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Canadian Association of Radiologists Breast Disease Imaging Referral Guideline

Candyce Hamel[1], Barb Avard[2], Carolyn Flegg[3], Vivianne Freitas[4], Connie Hapgood[5], Supriya Kulkarni[4], Pam Lenkov[6], and Matthew Seidler[7]

Abstract

The Canadian Association of Radiologists (CAR) Breast Disease Expert Panel consists of breast imaging radiologists, a high-risk breast clinician, a patient advisor, and an epidemiologist/guideline methodologist. After developing a list of 20 clinical/diagnostic scenarios, a systematic rapid scoping review was undertaken to identify systematically produced referral guidelines that provide recommendations for one or more of these clinical/diagnostic scenarios. Recommendations from 30 guidelines and contextualization criteria in the Grading of Recommendations, Assessment, Development and Evaluations (GRADE) for guidelines framework were used to develop 69 recommendation statements across the 20 scenarios. This guideline presents the methods of development and the recommendations for referring asymptomatic individuals, symptomatic patients, and other scenarios requiring imaging of the breast.

Résumé

Le groupe d'experts des maladies du sein de l'Association canadienne des radiologistes (CAR) regroupe des radiologistes spécialisés dans l'imagerie du sein, un clinicien spécialiste des pathologies du sein à risque élevé, un représentant des patients et un épidémiologiste spécialisé dans la méthodologie de l'élaboration de lignes directrices. Après avoir élaboré une liste de 20 scénarios cliniques/diagnostiques, une revue systématique rapide de délimitation du problème a été entreprise pour repérer les lignes directrices de référence produites systématiquement qui fournissent des recommandations pour un ou plusieurs de ces scénarios cliniques/diagnostiques. Des recommandations issues de 30 lignes directrices et critères de contextualisation dans le cadre pour la structure des lignes directrices GRADE (cotation des recommandations, évaluation, développement et évaluations) ont été utilisées pour élaborer 69 énoncés de recommandations couvrant les 20 scénarios. Ces lignes directrices présentent les méthodes d'élaboration et les recommandations concernant l'orientation des sujets asymptomatiques et des patients symptomatiques, ainsi que les autres scénarios où une imagerie du sein est nécessaire.

Keywords

breast disease, screening, surveillance, diagnostic imaging, mammography, supplemental imaging

Introduction

Beginning in November 2021, an Expert Panel (EP) comprised of breast imaging radiologists, a high-risk breast clinician, a patient advisor, and an epidemiologist/guideline methodologist met to develop a new set of recommendations specific to referral pathways for breast disease, including asymptomatic individuals, symptomatic patients, and other scenarios requiring imaging of the breast. Through discussion (via a virtual meeting) followed by offline communication, the EP developed a list of 20 clinical/diagnostic scenarios to be covered by this guideline. These recommendations are intended primarily for referring clinicians (e.g., family physicians, specialty physicians, nurse practitioners); however, they

[1] Canadian Association of Radiologists, Ottawa, ON, Canada
[2] North York General Hospital, Toronto, ON, Canada
[3] Irene and Les Dubé Breast Health Centre, Saskatoon City Hospital, Saskatoon, SK, Canada
[4] Princess Margaret Cancer Centre, Toronto, ON, Canada
[5] St. Clares Mercy Hospital, St. John's, NL, Canada
[6] Women's College Hospital, Breast Clinic and Sunnybrook Hospital, Odette Cancer Centre, Toronto, ON, Canada
[7] Centre hospitalier de l'Université de Montréal, Montréal, QC, Canada

Corresponding Author:
Matthew Seidler, Centre hospitalier de l'Université de Montréal, 1000, Saint-Denis Street, Montréal, QC H2X 0C1, Canada.
Email: matthew.seidler.med@ssss.gouv.qc.ca

Table 1. Recommendation Text, Symbol, and Interpretation.

