ESSO ACCREDITED TRAINING

FELLOWSHIP IN BREAST SURGERY
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1. BACKGROUND

Breast cancer is the most common cancer in women both in the developed and less developed world. It is estimated that worldwide over 508,000 women died in 2011 due to breast cancer. Incidence rates vary greatly worldwide from 19.3 per 100,000 women in Eastern Africa to 89.7 per 100,000 women in Western Europe. In most of the developing regions the incidence rates are below 40 per 100,000. Evidence has shown that multidisciplinary specialist team evaluation and management for cancer results in better patient outcomes. Similarly, additional training in breast surgical oncology is desirable for those specialists pursuing a career in the management of breast cancer patients.

Since 2008, ESSO has set a core curriculum for specialist trainees in surgical oncology. The curriculum set out a series of recommendations for the knowledge and skills required by oncology surgeons in Europe and the optimal facilities required by an ideal training center in the hope that this would stimulate and harmonize improved training. This would help to ensure that patients in all European member states would have access to the same standard of care, facilitate training opportunities for junior surgeons and encourage the rapid dissemination of new knowledge across Europe by enhancing ease of mobility for specialists. The aim of these qualifications is to provide evidence of expertise in the subject at a level that would be acceptable in all European Countries and to act as a quality standard.

In Europe, EUSOMA has set the standards for the minimal theoretical and practical knowledge required to be certified as a specialist health professional in the field of breast cancer. On the other hand, the UEMS provide with the European Training Requirements for Breast Surgery. Although there are all this guidelines and requirements for Training as a Breast Specialist, there is no Breast Surgical Training Program that is accredited by the ESSO.
Accredited subspecialty training in Europe and USA

In Europe there are several Institutions (UK, Netherlands, Belgium, Italy) that offer Training Programs in Breast Surgery with different duration (from 3 months to 1 year), focused on different techniques (oncoplastic surgery), mostly all of them under the European Guidelines for Training Breast Surgical Specialists. ESGO (European Society of Gynecology Oncology) have an accreditation for Subspecialist Training Programme in Gynaecological Oncology that include training in gynecology oncology and breast for gynecologist specialists.

In the USA, the Society of Surgical Oncology reviews and approves breast oncology fellowship training programs. Strict requirements must be met to be an SSO-approved training program.

With the increasing number of surgeons dedicating their practice to breast cancer patients, there is a need for standardized the training in breast surgical oncology and it is an opportunity for ESSO to give an accreditation of this formally training. Recently, the Working Group of Breast Surgery has been upgraded to Division of Breast Surgery of the UEMS and this provides an excellent opportunity to integrate the EBSQ exam- to the accredited training of Breast Surgical Oncology Specialists by the ESSO.

2. PROGRAM REQUIREMENTS

The Breast Fellowship consists of a minimum of one year of continuous education and training following successful completion of a residency program leading to board eligibility. At least 8 months of this period must be devoted to training in breast surgery. The training must include formal rotations on surgical and nonsurgical breast services. Clinical rotations including nonsurgical breast services are: breast imaging, genetics, pathology, medical oncology, radiation therapy, and research.
These should be accomplished by formal rotations on the involved services, as well as participation in structured multidisciplinary conferences (MDT), and attendance of subspecialty tumor clinics.

Clinical experience alone is insufficient education in the breast fellowship training. Fellows must participate in regularly scheduled didactic programs, such as conferences, lectures, debate series, journal clubs, present relevant literature at multidisciplinary case conferences and attend two educational ESSO Breast Courses. The didactic experience should include not only clinical breast problems, but also translational science, clinical research, and ethical problems.

A portion of the program must be devoted to clinical or laboratory research. Clinical research activities should include among others, the design of clinical protocols, the recruitment of patients to clinical trials, and initiate or participate in an investigative project.

At the end of the program it is encouraged that the Fellow apply for the EBSQ exam.

The program can start anytime in the year depending on the Institution. Also if there is a case where the Fellow wants to rotate in a different Unit for some months, an agreement between Institutions should be obtained in order to fulfill the objectives of the Fellowship.

In some Institutions a two weeks observership may be required.

3. TRAINING OBJECTIVES (Annex 1)

The objective of this fellowship will be to provide subspecialist training to surgeons who wish to have additional specialized training in the multi-modality clinical care specific to the breast patient and training in breast cancer research. Sub-specialization in breast surgical oncology include training in a fully multidisciplinary environment with regular interaction between surgical, medical and radiation oncologists, pathologists, radiologists and a range of other disciplines involved in breast cancer care and breast cancer research. The Fellows will also attend two ESSO breast cancer courses during the period of the Fellowship training.
Objectives of the trainee will be in accordance with the requirements for a full training program in breast surgical oncology. ESSO will establish minimum requirements for a training program to be accredited, in this way; it can include already established programs and new ones.

