

SenoNetwork Meeting

E5. SenoNetwork[□]: Expanding frontiers and reflecting patterns of breast cancer care around the world

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[□]*The name SenoNetwork and its website will change to Breast Centre Network.*

Introduction

According to the European Society of Breast Cancer Specialists (EUSOMA, originally the European Society of Mastology), a Breast Unit (BU) is a group of specialists in breast cancer, not necessarily located in a single geographic location, but with independent buildings within reasonable proximity to allow multidisciplinary work [1].

An online network of Breast Cancer Centres or Breast Units was established in 2004 under the name European Breast Cancer Services (EBCS) as a non-profit joint project between the European School of Oncology (ESO) and EUSOMA. In 2007, the name of the project was changed to SenoNetwork (seno from Latin *sinus*: breast) to encourage an inclusive approach. This name and the website will soon be modified to Breast Centre Network.

SenoNetwork [2] is the first international network of clinical centres exclusively dedicated to the diagnosis and treatment of breast cancer with the aim to promote and improve breast cancer care in Europe and throughout the world. A descriptive overview of breast cancer care facilities is presented from this database.

Materials and methods

The network currently includes 142 BUs located in 38 countries from all continents (as of 18 November 2011). Data derive from a questionnaire filled in by each centre at the time of application for membership. Information includes a description of departments and offered services that can be updated continuously online. Applying for membership is free of charge, and minimum requirements to be an eligible BU are to treat at least 150 new breast cancer cases (any stage) per year and to have at least one dedicated breast surgeon, radiologist and pathologist. Centres that meet mandatory membership criteria (available online) become full members, and those meeting eligibility but not all mandatory criteria may become affiliate members [2]. Application questionnaires are the source of this report.

Results

Between 2004 and March 2010, 87 members from 25 countries joined the network. BUs were mainly European

but also derived from Asia, Australia, and Latin America. Since the launch of the new website in March 2010 until November 2011, 77 original units renewed their membership and 65 new centres were approved to join the network, comprising a total of 142 BUs from 38 countries. The network became 'pancontinental' with the approval for membership of three new BUs located in the African continent. Distribution of BUs by country is shown on the Breast Unit Directory online [2].

Case load is reported according to new breast cancer cases treated the year before application for membership. Thirty nine members (27%) reported treating 150–200 cases per year, 76 units (54%) treated 201–500 cases, whereas 21 centres (15%) reported treating 501–1000 cases per year. Six centres (4%) treated more than 1000 new cases per year. The BU with the highest patient volume treated 3200 new cases the year before application for membership, and is located in India.

All units reported having the recommended core multidisciplinary team composed of Radiology, Breast Surgery, Plastic and Reconstructive Surgery, Pathology, Medical Oncology and Radiation Oncology [1].

Minimum breast imaging equipment – mammography and ultrasound (US) – are available in all centres, whereas breast magnetic resonance imaging (MRI) is available in 129 BUs (91%), which is a recommended but not mandatory criterion. Breast tissue sampling techniques offered by most centres are stereotactic biopsy for 136 members (96%), ultrasound-guided biopsy for 138 (97%), while both techniques are available in 132 BUs (93%). MRI-guided biopsy is available in only 56 centres (39%).

The preferred technique for localizing non-palpable breast lesions is hook-wire or needle localization in 88 institutions (62%) and radio-guided occult lesion localization (ROLL) in 37 (26%). Twelve units (8%) reported using charcoal marking or tattooing for non-palpable lesions, two reported using intraoperative ultrasound, and one institution indicated using radioactive seed localization. Two units reported not using any technique for localizing non-palpable breast lesions.

Axillary ultrasound (US) and US-guided fine-needle aspiration biopsy of suspicious axillary nodes are performed in 114 (80%) facilities as an alternative to upfront sentinel lymph-node biopsy.

