Guidelines Breast
Version 2024.1D

FORSCHEN
LEHREN
HEILEN

Früherkennung und Diagnostik

Früherkennung und Diagnostik

- **Versionen 2005–2023:**
  Albert / Blohmer / Fallenberg / Fersis / Gerber / Junkermann / Kühn / Maass / Müller-Schimpfle / Scharl / Schreer / Wöckel
- **Version 2024:**
  Fallenberg / Heil

Screened data bases

Pubmed	2018 - 2023
Medline	2018 - 2023
Cochrane	2018 - 2023

Guidelines

S3 Diagnostik, Therapie und Nachsorge des Mammakarzinoms:

1. Wöckel A, Festl J, Stüber T et al. Interdisciplinary Screening, Diagnosis, Therapy and Follow-up of Breast Cancer. Guideline of the DGGG and the DKG (S3-Level, AWMF Registry Number 032/045OL, December 2017) - Part 1 with Recommendations for the Screening, Diagnosis and Therapy of Breast Cancer. Geburtshilfe Frauenheilkd. 2018 Oct;78(10):927-948. doi: 10.1055/a-0646-4522. Epub 2018 Oct 19.
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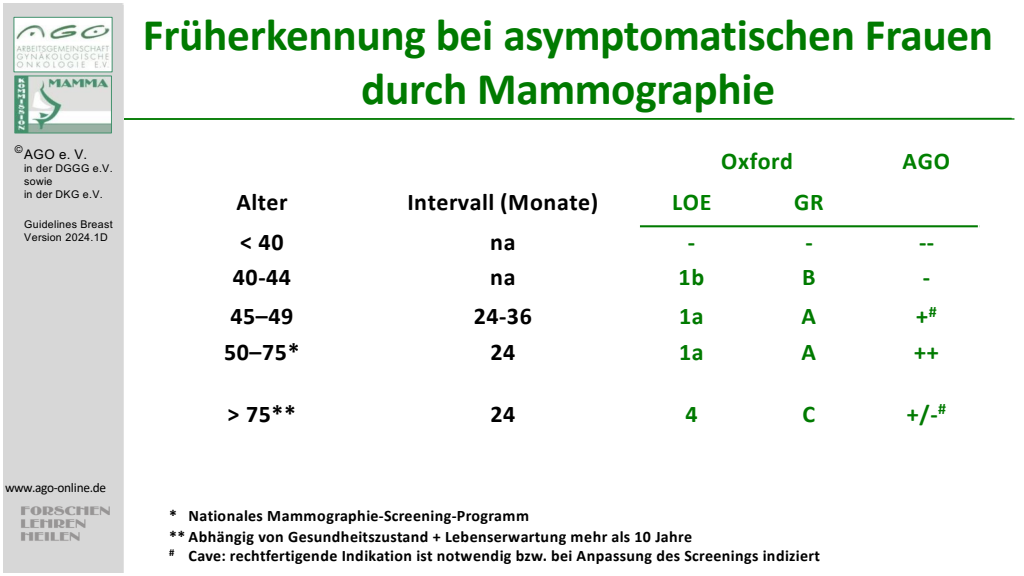
European Commission Initiative on Breast Cancer (ECIBC)

European guidelines on breast cancer screening and diagnosis
https://healthcare-quality.jrc.ec.europa.eu/european-breast-cancer-guidelines
2015 ACS Update Breast Cancer Screening for women at average risk
IARC Handbook 2016
European Commission 2016
(http://ecibc.jrc.ec.europa.eu/recommendations/list/3;Update 24.11.2016, Abruf 20122016)
Screened: Metaanalyses/ Systematic reviews / RCT / Cohort studies



Früherkennung bei asymptomatischen Frauen durch Mammographie

Alter	Intervall (Monate)	Oxford LOE	Oxford GR	AGO
< 40	na	-	-	--
40-44	na	1b	B	-
45–49	24-36	1a	A	+#
50–75*	24	1a	A	++
> 75**	24	4	C	+/-#