As part of the Fellowship it is required that the Fellow take the European Board of Breast Surgery at the end of the program.

4. TRAINING INSTITUTIONS (Annex 2)

Approval of institutions as training centers should be based on the EUSOMA requirements of a specialist breast unit. Requirements is that each breast unit must have a core team made up of health professionals from various disciplines who have undergone specialist training in breast cancer beyond that given in their general training.

The institution must provide an appropriate educational environment, ensuring appropriate trainee supervision and responsibility to deliver quality care. The Institution will have to submit an application stating the wish to be accredited for Breast Surgical Training Fellowship.

5. CANDIDATES

Applicants for the ESSO fellowship must meet the following educational qualifications:

1. Hold Board Certified General Surgeon or Gynecology in their country.
2. Graduates of medical schools outside the E.U. must have a valid medical license in an E.U. country
3. Candidates for accreditation in Breast Surgery must hold a current license to practice as a general surgeon, and/or gynecologists
4. Candidates need to be ESSO members at the time of application for the Fellowship and must speak the language of the country where applying for the ESSO accredited Breast Fellowship.
The basis and contents to be covered by the training program are outlined in combined ESSO core curriculum and the requirements for the qualification as a fellow of Breast Surgery (UEMS).

- The candidates must keep a logbook signed off by their mentor or trainer of the operations they have attended as an assistant or operations they have carried out, supervised or unsupervised, and also of the clinics they have attended and the multidisciplinary meetings they have attended. Fellows will be given the opportunity to evaluate the program overall.

- The Candidates need to include the following information:
  
  - Biographical Data
  - Graduate and Postgraduate Education.
  - Letter from the Chairman with whom the applicant have spent the chief residency
  - Letter from two staff doctors under whom the candidate have worked with.
  - Curriculum vitae
  - Letter of interest from the candidate in regards to breast cancer training and academic interests.

- Selection criteria will be made upon:
  
  - Academic excellence
  - Interest in Breast Cancer
  - Letters of Recommendation

- A fee of 500 euros will be paid to the ESSO Office (ETC) to cover the administrative fee for the process of the application
6. **APPLICATION PROCESS**

A web page linked to the ESSOWEB will be the platform to apply for the ESSO accredited Fellowship in Breast Surgery. The Breast Fellowship Registry will assist the trainees who seek information for Breast Training. Applications for the Breast Fellowships will be made on the web. All the Breast Programs with the requirements for each Institution will be available online.

7. **FUNDING**

Funding will be left to the discretion of the participating institution. It is encouraged to fund the Fellowship at least in part of the salary.

ESSO will collaborate in funding the:

- Attendance to two ESSO Breast Courses during the year of the Fellowship
ANNEX 1
OBJECTIVES

At the completion of the training period, the fellow should be able to:

1. Breast Surgery
   - Evaluate and manage common benign and malignant breast conditions.
   - Assess the indications and contraindications for, and demonstrate experience in the performance and interpretation of the results of common procedures, including but not limited to cyst aspiration, fine needle aspiration, percutaneous core biopsy with and without image guidance, punch biopsy of skin.
   - Assess the indications for techniques to optimize cosmetic outcome, minimize surgical trauma, and achieve best oncologic outcome for cancer operations for all major breast procedures, including but not limited to:
     a) Breast conservation - indications and contraindications
        - The predicted aesthetic outcome after breast conservation
        - The role of neoadjuvant systemic treatment in facilitating breast conservation, including indications and contraindications as well as evaluating the response
        - Assessing margin width and ways to improve negative margins
        - Impact of margins on local recurrence and survival
        - Methods to correct poor aesthetic outcome after breast conservation
        Techniques
        Advantages and disadvantages of various localization methods
        - Wide local excision, lumpectomy, guided wire localization
        - IOUS (intraoperative ultrasound guided surgery)
        - ROLL (radioguided occult lesion localization)
        - RSL (radioguided seed localization)
Breast Conservative Oncoplastic techniques
Level I and level II oncoplastic techniques in breast conservation

b) Mastectomy and Reconstruction.
Indications and techniques (Simple, skin sparing, nipple sparing)
Types of reconstruction- implant and autologous
Factors influencing aesthetic outcome after breast reconstruction
- Oncological safety of immediate and delayed reconstruction
- Influence of reconstruction on the patient's quality of life

c) Sentinel node biopsy (SNB)
The sentinel node concept (Injection techniques and type of isotopes)
The indications and contraindications of SNB

d) Axillary lymph node dissection (ALND)
- Anatomy of the axilla
- The indications and contraindications of ALND
- Arm Reverse Mapping

- Demonstrate proficiency in interdisciplinary evaluation and pre-surgical treatment planning with multiple disciplines, including but not limited to radiology, plastic and reconstructive surgery, medical oncology, radiation oncology, medical oncology and pathology
- Identify the indications for and techniques of palliative surgical procedures for locoregional relapse as well as surgical management of primary breast tumor in Stage IV breast cancer.
- Evaluate and manage arm lymphedema as a side effect of breast cancer treatment.