Recommendation	AGAINST	FOR
STRONG	**Strong, against** "we recommend against" (↓↓) - All or almost all informed people would not recommend/ choose the course of action and only a small proportion would.	**Strong, for** "we recommend" (↑↑) - All or almost all informed people would recommend/ choose the course of action and only a small proportion would not. - Request discussion if the intervention is not offered.
CONDITIONAL	**Conditional, against** "we suggest against" (↓) - Most informed people would not recommend/choose the course of action, but a substantial number would. - This may be conditional upon patient values and preferences, the resources available or the setting in which the intervention will be implemented.	**Conditional, for** "we suggest" (↑) - Most informed people would recommend/choose the course of action, but a substantial number would not. - This may be conditional upon patient values and preferences, the resources available or the setting in which the intervention will be implemented.

Note: Down arrows are red and Up arrows are green when available in colour.
Created using the guidance provided in Andrews and colleagues.[6]

may also be used by radiologists, individuals/patients, and patient representatives.

Our methods describing the guideline development process, including the rapid scoping review to identify the evidence base, has been published in *CMAJ Open*[1] and an editorial to this series of guideline publications is available in *CARJ*.[2] The application of well-established scoping review and rapid review guidance (JBI,[3] Cochrane Handbook,[4] Cochrane Rapid Review Methods Group[5]) and guideline methodology (i.e., Grading of Recommendations Assessment, Development, and Evaluation or GRADE[6,7]) were used to identify the evidence-base and to guide the Expert Panel in determining the strength and direction of the recommendations for each clinical scenario (Table 1). The quality of conduct and reporting of the included guidelines identified in the scoping review were evaluated with the AGREE-II checklist,[8] using a modified scoring system. In instances where guidelines were lacking, expert consensus was used to develop the recommendation. Contextualization to the Canadian health care system was considered for each recommendation, with discussion around the factors found in the Evidence to Decision framework in GRADE for guidelines (e.g., balance of desirable and undesirable outcomes, values and preferences, resources implications).[7]

A systematic search for guidelines (with an a priori defined inclusion criteria) was run in Medline and Embase on January 7, 2022. The search was limited to publications from 2016 onward (Supplementary file Appendix 1). Supplemental searching included the following national radiology and/or guideline groups: the American College of Radiology, the National Institute for Health and Care Excellence, and the Royal College of Radiologists 8th Edition (2017). Recommendations for each clinical scenario were formulated over eight virtual meetings from April to July 2022. External review and feedback were obtained from radiologists, a breast surgical oncologist, emergency physicians, family physicians, a general practitioner in oncology, and a nurse practitioner. The full guideline can be found on the CAR website (www.car.ca).

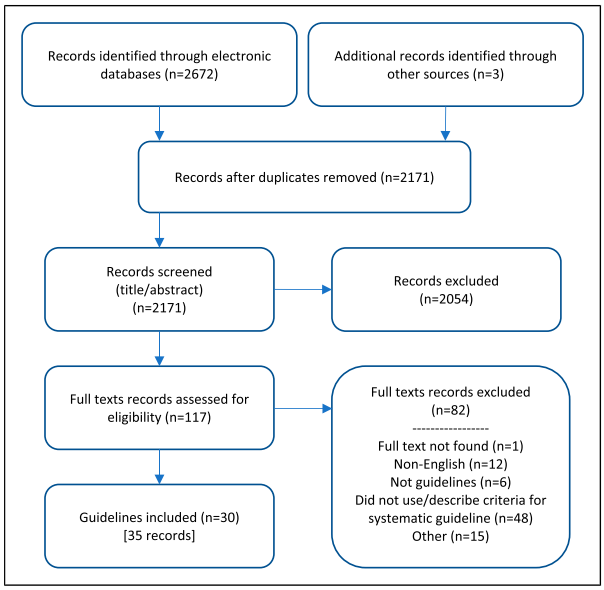


Figure 1. PRISMA flow diagram.

Results

Systematic Scoping Review

A total of 2168 records were identified through the electronic database and three additional records were added from the supplemental search. Thirty guidelines, plus five companion papers, were included (Figure 1 – PRISMA flow diagram).

Table 2. Screening Recommendations.