* Nationales Mammographie-Screening-Programm
** Abhängig von Gesundheitszustand + Lebenserwartung mehr als 10 Jahre
# Cave: rechtfertigende Indikation ist notwendig bzw. bei Anpassung des Screenings indiziert

1. European Commission Initiative on Breast Cancer (ECIBC): European guidelines on breast cancer screeningand diagnosis (https://healthcare-quality.jrc.ec.europa.eu/sites/default/files/Guidelines/EtDs/ECIBC_GLs_EtD_screening_40-44.pdf)
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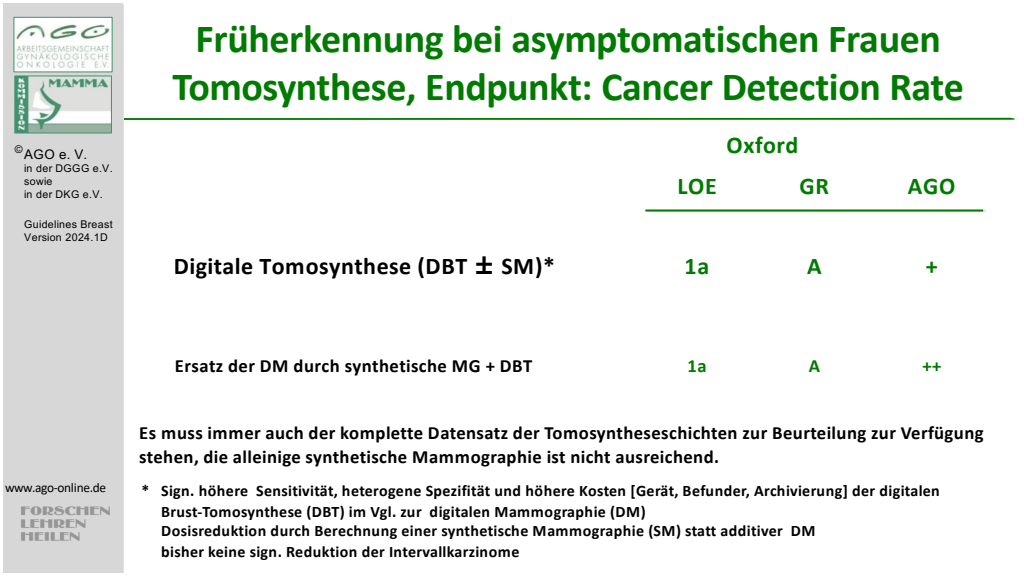

Früherkennung bei asymptomatischen Frauen
Tomosynthese, Endpunkt: Cancer Detection Rate

	Oxford		
	LOE	GR	AGO
Digitale Tomosynthese (DBT ± SM)*	1a	A	+
Ersatz der DM durch synthetische MG + DBT	1a	A	++

Es muss immer auch der komplette Datensatz der Tomosyntheseschichten zur Beurteilung zur Verfügung stehen, die alleinige synthetische Mammographie ist nicht ausreichend.

* **Sign. höhere Sensitivität, heterogene Spezifität und höhere Kosten [Gerät, Befunder, Archivierung] der digitalen Brust-Tomosynthese (DBT) im Vgl. zur digitalen Mammographie (DM)**
Dosisreduktion durch Berechnung einer synthetische Mammographie (SM) statt additiver DM
bisher keine sign. Reduktion der Intervallkarzinome

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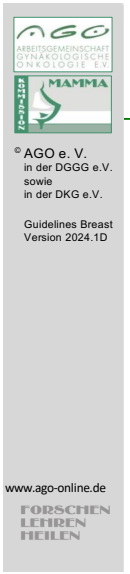

KI zur Detektion in der Mammadiagnostik

	Oxford		
	LOE	GR	AGO
KI im Screening			
Als Second Reader in der Mammographie	1b	B	+/-
Zur Workload-Reduktion (AI alleine)	2b	B	-
Stand alone oder als Second Reader in der Tomosynthese	2a	B	-

