New breast cancer cases treated per year  230
Breast multidisciplinarity team members  17
Radiologists, surgeons, pathologists, medical oncologists, radiotherapists and nurses
Clinical Director: Aleksandra Pirjavec Mahic, PhD

Our interdisciplinary activity to breast cancer diagnosis and treatment started more than 20 years ago and the Breast Unit was established in 2010 whose main goal is to optimize breast cancer treatment. The multidisciplinary team is composed by surgeons, plastic and reconstructive surgeons, radiologists, oncologists and pathologists. As a university unit, we are dedicated to science and we take part in national projects. All cases of breast cancer are discussed in an interdisciplinary meeting which takes place once a week at the Institute of Plastic and Reconstructive Surgery, where the breast unit is located. We present preoperative and postoperative cases and the treatment options are based on the state of the art as well as on the individual features of the patients. The main goal is to provide a good quality of life after breast cancer, providing breast-conserving surgery as much as possible, remodelling the breast or reconstructing the breast after mastectomy.

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Web-site: www.kbc-rijeka.hr
Available services

Radiology

- Dedicated Radiologists: 3
- Mammograms per year: 10000
- 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)
- Mamoscintigraphy

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)
- Ultrasound 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): 300
- Dedicated Breast Surgeons: 4
- Surgeons with more than 50 surgeries per year: 3
- Breast Surgery beds: 12
- Breast Nurse specialists: 3
- Outpatient surgery
- Intra-operative evaluation of sentinel node
- Reconstruction performed by Breast Surgeons

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

Social Workers
Nutritional Counselling
Survivorship Groups
Supportive and Palliative Care
Integrative Medicine
Data Management
Psycho-oncology
Breast Nurses
## Reconstructive/Plastic Surgery

- **Reconstructive/Plastic surgeons**: 2
- **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**: 2

### 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)

### 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

## Medical Oncology

- **Dedicated Breast Medical Oncologists**: 4
- **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**
- **mammoscintigraphy**

### 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
  - Genetic Testing available
  - Surveillance program for high-risk women

### Data Management
- **Database used for clinical information**
- **Data manager available**

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<table>
<thead>
<tr>
<th>Contact details</th>
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<tbody>
<tr>
<td><strong>Clinical Director</strong></td>
<td></td>
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<tr>
<td>Aleksandra Pirjavec Mahic, PhD</td>
<td>Head of Institute of Plastic Surgery</td>
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From airport:
From Pleso airport in Zagreb you can reach Rijeka city by highway (140 km). The hospital is in the center, near the train station. It is also possible to come by bus from the airport and it takes about 2 hours.

By train:
The train station is just in front of the main city hospital where we are based. It is possible to come by train from Zagreb in about 3-4 hours.

By bus or sub-way/underground:
The bus station is closed to the hospital and all lines pass close to the hospital.

By car:
It is very easy to reach our hospital as from the center to the west side of the city you pass close to our hospital and directions are well indicated.

Last modified: 14 June 2011