Each breast fellow must participate in a minimum of 50 operative procedures (as surgeon or first assistant). The experience should include diagnostic biopsies, partial mastectomies, mastectomies, axillary node dissections, sentinel node biopsies, and reconstructive procedures.
In addition to open breast procedures, experience with stereotactic and ultrasound guided breast biopsy is desirable.
2. **Breast Imaging**
   - Understand the techniques of diagnostic mammography, including the BI-RADS nomenclature, recommendations for additional views, and identify mammographic characteristics of benign and malignant disease.
   - Understand the basics of breast ultrasound, and distinguish normal breast sonographic anatomy, sonographic characteristics of simple cysts, complex cysts, well-circumscribed probably benign mass, and solid mass of suspicious nature.
   - Demonstrate training in performance of image-guided biopsy techniques.
   - Demonstrate experience in selecting image-guided breast intervention procedures, including but not limited to, ductograms, image-guided (i.e., ultrasound, stereotactic, MRI and others) fine needle aspiration, and core biopsies.
   - Discuss the evolving breast imaging technologies.
   - Evaluate the present indications for and possible future applications of MRI in the management of malignant and benign breast disease.
   - Explain evolving surgical technologies such as percutaneous ablation, core vacuum resection.
   - Discuss the complexities, advantages and disadvantages of breast screening in women at different age groups.

3. **Genetics**
   - Identify patients at high risk for developing breast cancer, including risk factors such as pathologic, familial, genetic, and previous cancer inducing therapies (i.e., childhood radiation).
   - Discuss the epidemiological evidence of the effect of environmental factors (broadly defined as nutrition, lifestyle, pollutants, chemicals, social economic status, etc.) on high-risk patients.
   - Advise patients regarding estimations of risk by contemporary models and risk reduction by screening, medication, and surgery.
   - Review the available clinical trials for breast cancer risk reduction and facilitate the option of participation in such trials.
   - Advise patients regarding indications, usefulness, costs, complications and privacy issues of genetic testing.
4. **Medical Oncology**

- Assess the indications and contraindications for adjuvant systemic chemotherapy and hormonal therapies.
- Describe the mechanism of action; risks, benefits and indications of existing and developing targeted therapies.
- Describe the prominent molecular pathways in the development and progression of breast cancer.
- Describe the most commonly prescribed chemotherapy and hormonal agents and their associated acute and chronic toxicities.
- Identify toxicities of prescribed agents.
- Identify indications, techniques and interdisciplinary coordination required for neoadjuvant treatments.
- Demonstrate experience in the interdisciplinary management of recurrent and metastatic disease including palliative care.

5. **Pathology**

- Explain the benign and malignant pathological aspects of breast disease.
- Understand optimal techniques for orienting, processing and assessing the pathology specimen.
- Explain and evaluate immunohistochemical stains, cytology, and tumor markers and other indicators of prognosis that are relevant to treatment.
- Discuss evolving pathology technology (molecular techniques, etc) and intraoperative indications.
- Knowledge of the different genomic platforms (Mammaprint, Oncotype, PAM 50...) and indications for its use.
- Stage breast cancer clinically and pathologically.
6. **Plastic and Reconstructive Surgery**
   - Demonstrate an understanding of reconstructive and surgical procedures such as: Tissue expander, implant, and a variety of flap reconstruction techniques for immediate and delayed reconstruction in the setting of post mastectomy reconstructive surgery.
   - Understand the general breast plastic procedures such as augmentation and reduction as they relate to total management of women with benign and malignant breast disease.
   - Explain and evaluate the interrelationship of adjuvant therapies on planning and timing of plastic and reconstructive surgery.

7. **Psycho-Oncology**
   - Recognize needs for social support systems for patients and their families throughout diagnosis, treatment, and transition to surveillance, and relapse.
   - Recognize cultural diversity and the different needs of patients and their families with regard to illness and treatment.
   - Recognize patients at psychosocial high risk and identify resources for referral. Discuss complementary therapies/integrated care.

8. **Radiation Oncology**
   - Understand the process the patient experiences undergoing radiation therapy to the breast, including: simulation, treatment planning, treatment delivery, and acute and chronic effects of therapy.
   - Assess the indications and contraindications for and complications of post breast conservation radiation therapy in both ductal carcinoma in situ and invasive carcinomas, post mastectomy radiation therapy.
   - The management of chest wall recurrences.
   - Knowledge of the indications for nodal basins radiation therapy as well as side effects
   - Assess the impact of radiation therapy on various surgical options for reconstruction.
   - Discuss the evolving technologies of partial breast irradiation (intraoperative radiation therapy, Conformational 3D, brachytherapy...).
9. **Research**

- Clinical experience alone is insufficient education in the breast fellowship training. Fellows must participate in regularly scheduled programs, such as conferences, lectures, journal clubs, multidisciplinary case conferences and multidisciplinary CME meetings.

