.

**1-2-4-The fellow must have knowledge of**

- a. Administration and management.
- b. Teaching
- c. Legal and ethical issues
- d. Epidemiology, statistics, research and audit.

## **2- Communicator**

### **2-1- General Requirements**

**The Fellow must be able to:**

- a. Establish therapeutic relationship with patients and families.
- b. Obtain and synthesize relevant history from patients/ and their husbands.
- c. Listen effectively
- d. Discuss appropriate information with the couple and the health care team.

### **2-2- specific requirement**

**The Fellow must demonstrates**

- a. The ability to obtain informed consent
- b. Evidence of good interpersonal skills when working with patients, and other members of the team.
- c. An understanding of the unique impact of psychological, social, sexual and ethical problems that may arise during the treatment of infertility.

### **3- Collaboration**

#### **3-1- General requirement**

The Fellow must be able to

- a. Consult effectively with other physicians and health care professionals.
- b. Contribute effectively to other interdisciplinary team activities.

#### **3-2- Specific requirements**

The Fellow must

- a. Demonstrates the ability to participate in interdisciplinary and multi specialized team and the ability to respect, consider, and accept the opinion of other members.
- b. Be able to function effectively within a team group.
- c. Demonstrates the ability to work effectively with all health co-workers.
- d. Demonstrates the ability to utilize health care resources necessary to provide best care for infertility cases.

### **4- Manager**

#### **4-1- General requirements**

The Fellow should be able

- a. To manage resources effectively to balance patients care, learning needs and outside activities.
- b. Work effectively and efficiently in a health care organization.
- c. Utilize information technology to optimize patient care, lifelong learning and other activities.

#### **4-2- specific requirements**

The fellow should have

- a. The ability to utilize health care resources necessary for assisted reproduction techniques
- b. Appropriate involvement in the development and improvement.

- c. An understanding of the structure, financing and the operation of the organization.

## **5- Health advocate**

### **5-1- General requirements**

- a. Identify the important determinants of health affecting patients.
- b. Contribute effectively to improve health of patients and communities.
- c. Recognize and respond to those issues where advocacy is appropriate.

### **5-2- specific requirement**

- a. The fellow should have the ability to identify the specific problem of each infertility cases and apply the available knowledge to this beneficial group.

## **6- Scholar**

### **6-1- General requirements**

- a. Develop implement and monitor a personal continuing education strategy.
- b. Critically appraises sources of medical information.
- c. Facilitate learning of patients, residents and other staff.
- d. Contribute to development of new knowledge.

### **6-2- Specific requirements**

The Fellow should be able to function effectively in each of the following areas

#### **A-Research**

- a.1. Develop a lifelong personal for research (for professional development and patients care).
- a.2. Develop collaboration with basic research unit.

#### **B-Education**

- b.1. Ability to access medical resources.
- b.2. Ability to teach nurses and residents

b.3. Ability to present up to date knowledge related to reproductive endocrinology (treatment, diagnostic and technology)

## **7- professional**

### **7-1- General requirement**

The Fellow must

- a. Deliver highest quality care with integrity, honesty and compassion.
- b. Exhibit appropriate personal and interpersonal professional behaviors.
- c. Practice medicine consistent with ethical obligation of physician.
- d. Demonstrates patterns of learning conducive lifelong continuing professional development.

### **7-2- Specific requirement**

- **Discipline based objectives, the fellow will**

- a. Continually self evaluate abilities, knowledge and skills and know the limitation of professional competence
- b. Foster a caring cooperative, compassionate, attitude for patients, their families and friends.

- **Personal / professional boundary objectives, the fellow will**

- a. Be punctual, show self-discipline in obligations on the ward in conferences and other activities, and be a moral and ethic role model for colleagues.
- b. Know how to delegate responsibility and propose plan to solve inter professional conflict.
- c. Have the ability to balance professional life with personal life.

- **Objectives related to ethics, the fellow**

- a. Know the principles of medical ethics as applied to reproductive endocrinology
- b. Know when to refer a case to medical ethics committees
- c. Be able to consult and advise in particular ethics situations
- d. Show respect to patients belief
- e. Know how to deal with professional intimidation and complaints.

### **III. Prerequisite & Selection criteria**

#### **III-1 Prerequisite**

- a. Candidates must be certified in Obstetrics and Gynecology, i.e. Saudi Board, Arab Board or equivalent.
- b. Candidates should have letters of reference from at least three (3) referees who know them professionally.
- c. Candidates must have passed a personal interview by the Fellowship Committee in the Saudi council and the related Department of Obstetrics and Gynecology.
- d. In order to participate in direct patient care under supervision in the complementary program, the overseas candidate should pass the qualifying examinations required in the country.

#### **III-2 Selection criteria**

**III-2-1** the priority for Saudi doctors

**III-2-2** the fellowship program will be announced through Saudi Council in conjunction with recognized institutes for the program.