Clinical/Diagnostic Scenario and Recommendations
B01. AVERAGE RISK SCREENING
B01A. Screening females at average risk (with or without breast implants)[10–18,29–35,37,40–44]
1. In females younger than 40 years old, at average risk of breast cancer, we recommend **against routine mammography** screening (↓↓).
2. In females 40 to 49 years of age, at average risk of breast cancer, we suggest **annual mammography/DBT screening** (↑).[a]
3. In females 50 years of age and older, at average risk of breast cancer, we recommend **mammography/DBT screening** every one to two years (↑↑).[b]
4. In females undergoing screening with mammographically confirmed extremely dense breast tissue (i.e., ACR category D), we suggest **supplementary imaging** (↑).[c]
↳**4.1** In females with mammographically confirmed ACR category C dense breast tissue, we suggest **supplementary imaging**, depending on capacity constraints (↑).[d]
B01B. Screening trans people at average risk[19]
1. In transmasculine people under 40 years of age (with or without bilateral mastectomies) and in transfeminine individuals with no or < 5 years of hormone use, at average risk of breast cancer, we recommend **against routine mammography/DBT screening** (↓↓).
2. In transmasculine people at average risk of breast cancer, aged 40 to 49 years of age, who have not undergone bilateral mastectomies, we suggest **annual mammography/DBT screening** (↑).[a]
3. In transmasculine people at average risk of breast cancer, aged 50 years and older, who have not undergone bilateral mastectomies, we recommend **mammography/DBT screening** every one to two years (↑↑).[b]
4. In transfeminine people at average risk of breast cancer with or without breast implants, aged 40 to 49 years of age, with past or current hormone use for ≥ 5 years, we suggest **annual mammography/DBT screening** (↑).[a]
5. In transfeminine people at average risk of breast cancer with or without breast implants, aged 50 years and older, with past or current hormone use for ≥ 5 years, we suggest **mammography/DBT screening** every one to two years (↑).[b]
B02. HIGH-RISK SCREENING
B02A. Screening females at increased risk (with or without breast implants)[17,18,21,25,26,28,34,35,36]
1. In females at high risk of breast cancer due to prior chest wall irradiation between the ages of 10 to 30 years, we recommend **annual mammography/DBT and MRI** screening starting 8 years after chest irradiation, but not before 25 years of age (↑↑).[e]
↳**1.1** If MRI is not tolerated, contraindicated, or unavailable, we suggest **US** as an alternative imaging technique (↑).
2. In females with BRCA gene mutations, we recommend **annual mammography/DBT and MRI** screening, starting between the ages of 25 and 30 years (↑↑).[f]
↳**2.1** If MRI is not tolerated, contraindicated, or unavailable, we suggest **US** as an alternative imaging technique (↑).
3. The role of screening in females with other high-risk gene mutations is an evolving science and further research is required to guide recommendations in this field. Any decision for screening should be made through shared decision making between the physician and the patient (EPc).
4. In females with lifetime risk of ≥20% (based on risk assessment tool), we suggest **annual mammography/DBT and supplementary screening**, preferably with **MRI**, starting between the ages of 25 and 30 years (↑).[c,f]
B02B. Screening trans people at increased risk[17,19]
1. In transfeminine people at high risk for breast cancer,[g] aged 30 years and older, with past or current hormone use ≥ 5 years, guideline recommendations are identical to those presented in B02A.
2. In transmasculine people at high risk for breast cancer,[g] aged 30 years and older, who have not undergone bilateral mastectomies, guideline recommendations are identical to those presented in B02A.

(continued)

Table 2. (continued)

Clinical/Diagnostic Scenario and Recommendations
B02C. Screening pregnant/lactating persons at increased risk (with or without breast implants)[18]
1. In pregnant people at high risk of breast cancer who choose to continue screening, we suggest **mammography/DBT**[h] **screening and supplemental screening with US**[i] (↑).[j]
2. In lactating people at high risk of breast cancer who choose to continue screening, we suggest that **annual mammography/DBT and MRI screening** resume after one year (↑).[j]

DBT: digital breast tomosynthesis; **MRI**: magnetic resonance imaging; **US**: ultrasound. **Strength of Recommendation:** ↑↑: strong for; ↑: conditional for; ↓: conditional against; ↓↓: strong against; **EPc**: Expert Panel consensus.

