



مستشفى الملك فيصل التخصصي ومركز الأبحاث  
King Faisal Specialist Hospital & Research Centre  
Gen. Org. مؤسسة عامة

الشؤون الأكاديمية والتدريب  
Academic & Training Affairs

## ENDOCRINE & BREAST SURGERY FELLOWSHIP TRAINING PROGRAM

Department of Surgery

# **ENDOCRINE AND BREAST SURGERY FELLOWSHIP PROGRAM**

**Department of Surgery**

## **I. INTRODUCTION**

Operations for thyroid cancer and breast cancer are the most frequent procedures done in the Department of Surgery at King Faisal Specialist Hospital & Research Centre (KFSH&RC). Throughout the years, a lot of outreach projects have been initiated to educate surgeons in the management of these diseases. However, these efforts seem to be not enough since there are still a lot of re-operations needed for both breast and thyroid cancer due to sub-optimal management. We believe that one significant way in overcoming this problem is to create groups of surgeons in the country with special education and interest for these patients.

Therefore, we see a Fellowship Program for Endocrine and Breast Surgery as an important step in reaching this goal of creating national societies for these important cancer diseases. It will, then, be possible not only to make and agree on national programs, but also to turn these into reality for the benefit of our patients.

## **II. GOALS AND OBJECTIVES**

We see and operate around 160 new thyroid cancer cases and about 350 new breast cancer cases every year at KFSH&RC. This represents a large portion of all cases in the Kingdom of Saudi Arabia. With the ever increasing number of such cases every year, it is perceived that time will come when it would be impossible to attend to all these. Besides, it will cost a lot to refer all these cases to KFSH&RC. Training Saudi surgeons who will return and work in other hospitals will definitely ease the load and help in the cost containment. Therefore, our aim is to train a general surgeon in clinical, laboratory, and scientific aspects of the discipline of endocrine and breast surgery (EBS). This will enable the surgeon to assume associate or full consultant responsibility for the comprehensive management of patients with endocrine or breast pathology requiring surgery and to provide a consultative service to patients in other services. Additional training could be made available to enable the prospective consultant to function at a more academic level.

## **III. PREREQUISITES**

The applicant must have successfully completed training in an accredited residency training program in General Surgery. He/she must have obtained a Saudi Specialty Certification in General Surgery or its equivalent.

#### **IV. DURATION OF FELLOWSHIP**

The Fellowship Program is for two years.

#### **V. NUMBER OF FELLOWSHIP POSITIONS**

One Fellow will be accepted each year.

#### **VI. QUALIFICATIONS OF THE PROGRAM STAFF**

Members of the consultant staff possess a Saudi Specialty Certificate in General Surgery or its equivalent. They must have at least seven years of qualified clinical experience in General Surgery and at least four years training in EBS. All members should have demonstrated skills in teaching as well as medical research, as evidenced by publications in peer-reviewed journals. One of the consultants is appointed Program Director (Appendix 1).

#### **VII. FACILITIES**

KFSH&RC is a tertiary care referral hospital with more than 500 beds. The EBS Team has access to two half-day outpatient EBS clinics (with 25-35 patients each clinic), one half-day combined endocrine-surgical clinic per week, one half-day combined radiotherapy-surgical clinic per week, one combined endocrine-surgical conference per week, and one combined breast tumor conference per week (Oncology, Pathology, Radiology, Radiotherapy and Surgery).

The EBS Team has one full-day operating room for breast surgery and one for endocrine surgery. Breast cancer is the most common malignancy treated in this Hospital, and we handle 6-8 new patients per week or about 350 per year. Thyroid cancer is the fourth most common malignancy treated in this Hospital with about 160 new patients per year and about 1500 follow-up patients annually.

The EBS Team works in collaboration with Oncology, Endocrinology, Laboratory, Radiology, Nuclear Medicine, Plastic Surgery, ENT, Anesthesia and on a weekly basis with Nephrology, Ob/Gyn, Intensive Care, Infectious Diseases and Cardiovascular Surgery.

The Health Sciences Library of KFSH&RC is available for Hospital staff for information necessary for patient care and research.

#### **VIII. PROGRAM CONTENT**

- A. The Fellow should take part in all EBS activities as per a weekly schedule (Appendix 2).

**B. Operative Training:** The Fellow should take all opportunities to develop his/her operative skills. Upon finishing the training, the Fellow should have developed good experience and skills in the following procedures:

- Thyroid resection
- Hemithyroidectomy
- Total thyroidectomy
- Modified radical neck dissection
- Radical neck dissection
- Sternal split and mediastinal exploration
- Parathyroidectomy
- Removal of parathyroid adenomas
- Subtotal parathyroidectomy
- Parathyroid transplantation
- Adrenalectomy
- Pancreatic exploration and removal of endocrine pancreatic tumors
- Breast core biopsy
- Breast conservative therapy
- Mastectomy (radical and modified radical)
- Axillary node dissection
- Reconstruction of breast (if necessary with assistance) after mastectomy

**C. Endocrinology:** The Fellow will, through participation in combined clinics and conferences, ward rounds, etc., learn the physiology and patho-physiology behind the surgically treatable diseases within the field of Endocrinology. He/she will also learn to judge Pathology, Cytology, Radiology and Nuclear Medicine reports. He/she will, thereby, be able to decide upon the choice of proper treatment and the optimal follow-up program for the patient. The Fellow will specifically gain knowledge on the following:

- $I^{123}$  ( $I^{131}$ ) Thyroid Uptake Scan
- $I^{123}$  ( $I^{131}$ ) Total Body Scan
- Octreotide Scan
- Technetium Scan
- MIBG Scan
- Endocrine tumor markers of all kinds and how to relate the interpretation of the above investigations to physiology and pathophysiology (effect of TSH, F-T<sub>3</sub>, F-T<sub>4</sub>, peptides, etc.)
- MRI

**D. Pathology:** The Fellow will spend one month in the Pathology Department and will be able to see and discuss most of the endocrine and breast cytology and pathology. He/she will also be able to learn to perform cytology.