Staging of the axilla with sentinel lymph node biopsy (SLNB) is performed in 132 BUs (93%), upfront axillary

dissection in seven (5%), and axillary sampling in three centres (2%). SLNB is performed with blue dye in only seven centres (5%), radio-tracer alone in 67 (51%), and with a combined technique in 58 BUs (44%). The sentinel node is evaluated intraoperatively in 121 (92%) facilities.

Breast reconstruction is offered in all breast centres through at least one plastic reconstructive surgeon collaborating with the unit or a breast surgeon who performs reconstruction. Immediate reconstruction is offered in 139 BUs (98%).

Baseline histopathological studies – such as cytology, haematoxylin and eosin section, frozen section and immunohistochemistry staining – are available in all BU members. Among special studies, fluorescence in-situ hybridization (FISH) for the *HER-2* gene is available in 120 centres (84%), Oncotype Dx in 21 (15%), and MammaPrint in 23 (16%). Seventeen units (12%) report not offering additional analyses to baseline studies.

The following recommended parameters – pathology stage (pT and pN), tumour size (invasive component in mm), histological type, tumour grade, oestrogen receptor/progesterone receptor (ER/PR) status, *HER-2/neu* status, peritumoural/lymphovascular invasion, and margin status – are all included in the final pathology reports of 136 BUs (96%).

Outpatient systemic therapy is provided in 140 centres (98%).

Reported radiotherapy techniques available after breast-conserving surgery are whole-breast radiotherapy in 137 centres (96%) and partial-breast irradiation (PBI) in 119 (84%) (not mutually exclusive). Among units reporting available PBI, it is offered with external beam in 84 centres (70%), with interstitial brachytherapy in 68 (57%), as intraoperative radiotherapy (IORT) in 29 (24%), and targeted brachytherapy in 15 centres (13%) (techniques available not mutually exclusive).

A multidisciplinary meeting (MDM) or tumour board for case management discussion is held in all 142 BUs. Genetic counselling is reported to be available in 133 units (94%) and is offered by a clinical geneticist in only 62 centres (47%). Genetic testing is available in 115 institutions (86%).

A database system is used in 130 BUs (91%), and 105 (81%) of these centres report having a specifically appointed data manager.

According to the optional question ‘who are you?’ posted in the network’s home page, the proportion of visitors who answered was represented by 48% physicians, 34% patients, 12% non-medical health professionals, and 6% health managers (based on more than 500 answers).

Discussion

Our report shows that the initiative of creating a worldwide network of breast cancer centres is feasible

and generates the potential to work in synergy against the most common cancer affecting the female population in the world. Channels to diffuse and promote useful information for health professionals and patients represent a paramount aspect in the battle against breast cancer. Specific information about the disease derives from known sources of scientific medical literature and/or directly from institutional websites. SenoNetwork adds to the potential of these sources by providing unique and useful information for health-care professionals and for patients and their relatives. The website is a user-friendly resource that allows its members to update the directory with a comprehensive description of their centres. The high proportion of patient visitors could suggest the use of this website as a search engine for sources of first or second opinions, especially in close geographical areas.

Other potential uses for this network are to interconnect specialists working in the field of breast cancer, to play an active role in the proposal and validation of guidelines, and to foster training activities among BUs to ensure scientific updates on breast cancer research.

As previously mentioned, there are minimum requirements to be eligible for membership. A description of the full membership criteria and a questionnaire for draft work are available as pdf documents on the website [2].

SenoNetwork membership relies on a self-declared questionnaire based on professional honesty and does not represent a certification. Joining the network could be considered a step towards pursuing the Breast Unit Certification according to EUSOMA requirements [1]. However, being a full member is not the equivalent of holding this certification. Members are encouraged to apply for this evaluation process, but this is neither mandatory nor initiated automatically. Furthermore, being a full member of SenoNetwork does not necessarily guarantee the acquisition of this certification.

Conflict of interest statement

The author of this report has received honoraria for consultancies from SenoNetwork, the European School of Oncology (ESO), and the European Society of Breast Cancer Specialists (EUSOMA).

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References

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- [2] SenoNetwork. Available at: <http://www.senonetwork.org>.