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Workload-Reduktion:

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Breastcancer: incidence and mortality risk

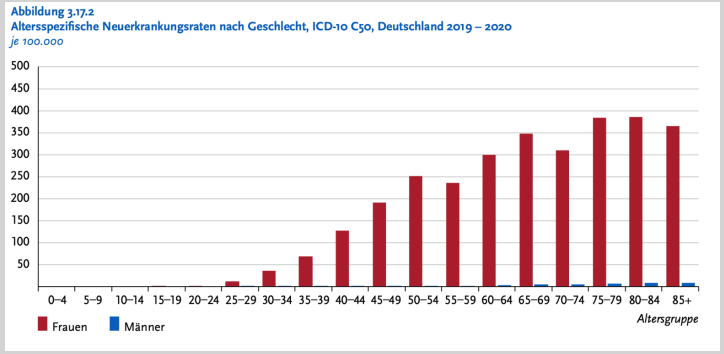
Tabelle 3.17.2
Erkrankungs- und Sterberisiko in Deutschland nach Alter und Geschlecht, ICD-10 C50, Datenbasis 2019

	Erkrankungsrisiko				Sterberisiko			
Frauen im Alter von	**in den nächsten 10 Jahren**		**jemals**		**in den nächsten 10 Jahren**		**jemals**	
35 Jahren	1,0 %	(1 von 99)	13,1 %	(1 von 8)	0,1 %	(1 von 1.000)	3,5 %	(1 von 28)
45 Jahren	2,2 %	(1 von 45)	12,3 %	(1 von 8)	0,2 %	(1 von 410)	3,5 %	(1 von 29)
55 Jahren	2,8 %	(1 von 35)	10,4 %	(1 von 10)	0,4 %	(1 von 230)	3,3 %	(1 von 31)
65 Jahren	3,4 %	(1 von 29)	8,2 %	(1 von 12)	0,8 %	(1 von 130)	3,0 %	(1 von 34)
75 Jahren	3,6 %	(1 von 28)	5,6 %	(1 von 18)	1,3 %	(1 von 77)	2,5 %	(1 von 40)
Lebenszeitrisiko			13,2 %	(1 von 8)			3,5 %	(1 von 28)
Männer im Alter von	**in den nächsten 10 Jahren**		**jemals**		**in den nächsten 10 Jahren**		**jemals**	
35 Jahren	< 0,1 %	(1 von 29.250)	0,1 %	(1 von 750)	< 0,1 %	(1 von 319.800)	< 0,1 %	(1 von 2.500)
45 Jahren	< 0,1 %	(1 von 11.400)	0,1 %	(1 von 760)	< 0,1 %	(1 von 44.700)	< 0,1 %	(1 von 2.500)
55 Jahren	< 0,1 %	(1 von 4.000)	0,1 %	(1 von 790)	< 0,1 %	(1 von 24.400)	< 0,1 %	(1 von 2.600)
65 Jahren	< 0,1 %	(1 von 2.300)	0,1 %	(1 von 890)	< 0,1 %	(1 von 8.400)	< 0,1 %	(1 von 2.600)
75 Jahren	0,1 %	(1 von 1.700)	0,1 %	(1 von 1.100)	< 0,1 %	(1 von 5.650)	< 0,1 %	(1 von 3.000)
Lebenszeitrisiko			0,1 %	(1 von 750)			< 0,1 %	(1 von 2.500)

From:https://www.krebsdaten.de/Krebs/DE/Content/Publikationen/Krebs_in_Deutschland/kid_2023/kid_2023_c50_brust.pdf?__blob=publicationFile