**E. Breast Cancer:** Through the combined clinics of Oncology and Radiotherapy, the Fellow will learn about chemotherapy and radiotherapy. The weekly breast conference will help him/her learn how to orchestrate and explore the input of data from Radiology, Pathology, Oncology and Surgery, and how to properly decide upon the optimal treatment plan and follow-up program for the patients.

The Fellow will specifically learn to interpret the following:

- MRI
- Mammography of the breasts
- Ultrasound
- Positron Emission Tomography Scan (PET-Scan)
- Computerized Tomography of the breast (CT)
- Bone Scan
- Pathology slides and reports based on analysis of removed breast tissue

- F. *Nephrology and Bone Metabolism:* The Fellow will learn the basic bone metabolism and the sophisticated interaction between kidneys, parathyroids, liver and bone mediated by effects on parathyroid hormones, Vitamin D, Vitamin D metabolites and metabolism, osteoblast and osteoclast activities. These will help him/her understand symptoms, treatment and indications for surgical intervention on patients with surgically correctable diseases when found in a pathophysiological crescendo.
- G. *Reading:* The Fellow will be strongly encouraged to read journals and selected books regularly.
- H. *Scientific Societies:* The Fellow will be introduced to the International Surgical Society and the International Association for Endocrine Surgeons and will be advised to apply for membership in these. They will, likewise, be encouraged to participate in the societies' meetings and thereby create necessary connections with other institutions and surgeons around the world.
- I. *Teaching:* The Department of Surgery has a strong commitment to teaching (journal clubs, pathology conference, grand rounds, case presentations, ward rounds, etc.) of which the EBS has a strong input in which the Fellow will share.
- J. *Research:* The Fellow will be encouraged to participate in on-going research projects in the EBS Team. He/she will learn to design, criticize and execute research protocols and hopefully to develop special research interest and gain responsibility for sizeable projects. This activity will create the basis for on-going research, producing papers for publication in national and international journals.
- K. *Administration:* The Fellow will be presented different administrative obligations within the EBS group and when so needed, within the Department of Surgery, the Hospital, etc.
- L. *Log Book:* This has to be completed for the number of procedures the Fellow is involved in.

*Affiliations with International Centers:*

- European Oncology Institute – Milan, Italy
- Lund University – Sweden
- Adelaide University – Australia

## **Appendix I**

After completion of the last year, the Fellow will be evaluated by the Program Director and the senior staff, the Department Chairman and Academic and Training Affairs (ATA).

### **IX. EVALUATION**

The Fellow will be periodically evaluated by the consultant staff involved in this facility. Performance, skills, attitudes and staff-patient relations will be the focus. A formal evaluation report will be submitted to ATA after discussion with the Fellow, which is subsequently discussed at the PGEC meeting. The Fellow will also be encouraged to evaluate the training program, including the staff, and to make suggestions to improve the program.

### **X. HOLIDAYS**

Regulations governing holidays are as stipulated in the contract between the Fellow and KFSH&RC.

### **XI. EXAMINATION**

A Fellow will sit for promotion examination after his/her first year of training. A final examination will be given after two years of Fellowship training.

### **XII. PROMOTION**

A Fellow's advancement from the first to the second year is contingent upon professional performance, personal growth, and passing the end-of-year examination.

### **XIII. COMPLETION**

A certificate of fellowship training at King Faisal Specialist Hospital & Research Centre will be awarded upon satisfactory completion of the requirements of the program and passing of the final examination.

## **Appendix I**

The outlines of the EBS Fellowship Program has been presented to the following individuals who all have accepted joint responsibility for the training of the fellow in their respective special field of interest and expertise.

- |  |   |                          |
|--|---|--------------------------|
| <input type="checkbox"/> Dr. S. Al-Sobhi | - | Endocrine/Breast Surgery |
| <input type="checkbox"/> Dr. R. Sorbris  | - | Breast Surgery           |
| <input type="checkbox"/> Dr. O. Al-Malik | - | Breast Surgery           |
| <input type="checkbox"/> Dr. S. Bakheet  | - | Nuclear Medicine         |
| <input type="checkbox"/> Dr. W. Mourad   | - | Pathology                |
| <input type="checkbox"/> Dr. A. Tulbah   | - | Pathology                |



## Appendix 2

### ENDOCRINE/BREAST SURGERY TEAM Weekly Schedule

Day	AM	Activity	PM	Activity
Saturday	9:00	Clinic (Comb Breast Ca) (2 <sup>nd</sup> Floor, Oncology Bldg)	1:30	Endocrine Clinic
			4:00	Clinical Presentation
Sunday	7:45	O.R. (Breast Surgery)		O.R. (Breast Surgery)
			4:00	Surg/Pathol Conference (Telemedicine Room)
Monday	8:30	Clinic (Surgical Endocrine)	1:30	Clinic (Breast Surg Onc)
				Ward Rounds (C-3) Administrative Planning
Tuesday	7:45	O.R. (Endocrine)		O.R. (Endocrine) Breast Ca Conf Planning
	9:00	Clinic (Comb Breast Ca)	4:00	GI/Surg-Radiology Conf (X-Ray Conf Rom)
Wednesday	8:00	Grand Rounds (Classroom #4, PGC)	1:30	Surgical Endorsements (C-3 Conf Room)
	9:00	Breast Tumor Conference (Telemedicine Conf Room)	3:00	M&M Conference
			4:00	Journal Club Planning next week's admission