Diagnosis and Treatment of Patients with early and advanced Breast Cancer

Guidelines Breast
Version 2020.1

Breast Cancer
Follow-Up

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Breast Cancer
Follow-Up

- **Versionen 2002–2019:**

  Bauerfeind / Bischoff / Blohmer / Böhme / Costa / Diel / Friedrich / Gerber / Hanf / Heinrich / Huober / Janni / Kaufmann / Kümmel / Lux / Maass / Möbus / Müller-Schimpfle/ Mundhenke / Oberhoff / Rody / Scharl / Solbach/ Solomayer / Thomssen / Wöckel

- **Version 2020:**

  Kolberg-Liedtke/Möbus

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Breast Cancer Follow-Up Objectives

	Oxford LoE	Oxford GR	AGO
Early detection of curable events			
▪ In-breast recurrence	1a	B	++
▪ Loco-regional recurrence*	1a	B	++
Early detection of contralateral cancers	1a	B	++
Early detection of metastasis			
▪ Early detection of symptomatic metastases	3b	C	+
▪ Early detection of asymptomatic metastases	1a	A	-

* loco-regional recurrence is associated with a higher risk of mortality in node-positive, PR-negative, younger patients and in patients with a short time between primary diagnosis and recurrence

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Breast Cancer Follow-Up Objectives

	Oxford		
	LoE	GR	AGO
▪ Improve quality of life	2b	B	+
▪ Improve physical performance	2a	B	+
▪ Reduction and/or early detection of therapy-related side effects (such as osteoporosis, cardiac failure, fatigue, neurotoxicity, lymphedema, sexual disorders, cognitive impairment, sterility, and secondary tumors) and start of necessary therapies	2b	B	+
▪ Participation in interventional programs during follow-up for breast cancer survivors in order to maximize therapy adherence, assess life-style interventions, and improve quality of life	3b	B	+

Breast Cancer Follow-Up Objectives

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	Oxford		
	LoE	GR	AGO
▪ **Evaluation of current adjuvant therapy**	2b	B	++
▪ **incl. monitoring of adherence to endocrine therapies**			
▪ **Pro-active improvement of therapy adherence**	5	D	++
▪ **Patient information about efficacy data for 5-10 years endocrine therapy**			
▪ **Early therapy of side effects (sports, NSAIDs, vitamin D / calcium)**			

Breast Cancer Follow-Up Objectives

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	Oxford		
	LoE	GR	AGO
▪ **Psycho-social aspects of support and counseling** ▪ Pregnancy, contraception, sexuality, quality of life, menopausal symptoms, fear of recurrence ▪ Inclusion of related persons (partner, family, friends, caregivers)	4	C	+
▪ **Second opinion regarding primary therapy**	2c	B	++
▪ **General counseling (e.g. genetics, HRT, prophylactic surgery, breast reconstruction)**	2c	C	+

Breast Cancer Follow-Up
Recommended Interventions

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Interventions regarding lifestyle risks and comorbidity in order to reduce an unfavorable impact on disease outcome

	Oxford LoE	GR	AGO
▪ **Treatment of type II-diabetes** (> 25% undetected DM in postmenopausal BC patients)	5	D	++
▪ **Weight intervention** (if BMI < 18.5 and -> 30)	2a	B	+
▪ **Nightly fastening > 13h**	2b	B	+
▪ **Reduction of dietary intake (at least 15 % calories from fat) in HR-negative BC is associated with improved overall survival**	2b	B	+
▪ **Stop smoking** (smoking causes 2-fold increase in BC-specific and 4-fold increase in not directly BC-associated mortality)	2b	B	++
▪ **Alcohol consumption reduction (below 6g/d)**	2b	B	+
▪ **Moderate sport (in patients with reduced physical activity prior to diagnosis)**	1b	A	++
▪ **Distress reduction**	3b	B	+

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Nightly fasting

Prolonged nightly fasting improves prognosis in breast cancer patients

retrospective cohort study:

2413 BC-pat. (no diabetes), nightly fasting more or less than 13 hrs

Fasting < 13 hrs: **HR 1.36, 36% increase of risk for recurrence**
HR 1.21, n.s. increase of risk for mortality

every 2-hrs-prolonged fasting was correlated with a 20% increase of sleeping duration