**III-2-3** the dead line for acceptance applications is end of March of each year.

**III-2-4** the interview with applicants will be the end of April.

**III-2-5** the program will start on October of each year.

**III-2-6** the candidate should pass the selection committee of the Saudi council.

**III-2-7** the candidate has to find an accepting training program following application and acceptance by the Saudi council

#### **IV. Number of fellows recruited**

The total number of fellows in the program will be one fellow per 500 cycles per the 3 years of the program. This number will be reviewed in two years.

#### **V. Resources.**

**V-1** The reproductive medicine section should have a minimum of three full time specialized consultants with minimum 500 IVF cycles.

**V-3** The ambulatory services support high quality care for women and provide care for both partners with disorders of infertility.

**V-4** The emergency services in 24 hours, and admission to support cases during and after working hours

**V-5** Operating rooms are equipped for operative laparoscopy and hysteroscopy procedures.

**V-** The unit should have access to hormonal assays, sperm function testing and embryo culture, biopsy

**V-7** Equipment and experience are available within the Department of Obstetrics and Gynecology, and/or the Department of Radiology for a wide variety of diagnostic studies, including Ultrasonography, hysterosalpingography, computerized tomography and magnetic resonance imaging.

**V-8** An endoscopic laboratory is available to enhance the surgical skills of the fellows.

**V-9** A comprehensive medical library, equipped for computerized literature-searching, contains a wide variety of clinical and basic science journals.

## **VI. Program administration**

The program will be structured by the Fertility Group, which has been nominated by The Scientific Board of Obstetrics and Gynecology in The Saudi council, to supervise the training program. Each recognized hospital should nominate a program director who will report to the Fertility Group.

**The program director will be responsible for;**

- 1- Performing the schedule for fellows
- 2- Implementing the training schedule
- 3- Observing the fellows during the learning process and performance.
- 4- Assisting the fellow in the educational activities and presentations.
- 5- Managing the fellows related matters according to the respective institutional policies.
- 6- Identifying the points of improvements for each fellow and conducting the appropriate solutions.
- 7- Giving the constructive feedback to the fellows to and preparing the interim and final evaluation of each fellow.

### **VI-B The responsibility of the fellow**

The fellow responsibility will be gradually developed by time. According to the schedule and rotations, the candidate will be responsible for working hours and night duties according to the rotating hospital.

### **VI-C leaves**

The fellow entitled for 12 weeks vacation during the 3 years, with no more than 4 weeks during each year period

## **VII Program duration and outline**

The Program will be for 36 months (a maximum of 24 months. It can be in a single center.)

This will be divided in to the following

### **VII-A- ART**

The fellow will achieve the competency in executing and monitoring different ovulation induction, IUI (minimum of 50 cases during whole training period, IVF treatment protocols, IVF procedures OPU (minimum of 300 cases during whole training period),

ET (minimum of 300 cases during whole training period), ultrasound for follicular measurement, ultrasound for early pregnancy, baseline ultrasound, and exposure to the IVF laboratory.

They will develop the ability of patient's counseling for different outcome, and ability to manage different related complications.

The time allocated for this goal is 50 weeks (32% of the training time equivalent to 500 sessions)

### **VII-B-Infertility**

Ability to evaluate infertile couple, formulating treatment plan, and counseling with pros-and cons for different therapeutic options

The time allocated for this goal is 20 weeks (12.6 % of the training time equivalent to 200 sessions)

### **VII-C- Reproductive surgery**

The fellow should achieve the competency in performing the surgical procedures required for Reproductive Medicine Sup –Specialist practice. This will include the ability to choose the most appropriate procedure, counseling the patients for Pros and Cons, dealing with the related complications.

The candidate should attend and perform:

Operative and diagnostic hysteroscopy (minimum of 50 cases during whole training period)

Operative and diagnostic laparoscopy (minimum of 50 cases during whole training period)

The time allocated for this goal is 20 weeks (13% of the training time equivalent to 200 sessions)

### **VII-D- Reproductive endocrinology**

Ability to evaluate patients with different Reproductive problems, including adolescent endocrinology and anatomical issues, post-menopausal HRT counseling, POF patients work up and counseling, osteoporosis prevention and treatment, formulating treatment plan, and counseling with pros-and cons for different therapeutic and preventive options

The time allocated for this goal is 4 weeks (2.6% of the training time equivalent to 40 sessions)

#### **VII-E-Recurrent pregnancy loss and Reproductive immunology:**

Ability to evaluate couples with recurrent pregnancy loss, recurrent implantation failure, formulate treatment plan, and execute various options for intervention.

The time allocated for this goal is 4 weeks (2.6% of the training time equivalent to 40 sessions)

#### **VII-F- PGD**

Ability to evaluate couples who are potential candidate for PGD/PND, formulating treatment plan, and counseling with pros-and cons for different therapeutic options

The time allocated for this goal is 4 weeks (2.6% of the training time equivalent to 40 sessions). This rotation only allowed during 3dr year of fellowship.

#### **VII-G- Elective rotation for 3 months**

Usually the fellow either identify an area in the specialty were they think they would like to have extra training either in the country or internationally. The time allocated for this goal is 12 weeks (7.7% of the training time equivalent to 120 sessions)

#### **VII-H- Clinical Rotations**

The time allocated for this goal is 8 weeks (5% of the training time equivalent to 80 sessions)