Diagnosis and Treatment of Patients with Primary and Metastatic Breast Cancer

Guidelines Breast
Version 2018.1

Breast Cancer
Follow-Up

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Follow-Up

- **Versionen 2002–2017:**

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

- **Version 2018:**

  Müller-Schimpfle / Solbach

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Breast Cancer Follow-Up Objectives

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

* loco-regional recurrence is associated with higher risk for mortality in node positive, PR negative, younger patients and patients with short time from diagnosis to 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	+
▪ Reduce therapy related side effects such as osteoporosis, cardiac failure, fatigue, neurotoxicity, lymphedema, sexual disorders, cognitive impairment	2b	B	+
▪ Participation in interventional programmes during follow-up for breast cancer survivors to maximise therapy adherence, assess live-style interventions and improve quality of life	3b	B	+

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Breast Cancer Follow-Up Objectives

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

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Breast Cancer Follow-Up Objectives

	Oxford		
	LoE	GR	AGO
▪ **Psycho-social aspects of support and counseling**	4	C	+
▪ **Pregnancy, contraception, sexuality, quality of life, menopausal symptoms, fear of recurrence**			
▪ **Second opinion on primary therapy**	2c	B	++
▪ **General counseling (genetics, HRT, prophylactic surgery, breast reconstruction)**	2c	C	+

Breast Cancer Follow-Up Objectives

Lifestyle risks and comorbidity interventions that reduce unfavorable progression of disease.

	Oxford LoE	Oxford GR	AGO
▪ **Treatment of type II-diabetes** (> 25% undetected DM in postmenopausal BC patients)	5	D	++
▪ **Weight intervention** (if BMI < 18.5 and > 40)	2a	B	+
▪ **Nightly fastening > 13h**	2b	B	+
▪ **Reduction of dietary intake (at least 15 % calories from fat) in HR neg. breast cancer patients is associated with improved overall survival**	2b	B	+
▪ **Smoking cessation** (mortality increased 2 fold, mortality not directly BC associated 4 fold increase)	2b	B	++
▪ **Alcohol consumption reduction (below 6g/d)**	2b	B	+
▪ **Moderate sport (in patients with reduced physical activity prior to diagnosis)**	1b	A	++
▪ **Disstress 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

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Follow-up Objectives Reported by Patients

- **Examination of the breast** — **Oxford LoE 4 C**
- **Reassurance**
- **Guidance of patients, answering questions**
- **Evaluation of treatment and treatment of side effects**
- **Psychosocial support**

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Routine Follow-Up Examinations in Asymptomatic Patients

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	+/-
MRI of the breast in case of inconclusive conventional imaging	3b	B	+
Pelvic examination	5	D	++
DEXA-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

	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	GR	AGO
Local recurrence & in-breast recurrence:			
▪ **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:			
▪ Rel. 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	+/-

* 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	GR	AGO
Unrelated site carcinoma:			
▪ Colon RR 3,0; endometrium RR 1,6 ovary RR 1,5; lymphoma RR 7			
▪ Screening for secondary malignancies according to current guidelines	5	D	++
▪ Pelvic examination and PAP smear	5	D	++
▪ Routine endometrial ultrasound / biopsy	1b	B	-

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Follow-Up Care for Breast Cancer

Recommendations for asymptomatic pts.
(mod. nach ASCO-ACS Empfehlungen 2016, NCCN 3.2017 und S3-Leitlinie 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 by complaints, clinical findings or suspicion of recurrence		
Mammo-graphy and additionally sonography	BCT**	ipsilat.: every 12 months contralat.: every 12 months	on both sides: every 12 months	
	Mastectomy	contralateral every 12 months		

* Continued follow-up visits if still on adjuvant treatment
** In pts with breast-conserving therapy (BCT): First mammography 1 year after initial mammography or at least 6 months after completion of radiotherapy

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Breast Cancer Follow-up
Duration and Breast Nurses

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

*Studies recommended

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

- **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