Marinac CR, Nelson SH, Breen CI et al. JAMA Oncol 2016: 2:1049-1055

Routine Follow-Up Examinations in Asymptomatic Patients

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Tests:	Oxford LoE	Oxford GR	AGO
▪ History (specific symptoms)	1a	A	++
▪ Physical examination	1a	B	++
▪ Breast self-examination	5	D	+
▪ Mammography	1a	A	++
▪ Sonography of the breast	2a	B	++
▪ Routine MRI of the breast*	3a	B	+/-
▪ Breast MRI if conventional imaging is inconclusive	3b	B	+
▪ Pelvic examination	5	D	++
▪ DXA-scan at baseline and repeat scan according to individual risk in women with premature menopause or women taking an AI	5	D	+

* Consider in case of increased risk (age <50y, HR-neg., diagnostic assessability C/D in mammography + ultrasound)

Routine Follow-Up Examinations in Asymptomatic Patients

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	Oxford		
	LoE	GR	AGO
▪ Routine biochemistry (incl. tumor markers)	1a	A	-
▪ Ultrasound of the liver	1a	A	-
▪ Bone scan	1a	A	-
▪ Chest X-ray	1a	A	-
▪ CT of chest, abdomen, and pelvis	2a	D	-
▪ Detection of isolated / circulating tumor cells	2a	D	-
▪ PET	2b	B	-
▪ Whole body MRI	2b	B	-

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Early Detection of Potentially Curable Events

	Oxford LoE	Oxford GR	AGO
Locoregional recurrence (chest wall, in-breast):			
▪ Incidence 7–20% (depending on time of F/U)			
▪ **Breast self-examination**	5	D	+
▪ **Physical examination, mammography & US**	1a	A	++
▪ **Magnetic resonance imaging (MRI)***	3a	B	+/-

* Consider in case of increased risk (age <50y, HR-neg., diagnostic assessability C/D in mammography + ultrasound)

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Early Detection of Potentially Curable Events

	Oxford LoE	Oxford GR	AGO
Contralateral breast cancer:			
▪ Relative risk: 2.5–5			
▪ Incidence: 0.5–1.0 % / year			
▪ Breast self-examination	5	D	+
▪ Physical examination, mammography & US	1a	A	++
▪ Routine breast MRI*	3b	B	+/-
Male breast cancer: analogous to BC in women**	5	D	+

* Consider in case of increased risk: age <50y, HR-neg., diagnostic assessability C/D in mammography + ultrasound.

** See chapter “Breast Cancer Specific Situations”

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Early Detection of Potentially Curable Events

	Oxford LoE	Oxford GR	AGO
Unrelated site carcinoma:			
▪ MDS (RR 10.9), AML (RR 2.6–5.3), Colon RR 3.0; endometrium RR 1.6; ovary RR 1.5; lymphoma RR			
▪ Screening for secondary malignancies according to current guidelines	5	D	++
▪ Pelvic examination and PAP smear	5	D	++
▪ Routine endometrial ultrasound / biopsy	1b	B	-

Follow-Up Care for Breast Cancer

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Recommendations for asymptomatic pts.

(mod. according to ASCO-ACS recommendations 2016, NCCN 3.2017 und S3-guidelines 2017**)**

Clinical follow-up		Follow-up*		Screening/ Follow-up
Years after primary therapy		1 2 3	4 5	> 5
History, physical examination, counseling		inv.: every 3 months	inv.: every 6 months	inv.: every 12 months
Self-examination		monthly		
Imaging modalities and biochemistry		indicated only if complaints, clinical findings, or suspicion of recurrence		
Mammo-graphy and additional sonography	BCT**	both sides: every 12 months		
	Mastectomy	contralateral every 12 months		

* Continued follow-up visits if still on adjuvant treatment

** In pts after breast-conserving therapy (BCT): First mammography 1 year after initial mammography or at least 6 months after completion of radiotherapy

Breast Cancer Follow-up
Duration and Breast Nurses

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	Oxford		
	LoE	GR	AGO
▪ **Duration of follow-up**			
▪ up to 5 years	1c	A	++
▪ up to 10 years	1c	A	+
▪ **Surveillance by specialized breast nurses**	2b	B	+/-*

* Studies recommended

Luminal-like, HER2-positive and Triple-negative Breast Cancer Patients

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- **Intrinsic typing of breast cancer leads to the development of subgroups with different courses of disease**
- **Postoperative surveillance should be tailored to specific breast cancer type and their associated time periods of recurrence.**
- **ER-positive patients have a stable risk of recurrence of multiple years. Long term surveillance is recommended.**
- **In contrast, patients with HER2-positive disease and TNBC have an increased risk of recurrence in the early follow up phase. Surveillance should be adjusted accordingly.**

Ribelles et al. BCR 2013