Breastcancer: Age specific new Cancer cases

Guidelines Breast
Version 2024.1D



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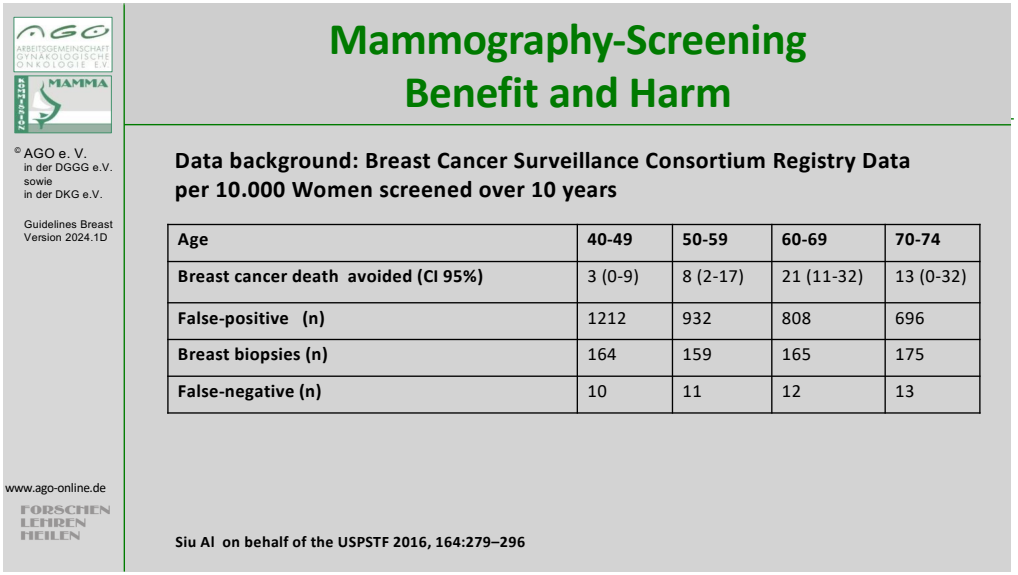
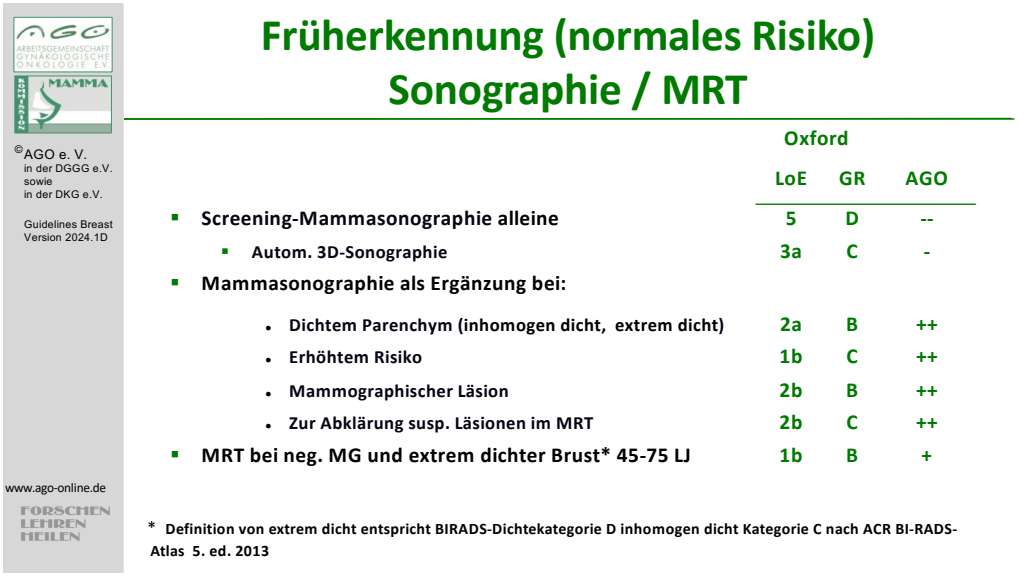


Siu AL, on behalf of the U.S. Preventive Services Task Force
Screening for Breast Cancer: U.S. Preventive Services Task Force
Recommendation Statement. Ann Internal Med 2016 vol 164: 279-296