[a]The age to begin screening should be made at the individual level and should be jointly assessed by the patient and healthcare provider through a shared decision-making process. This process should involve a discussion which considers the benefits, risks, and patient preference. If the patient requests screening after this discussion, screening should be offered.

[b]The frequency of screening and decision to discontinue screening should be made at the individual level and should be jointly assessed by the patient and healthcare provider through a shared decision-making process. This process should involve a discussion which considers the benefits, risks, patient preference, and life expectancy. If the patient requests screening after this discussion, screening should be offered.

[c]The supplemental screening modality may vary based on regional practice preferences and resource availability.

[d]The capacity for supplementary screening may vary between provinces and between regions within a province.

[e]The decision to discontinue screening should be made at the individual level and should be jointly assessed by the patient and healthcare provider through a shared decision-making process. This process should involve a discussion which considers the benefits, risks, patient preference, and life expectancy. If the patient requests screening after this discussion, screening should be offered.

[f]The decision to initiate and to discontinue screening should be made at the individual level and should be jointly assessed by the patient and healthcare provider through a shared decision-making process. This process should involve a discussion which considers the benefits, risks, patient preference, and life expectancy. If the patient requests screening after this discussion, screening should be offered.

[g]As presented in B02A.

[h]Screening mammography/DBT will have reduced sensitivity due to increased breast density during pregnancy and lactation.

[i]Screening US may increase the false positive rate and prompt additional biopsies.

[j]Breast imaging during pregnancy and lactation is challenging due to physiologic and structural breast changes that increase the difficulty of clinical and radiologic evaluation. The decision to continue screening during pregnancy and lactation should be made at the individual level and should be jointly assessed by the patient and healthcare provider through a shared decision-making process. This process should involve a discussion which considers the benefits, risks, patient preference, expected duration of lactation, and time since last screened. If the patient requests screening after this discussion, screening should be offered.

Potentially relevant guidelines published in languages other than English can be found in Supplementary file Appendix 2. A list of excluded records including justifications for exclusion is available upon request. Most guidelines were rated as moderate or high quality, using the modified AGREE-II checklist[8] (Supplementary file Appendix 3). The number of guidelines included per clinical/diagnostic scenario ranged from zero to 17, with a median of three guidelines per clinical scenario.

Recommendations

Additional details of the included guidelines, including which imaging modalities (e.g., mammography, digital breast tomosynthesis [DBT], magnetic resonance imaging [MRI], ultrasound [US]) that were discussed can be found in Supplementary file Appendix 4.

A guideline is intended to guide and not be an absolute rule. Medical care is complex and should be based on evidence, a clinician's expert judgment, the patient's circumstances, values, preferences, and resource availability. Not all imaging modalities are available in all clinical environments, particularly in rural or remote areas of Canada. Decisions about patient transfer, use of alternative imaging or serial clinical examination and observation can be difficult. Therefore, the expected benefits of recommended imaging, risks of travel, patient preference, and other factors must be considered. The guideline recommendations are to assist the choice of imaging modality in situations where it is deemed clinically necessary to obtain imaging.

Recommendations do not specify when contrast should or should not be used, as this may vary based on clinical presentation, regional practice preferences, preference of the referring clinician, radiologist and the patient, and resource availability.

As sex differences influence cancer susceptibility at the genetic and molecular levels and sex hormones affect the development of different cancers,[9] several recommendations in this guideline are biological sex-specific. For this reason, where appropriate, the terms female and male are used in these recommendations to apply to the individuals who would have been assigned a sex at birth of either male or female.

We reviewed relevant recommendations related to the 20 clinical/diagnostic scenarios previously published by radiology and specialty societies, including: the Canadian Association of Radiologists,[10] the American College of Obstetricians and Gynecologists,[11,12] the American College of Physicians,[13,14] the American College of Radiology and Society of Breast Imaging,[15] the American College of Radiology,[16–27] the American Society of Clinical Oncology,[28] the Brazilian guideline,[29] the multi-organizational Brazilian guideline (Brazilian College of Radiology and Diagnostic

Table 3. Symptomatic Patients Recommendations.

