



Diagnosis and Treatment of Patients with Primary and Metastatic Breast Cancer

Breast Cancer Surgery Oncologic Aspects

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Guidelines Breast
Version 2009.1.0



FORSCHEN
LEHREN
HEILEN

Breast Cancer Surgery

Oncologic Aspects

- **Version 2002:**
Untch
- **Versionen 2003–2008:**
**Bauerfeind / Böhme / Costa / Hanf /
Junkermann / Nitz / Rezai / Simon /
Solomayer / Thomssen**
- **Version 2009:**
Gerber / Kaufmann

Further
Information

References

Preoperative Diagnosis

Oxford / AGO LoE / GR

➤ Palpation	5	D	++
➤ Mammography	1a	A	++
- Magnification view of microcalcifications	4	C	+
➤ Ultrasound (breast and axilla)	2b	B	++
➤ Routinely pre-operative MRI	3b	B	+/-
- Lobular invasive BrCa, hereditary BrCa	4	C	+
- Unclear mammography and ultrasound	4	C	+/-
- Histologically proven invasive breast cancer or DCIS	5	D	+/-
➤ Preoperative (image directed) core-needle or (vacuum-) biopsy	2a	B	++
➤ Diagnosis by open biopsy (if alternative available)	2b	B	-

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Perioperative Staging

**Oxford / AGO
LoE / GR**

- **History and physical examination**

5 D ++

High metastatic potential and / or symptoms:

- **Chest X-ray**

5 D +

- **Liver ultrasound**

5 D +

- **CT-scan**

5 D +

- **Bone-scan**

5 D +

- **FDG-PET or FDG-PET / CT**

4 C +/-

- **Whole body MRI**

4 C -

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BCT versus Mastectomy

**Oxford / AGO
LoE / GR**

- **Survival rates after lumpectomy + XRT are equivalent to those after (modified) radical mastectomy** **1a A ++**
- **Local recurrence rates after skin sparing mastectomy are equivalent to those after mastectomy** **2b B ++**
- **Conservation of the NAC (after a tumor-free frozen section of retroareolar tissue) is an adequate surgical procedure in tumors of the periphery of the gland** **4b C +**
- **Survival rates after modified radical mastectomy are equivalent to those after radical mastectomy** **1b A ++**

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Breast Conservation: Surgical Technical Aspects

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	Oxford / AGO LoE / GR		
➤ Wire guided excisional biopsy in non-palpable lesion	2b	B	++
➤ Radionuclide guided localisation of occult lesions	2b	B	+/-
➤ Specimen radiography or ultrasound in non-palpable lesion	2b	B	++
➤ Tumor-free margins required	1a	A	++
➤ Immediate intraoperative re-excision for close margins (specimen radiography and/or intra-operative frozen section)	1c	B	++
➤ Re-excision required for involved margins (paraffin section)	2b	C	++
➤ Therapeutic stereotactic excision alone	4	D	--

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Breast Conservation Surgery

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- | | | | |
|---|-----------|----------|-----------|
| ➤ Multicentricity | 2b | B | - |
| ➤ Positive microscopic margins
after repeated excision | 2b | B | -- |
| ➤ Inflammatory carcinoma | 2b | B | -- |

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Axillary Lymph Node Dissection

Oxford / AGO
LoE / GR

Axillary lymph node dissection (removal of 10+ LN)

- | | | | |
|---------------------------------------|----|---|-----|
| ➤ Endpoint: survival (in free axilla) | 1a | D | +/- |
| ➤ Endpoint: staging | 1a | A | ++ |
| ➤ Endpoint: local control | 2a | A | ++ |

Axillary lymph node dissection (removal of 10+ LN) in case of:

- | | | | |
|--|----|---|----|
| ➤ DCIS | 2b | B | -- |
| ➤ Invasive carcinoma < 1 mm | 2b | B | - |
| ➤ Elderly with T1, receptor-positive, cN0, and G1 tumors | 1b | A | - |
| ➤ SN + | 1b | A | ++ |
| ➤ SN + (mic) | 2a | A | ++ |
| ➤ SN (i+) | 2b | B | -- |

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Sentinel Lymph Node Excision (SNE): Indications

Oxford / AGO LoE / GR

➤ Clinically (cN0) / sonographically neg. axilla	1b A ++
➤ T 1	1b A ++
➤ T 2	2b B +
➤ Multifocal / multicentric lesions	2b B +
➤ DCIS ≥ 5 cm (see DCIS) or if mastectomy is required	2b B +
➤ Before primary chemotherapy	3b C +*
➤ After primary systemic therapy	2b B +/-*
➤ Male breast cancer	2b B +
➤ In the elderly	2b B +

* Study participation recommended

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Sentinel Lymph Node Excision (SNE): Indications

Oxford / AGO LoE / GR

➤ In pregnancy and / or breast feeding	3	C	+
➤ In the mammarian internal chain	2b	B	+/-
➤ Ipsilateral breast recurrence after prior BCS and prior SNE	4	D	+/-
➤ After previous tumor excision	2b	B	+
➤ After axillary surgery	3b	B	-
➤ Axillary lymph node metastases suspected by clinical and sonographic assessment	1b	A	-
➤ Previous major breast surgery (e.g. reduction mammoplasty, mastectomy)	3b	C	+/-
➤ Prophylactic bilateral / contralateral mastectomy	3b	B	--
➤ Inflammatory breast cancer	3b	C	--

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