- The didactic experience should include clinical breast problems, but also translational science, clinical research, and ethical problems. The fellow should be able to participate in:
  - Clinical trials development and patient enrollment and prospective and retrospective clinical research.
  - Enrollment in patients in available national protocols.
  - The conduct and critical review of research studies.
  - The preparation of manuscripts suitable for publication.

**Additional Essential Training.** In order to accomplish with the objectives, the fellowship must provide exposure to and experience in the multidisciplinary management of breast disorders. The fellowship must provide opportunities to participate in multidisciplinary clinics, tumor boards, or conferences. Required non surgical rotations include but not limited to:

- **Radiation Oncology** - One month dedicated to learning the principles and practice of radiotherapy, as related to the multidisciplinary management of breast cancer as outlined in the educational objectives.

- **Surgical Pathology** - One-month rotation in the surgical pathology department or a documented equivalent exposure encompassing benign and malignant histology.

- **Medical Oncology** - A minimum of one month dedicated to medical oncology. Fellows should gain experience in evaluating and managing patients receiving chemotherapy, and hormonal therapy.

The rotation may be done during the whole month or distributed during the Fellowship program depending on Institutions.
ANNEX 2

PARTICIPATING INSTITUTIONS

• The institution must provide an appropriate educational environment, ensuring appropriate trainee supervision and responsibility to deliver quality care. The program director or co-director should be a member of ESSO.

• Each breast unit should have a core team made up of health professionals who have undergone specialist training in breast cancer.

• Participating Institutions have to accredit a breast surgery unit with at least 150 new primary breast cancer cases a year and carry at least a weekly multidisciplinary team meeting.

• A description of the Training Environment, facilities and resources to accomplish with the Breast Fellowship (2 pages limit) and a description of the program design that includes the rotation schedule (3 pages limit) is required.

INSTITUTION

Name

Address

Medical school affiliation

Yes No

Does the institution have a Surgery Residency program? Yes No

Does this Institution have own Breast Fellowship program? Yes No

Start Date of the Fellowship (day/month/year) ..........................

End Date of the Fellowship (day/month/year) ..........................
PROGRAM DIRECTOR

Name
Title
ESSO member

CORE FACULTY
Core Faculty that are involved in education/training/mentoring of fellow. The faculty should demonstrate evidence of scholarly activity in breast diseases as evidenced by participation in basic science research; clinical research protocols; or presentations at local, regional, or national meetings.

Please provide a biographical sketch (see biosketch sample) of the core faculty involved in the program.

Please describe the one-year Breast Fellowship program that will include not only surgical and non-surgical rotations but also schedule of MDT, conferences, journal clubs, and all the didactic programs, also include time devoted to research (basic and/or clinical)

EVALUATION
• Each fellow's progress during the program must be formally evaluated in writing and feedback provided to the fellow at least semi-annually by the Breast Fellowship program director and faculty. The fellow should be advised of any deficiencies in time to correct problems prior to completion of the fellowship.
• Fellows will be evaluated by the Faculty in these areas:
  - Cognitive knowledge
  - Clinical Performance
  - Professional Attitude
- Surgical Skills
- Humanistic qualities & Ethics

- Fellows must be given the opportunity to evaluate the program overall, as well as all rotations, conferences, and faculty. The program director should regularly assess the post-training clinical and research activities of past fellows to determine whether the goals of the training programs are being achieved.

**Fellow Academic Accomplishments**

Include a list of fellow scholarly activity. The following types of fellow activity may be included: abstracts/publications; presentations (local, regional, national); grand rounds; basic science; multidisciplinary institutional educational conferences; dedicated research experience.

**FUNDING**

Funding resources from the Institution: Yes  No

Amount per year: ................. Euros

Other Funding:
BIOGRAPHICAL SKETCH

Provide the following information for the applicant, PI, and all key personnel. Please attach a separate biosketch for each person. Follow the sample format for each person found in Biosketch Sample. DO NOT EXCEED FOUR (4) PAGES.

<table>
<thead>
<tr>
<th>NAME</th>
<th>POSITION TITLE</th>
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EDUCATION/TRAINING. (Begin with initial professional education, such as nursing, and include postdoctoral training.)

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE (if applicable)</th>
<th>YEAR(s)</th>
<th>FIELD OF STUDY</th>
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A. Positions and Honors.

B. Selected peer-reviewed publications (in chronological order).

C. Research Support.