Clinical/Diagnostic Scenario and Recommendations
B03. SYMPTOMATIC PATIENTS
B03A. Palpable mass[10,18,21,34,35,38,40]
1. In females under 30 years of age with a palpable breast mass, we recommend **targeted US** of the area of clinical concern as the initial imaging technique (↑↑). ↳ **1.1** If US findings are negative, we recommend that any decision for further work-up should be based on radiologist discretion and/or clinical grounds (EPc). **2**. In females 30 years of age and older with a palpable breast mass, we recommend **mammography/DBT and targeted US** of the area of clinical concern as the initial imaging techniques (↑↑). 3. In females of any age with a palpable breast mass that is clinically concerning for malignancy, and mammography and US are negative, we recommend that any decision for further intervention (e.g., palpation-guided biopsy, MRI) should be based on clinical grounds (EPc).
B03B. Suspicious nipple discharge[10,22,38]
1. In females, at any age, with physiological nipple discharge,[a] we recommend **against imaging** (↓↓). **2**. In females under 30 years of age with non-physiological nipple discharge, we recommend **targeted US of the retroareolar region** as the initial imaging technique (↑↑). **3**. In females 30 years of age and older with non-physiological nipple discharge, we recommend **mammography/DBT and targeted US of the retroareolar region** as the initial imaging techniques (↑↑). ↳ **3.1** If the mammography and US are negative or inconclusive, we recommend **MRI or ductography** as the next imaging technique (↑↑). ↳ **3.2** If all imaging is negative, we recommend that any decision for further work-up be based on clinical grounds, with consideration for surgical consult (EPc).
B03C. Suspected Paget's disease of the breast/nipple[10,38]
1. In females with clinical suspicion of Paget's disease, we recommend **mammography/DBT ± US** as the initial imaging techniques (↑↑). ↳ **1.1** If mammography ± US are negative but clinical findings remain suspicious for Paget's disease, we recommend that any decision for further intervention (e.g., punch biopsy, MRI) should be based on clinical grounds (EPc)**.**
B03D. Suspected inflammatory breast cancer[10,38,40]
1. In females with clinical suspicion of inflammatory breast cancer,[b] we recommend **mammography/DBT and US** as the initial imaging techniques (↑↑). ↳ **1.1** If mammography and US are negative but clinical findings remain suspicious for inflammatory breast cancer, we recommend that any decision for further intervention (e.g., punch biopsy, MRI) should be based on clinical grounds (EPc)**.**
B03E. Suspected axillary lymphadenopathy[38]
1. In patients under 30 years of age with a palpable area of concern in the axilla, we suggest **axillary US** as the initial imaging technique (EPc). **2**. In patients 30 years of age and older with a palpable area of concern in the axilla, we recommend **axillary US ± diagnostic mammography/DBT** as the initial imaging techniques (↑↑). ↳ **2.1** In patients with bilateral axillary lymphadenopathy on an otherwise normal mammogram AND systemic disease that is known to account for the lymphadenopathy, we recommend **against further imaging** (↓↓).
B03F. Pregnant/lactation symptomatic patients[10,18,21]
1. In symptomatic[c] pregnant and lactating patients, we recommend **targeted US** as the initial imaging technique (↑↑). ↳ **1.1** In patients with US findings that are indeterminate or suspicious, we recommend **mammography/DBT** as the next imaging technique (↑↑). ↳ **1.2** In patients with clinical findings that are concerning for malignancy, and US and mammography are negative, we recommend that any decision for further intervention (e.g., palpation-guided biopsy) should be based on clinical grounds (EPc).
B03G. Male symptomatic patients[22,23,34,35,40]
1. In males, of any age, with symptoms and physical examination consistent with gynecomastia or pseudogynecomastia, we recommend **against imaging** (↓↓).