Früherkennung (normales Risiko)
Sonographie / MRT

	Oxford LoE	GR	AGO
▪ Screening-Mammasonographie alleine	5	D	--
▪ Autom. 3D-Sonographie	3a	C	-
▪ Mammasonographie als Ergänzung bei:			
• Dichtem Parenchym (inhomogen dicht, extrem dicht)	2a	B	++
• Erhöhtem Risiko	1b	C	++
• Mammographischer Läsion	2b	B	++
• Zur Abklärung susp. Läsionen im MRT	2b	C	++
▪ MRT bei neg. MG und extrem dichter Brust* 45-75 LJ	1b	B	+

* Definition von extrem dicht entspricht BIRADS-Dichtekategorie D inhomogen dicht Kategorie C nach ACR BI-RADS-Atlas 5. ed. 2013

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<u>Recommendations International</u>

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Früherkennung
Klinische Untersuchung (clinical breast examination; CBE)

	Oxford		
	LoE	GR	AGO
Als alleinige Untersuchung			
▪ **Selbstuntersuchung (BSE)**	1a	A	-*
▪ **Klinische Brust-Untersuchung (CBE) (außerhalb der Krebsfrüherkennungsuntersuchung (KFU))**	1a	C	-*
▪ **Klinische Brust-Untersuchung (CBE) (im Rahmen der KFU)**	1a	B	++
▪ **Medizinisch-taktile Untersuchung durch Blinde / Sehbehinderte**	3b	C	-
CBE wegen klinisch- / mammo- / sonographischer Läsion	5	D	++
CBE in Kombination mit Bildgebung	1a	A	++

* **Kann Brust-Bewußtsein erhöhen**

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Abklärung von Symptomen

	Oxford		
	LoE	GR	AGO
▪ **Klinische Untersuchung**	3b	B	++
▪ **Mammographie**	1b	A	++
▪ **Tomosynthese*** **	2a	B	+
▪ **Kontrastmittelmammographie (alleine oder zusätzlich)**	2a	B	+
▪ **Sonographie**	2b	B	++
▪ **Elastographie (Shear wave)***	2b	B	+
▪ **Automat. 3D-Sonographie**	3b	B	+/-
▪ **MRT****	2b	B	+
▪ **Minimalinvasive Biopsie**	1b	A	++

* Zusatzuntersuchung
** Wenn klinische, mammographische und sonographische Diagnostik ggf. inkl. Nadelbiopsie keine sichere Einschätzung erlauben.
*** Ersatz der additiven DM durch synthetische Mammographie (SM)

Combined DM + DBT + US + MRI

1. Mariscotti G, Houssami N, Durando M, et al. Accuracy of mammography, digital breast tomosynthesis, ultrasound and MR imaging in preoperative assessment of breast cancer. Anticancer Res. 2014 Mar;34(3):1219-25.

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1. Diepstraten SC, Sever AR, Buckens CFM, et al. Value of preoperative ultrasound guided lymphnode biopsy for preventing completion axillary lymphnode dissection in breast cancer: a systematic review and meta-analysis. Ann Surg Oncol 2014;21:51-59
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MRT

