



BREAST CENTRES NETWORK

Synergy among Breast Units

★ Karolinska University Hospital - Stockholm, Sweden

General Information



New breast cancer cases treated per year **550**

Breast multidisciplinary team members **27**

Radiologists, surgeons, pathologists, medical oncologists, radiotherapists and nurses

Clinical Director: Irma Fredriksson, MD, PhD

The breast unit works in a comprehensive mode and uses all facilities located in the Karolinska University Hospital. The unit receives symptomatic patients who can be either referred or self referred. The unit serves the Southern and the Northern part of Stockholm and has regional and national referrals for complicated breast cases and for prophylactic bilateral breast surgery in familial breast/ovarian cancer families. Implant-based breast reconstructions are performed by breast surgeons, autologous reconstructions are performed by reconstructive plastic surgeons. All breast surgeons are accredited by the Swedish Breast Surgeons Society. Adjuvant treatment is delivered by the two departments of Oncology serving patients from Southern and Northern Stockholm. The unit has clinical and experimental translational breast cancer research. All newly diagnosed breast cancers are registered in the national Breast Cancer Quality Registry.

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Available services

- ✓ Radiology
- ✓ Breast Surgery
- ✓ Reconstructive/Plastic Surgery
- ✓ Pathology
- ✓ Medical Oncology
- ✓ Radiotherapy

- ✓ Nuclear Medicine
- ✓ Rehabilitation
- ✓ Genetic Counselling
- ✓ Data Management
- ✓ Psycho-oncology
- ✓ Breast Nurses

- ✓ Social Workers
- ✓ Nutritional Counselling
- ✓ Survivorship Groups
- ✓ Sexual Health Counselling
- ✓ Supportive and Palliative Care
- ✓ Integrative Medicine

Radiology

- ✓ **Dedicated Radiologists** 3
- ✓ **Mammograms per year** 80000
- ✓ **Breast radiographers**
- ✓ **Screening program**
- ✓ **Verification for non-palpable breast lesions on specimen**
- ✓ **Axillary US/US-guided FNAB**
- ✓ **Clinical Research**

Available imaging equipment

- ✓ Mammography
- ✓ Ultrasound
- ✓ Magnetic Resonance Imaging (MRI)

Available work-up imaging equipment

- ✓ Computer Tomography
- ✓ Ultrasound
- ✓ Magnetic Resonance Imaging (MRI)
- ✓ PET/CT scan

Primary technique for localizing non-palpable lesions

- Hook-wire (or needle localization)
- ✓ Charcoal marking/tattooing
- ROLL: radio-guided occult lesion localization

Available breast tissue sampling equipment

- ✓ Stereotactic Biopsy (Mammography guided)
 - ✓ Core Biopsy (Tru-cut)
 - ✓ Vacuum assisted biopsy
- ✓ Ultrasound-guided biopsy
 - ✓ Fine-needle aspiration biopsy (FNAB, cytology)
 - ✓ Core Biopsy
 - ✓ Vacuum assisted biopsy
- ✓ MRI-guided biopsy
 - ✓ Core Biopsy
 - ✓ Vacuum assisted biopsy

Breast Surgery

- ✓ **New operated cases per year (benign and malignant)** 625
- ✓ **Dedicated Breast Surgeons** 8
- ✓ **Surgeons with more than 50 surgeries per year** 7
- ✓ **Breast Surgery beds** 15
- ✓ **Breast Nurse specialists** 4
- ✓ **Outpatient surgery**
- ✓ **Intra-operative evaluation of sentinel node**
- ✓ **Reconstruction performed by Breast Surgeons**
- ✓ **Clinical Research**

Primary technique for staging the axilla

- Axillary lymph node dissection
- ✓ Sentinel lymph node biopsy:
 - Blue dye technique
 - Radio-tracer technique
 - ✓ Blue dye + Radio-tracer
- Axillary sampling

Reconstructive/Plastic Surgery

- Reconstructive/Plastic surgeons** 4
- Immediate Reconstruction available**

Type of breast reconstructive surgery available

- Remodelling after breast-conserving surgery
- Reconstruction after mastectomy:
 - Two-stage reconstruction (tissue expander followed by implant)
 - One-stage reconstruction
 - Autogenous tissue flap
 - Latissimus dorsi flap
 - Transverse rectus abdominis (TRAM)
 - Free-flaps (free TRAM, DIEP, SIEA, gluteal, etc.)
- Surgery on the contralateral breast for symmetry

Pathology

- Dedicated Breast Pathologists** 4

Available studies

- Cytology
- Haematoxylin & eosin section (H&E)
 - Surgical specimen
 - Sentinel node
 - Core biopsy
- Frozen section (FS)
 - Surgical specimen
 - Sentinel node
- Immunohistochemistry stain (IHC)
 - Estrogen receptors
 - Progesterone receptors
 - HER-2
 - Ki-67