1. Mann RM, Loo CE, Wobbes T et al The impact of preoperative MRI on the re-excision rate in invasive lobular carcinoma of the breast. Breast Cancer Res Treat 2010; 119: 415-422
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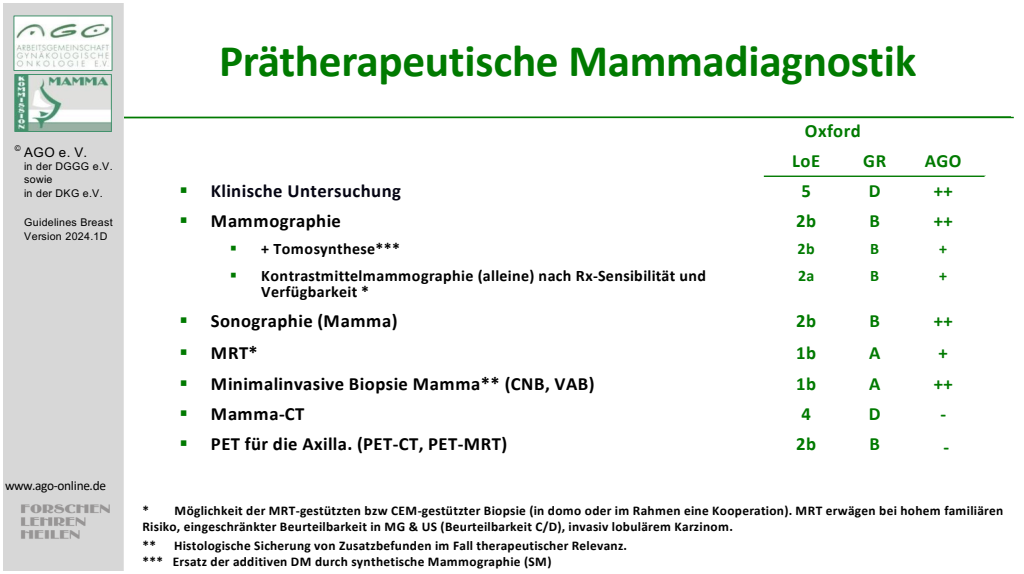

Prätherapeutische Mammadiagnostik

	Oxford LoE	Oxford GR	AGO
▪ Klinische Untersuchung	5	D	++
▪ Mammographie	2b	B	++
▪ + Tomosynthese***	2b	B	+
▪ Kontrastmittelmammographie (alleine) nach Rx-Sensibilität und Verfügbarkeit *	2a	B	+
▪ Sonographie (Mamma)	2b	B	++
▪ MRT*	1b	A	+
▪ Minimalinvasive Biopsie Mamma** (CNB, VAB)	1b	A	++
▪ Mamma-CT	4	D	-
▪ PET für die Axilla. (PET-CT, PET-MRT)	2b	B	-

* Möglichkeit der MRT-gestützten bzw CEM-gestützter Biopsie (in domo oder im Rahmen eine Kooperation). MRT erwägen bei hohem familiären Risiko, eingeschränkter Beurteilbarkeit in MG & US (Beurteilbarkeit C/D), invasiv lobulärem Karzinom.

** Histologische Sicherung von Zusatzbefunden im Fall therapeutischer Relevanz.

*** Ersatz der additiven DM durch synthetische Mammographie (SM)

Combined DM + DBT + US + MRI

1. Mariscotti G, Houssami N, Durando M, et al. Accuracy of mammography, digital breast tomosynthesis, ultrasound and MR imaging in preoperative assessment of breast cancer. Anticancer Res. 2014 Mar;34(3):1219-25.
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US+FNA/CNB

1. Evans A, Trimboli RM, Athanasiou A et al. Breast ultrasound: recommendations for information to women and referring physicians by the European Society of Breast Imaging. European of Breast Imaging (EUSOBI) , with language review by Europa Donna–The European Breast Cancer Coalition. Insights Imaging. 2018 Aug;9(4):449-461. doi: 10.1007/s13244-018-0636-z. Epub 2018 Aug 9.

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MRT

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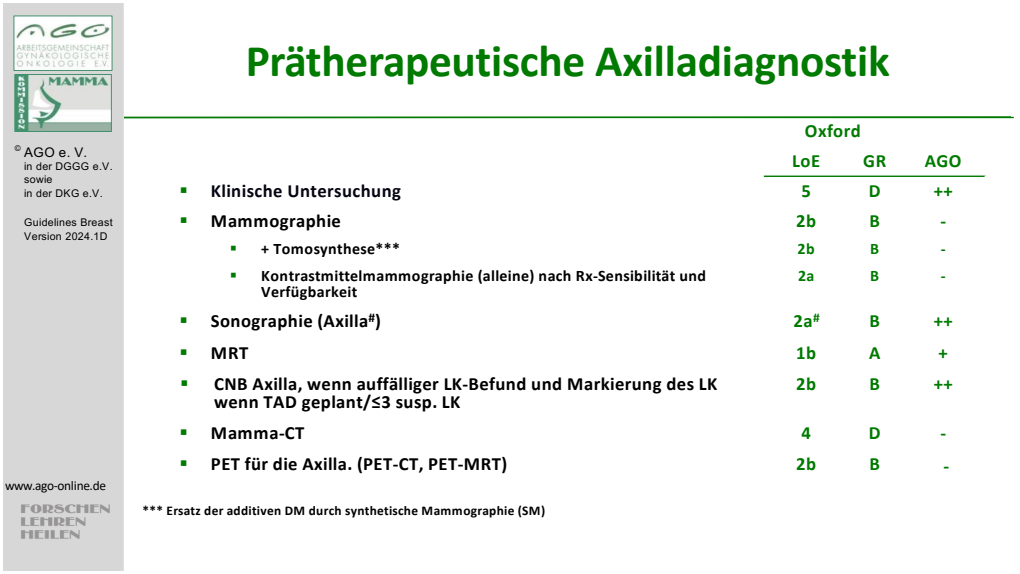

Prätherapeutische Axilladiagnostik

	Oxford LoE	Oxford GR	AGO
▪ Klinische Untersuchung	5	D	++
▪ Mammographie	2b	B	-
▪ + Tomosynthese***	2b	B	-
▪ Kontrastmittelmammographie (alleine) nach Rx-Sensibilität und Verfügbarkeit	2a	B	-
▪ Sonographie (Axilla#)	2a#	B	++
▪ MRT	1b	A	+
▪ CNB Axilla, wenn auffälliger LK-Befund und Markierung des LK wenn TAD geplant/≤3 susp. LK	2b	B	++
▪ Mamma-CT	4	D	-
▪ PET für die Axilla. (PET-CT, PET-MRT)	2b	B	-

*** Ersatz der additiven DM durch synthetische Mammographie (SM)

US-Axilla +FNA/CNB

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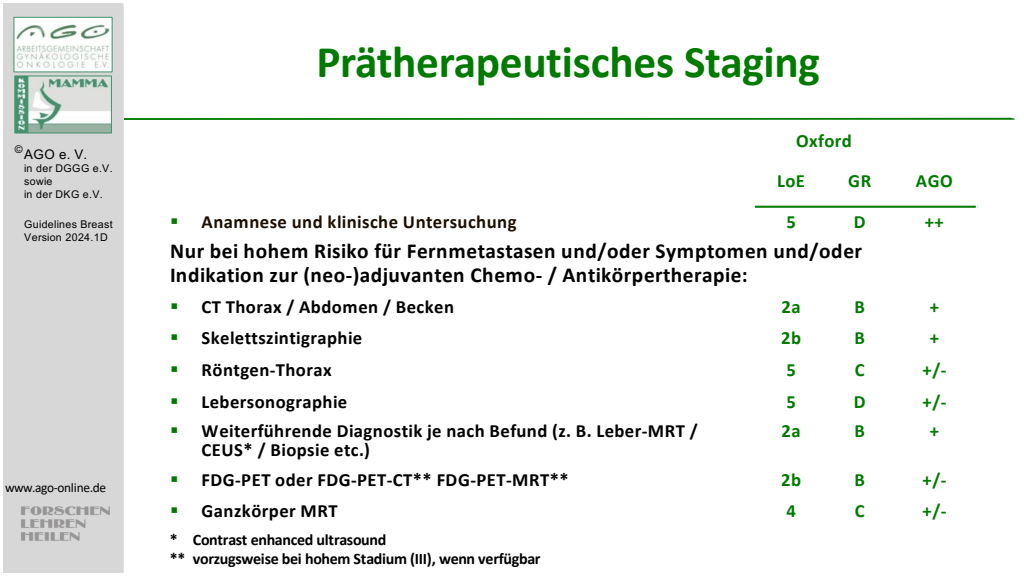

Statement: history and physical examination

1. GCP

Statement: high metastatic potential / symptoms

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