Other special studies available

- Fluorescence in-situ Hybridization for HER-2 gene (FISH)
- Oncotype Dx (21-gene assay)
- MammaPrint (70-gene microarray)
- Prediction Analysis of Microarray 50-gene set (PAM 50)
- CISH

Parameters included in the final pathology report

- Pathology stage (pT and pN)
- Tumour size (invasive component in mm)
- Histologic type
- Tumor grade
- ER/PR receptor status
- HER-2/neu receptor status
- Peritumoural/Lymphovascular invasion
- Margin status
- Ki-67, weight of specimen, radicality

Medical Oncology

- Dedicated Breast Medical Oncologists** 7
- Outpatient systemic therapy**
- Clinical Research**

Radiotherapy

Dedicated Radiation Oncologists

Clinical Research

Available techniques after breast-conserving surgery (including experimental)

Whole-Breast RT (WBRT)

Partial breast irradiation (PBI):

External beam PBI

Interstitial brachytherapy

Targeted brachytherapy (MammoSite, SAVI applicator, other devices)

Intra-operative RT (IORT)

Multidisciplinary Meeting (MDM) / Tumour Board (TB)

Regular MDM/TB for case management discussion

Twice a week

Weekly

Every two weeks

Other Schedule

Cases discussed at MDM/TB

Preoperative cases

Postoperative cases

Specialties/services participating in MDM/TB

Radiology

Breast Surgery

Reconstructive/Plastic Surgery

Pathology

Medical Oncology

Radiotherapy

Genetic Counselling

Breast Nurse Service

Psycho-oncology

Further Services and Facilities

Nuclear Medicine

Lymphoscintigraphy

Bone scan

Positron Emission Tomography (PET)

PET/CT scan

Rehabilitation

Prosthesis service

Physiotherapy

Lymph-oedema treatment

Genetic Counselling

Specialist Providing Genetic Counselling/Risk assessment service:

Dedicated Clinical Geneticist

Medical Oncologist

Breast Surgeon

General Surgeon

Gynaecologist

dedicated oncologists and genetic counsellor

Genetic Testing available

Surveillance program for high-risk women

Data Management

Database used for clinical information

Data manager available

Contact details

Clinical Director

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Radiology

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Pathology

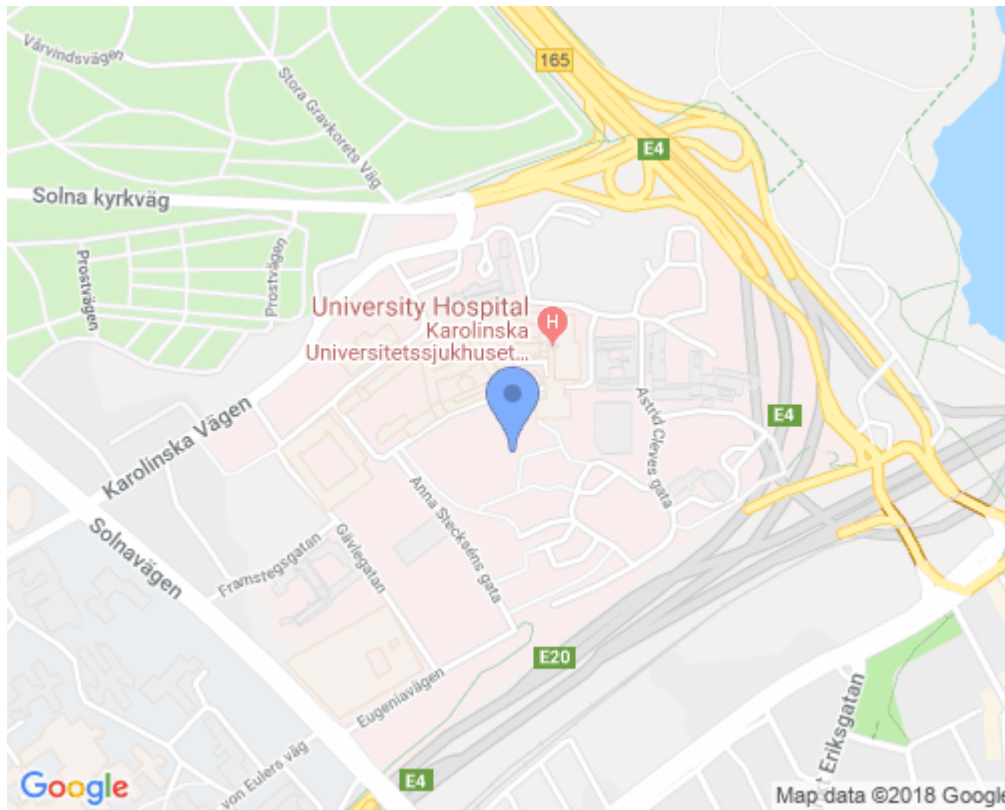
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Radiotherapy

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