(continued)

Table 3. (continued)

Clinical/Diagnostic Scenario and Recommendations
2. In males under the age of 25 presenting with suspicious physical examination findings,[d] we recommend **targeted US** as the initial imaging technique (↑↑).
3. In males 25 years of age and older, with suspicious physical examination findings,[d] we recommend **diagnostic mammography/DBT or US** as the initial imaging technique (↑↑).
B03H. Pediatric/adolescent symptomatic patients
No guidelines were identified specific to the pediatric and adolescent population. Therefore, recommendations were formulated based on clinical expertise, while considering values and preferences, equity, accessibility, costs, and resources.
1. In paediatric and adolescent[e] patients presenting with a palpable area of concern, we suggest **targeted US** as the initial imaging modality (EPc).
2. In paediatric and adolescent[e] patients presenting with a palpable area of concern, we recommend **against mammography** (EPc).

DBT: digital breast tomosynthesis; **MRI**: magnetic resonance imaging; **US**: ultrasound. **Strength of Recommendation:** ↑↑: strong for; ↑: conditional for; ↓: conditional against; ↓↓: strong against; **EPc**: Expert Panel consensus.
[a]Physiological discharge can be characterized as non-spontaneous, bilateral, originating from multiple ducts, and white/green/yellow/black in colour.
[b]Rapid onset of erythema, edema, and a peau d'orange appearance, and/or abnormal breast warmth, with or without a palpable mass, AND erythema that covers at least one third of the breast, AND symptoms that have been present for less than 6 months.[45]
[c]For example: palpable breast mass, clinically non-physiological nipple discharge or skin changes.
[d]For example: palpable breast mass, axillary adenopathy, nipple discharge, nipple retraction.
[e]<18 years of age.

Table 4. Other Clinical/Diagnostic Scenario Recommendations.

Clinical/Diagnostic Scenario and Recommendations
B04. PREVIOUS DIAGNOSIS OF A HIGH-RISK LESION[16,20,30]
1. In females with a previous diagnosis of a high-risk lesion,[a] we recommend annual **mammography/DBT** screening beginning at diagnosis, but not earlier than 30 years of age (↑↑).
↳ **1.1** In females with extremely dense breast tissue (i.e., ACR category D), we suggest annual **MRI** as an adjunct (↑).
↳ **1.2** In females where MRI is not tolerated, contraindicated, or unavailable, we suggest screening **US** as a substitute (↑).
B05. ASSESSMENT OF BREAST IMPLANTS[10,24,40]
1. In asymptomatic people, with breast implants of any type, we recommend **against imaging for implant evaluation** (↓↓).
2. In people with saline breast implants and clinically definitive rupture, we recommend **against imaging** (↓↓).
3. In people under 30 years of age with suspected breast implant complications, we recommend **US** as the initial imaging technique (↑↑).
4. In people 30 years and older with suspected breast implant complications, we recommend **mammography/DBT and US** as the initial imaging techniques (↑↑).
5. In people with suspected rupture of silicone breast implant or implant associated lymphoma and equivocal mammography/US findings, we recommend **MRI** for optimal assessment (↑↑).
B06. BREAST PAIN ASSESSMENT
B06A. Cyclic or non-cyclic diffuse breast pain[25,38,40]
1. In patients with cyclical breast pain, intermittent breast pain, or non-cyclic diffuse breast pain, we recommend **against imaging**, beyond usual screening recommendations[b] (↓↓).
B06B. Non-cyclic focal breast pain[25,38]
1. In patients under 30 years of age with focal, non-cyclical persistent breast pain, we suggest **targeted US** as the initial imaging technique (↑).
2. In patients 30 years of age and older, with focal, non-cyclical persistent breast pain, we recommend **bilateral mammography/DBT and targeted US** as the initial imaging techniques (↑↑).

(continued)

Table 4. (continued)

Clinical/Diagnostic Scenario and Recommendations
B07. MASTITIS/INFECTION AND ABSCESS ASSESSMENT[10,40]
1. In patients with clinical signs and symptoms of mastitis and suspected breast abscess, we recommend **targeted US** as the initial imaging technique (↑↑).
2. In patients with no clinical improvement in suspected mastitis following antibiotics, we suggest **diagnostic mammography/DBT and US** as the initial imaging techniques (EPc).
B08. PATIENTS WITH A HISTORY OF BREAST CANCER[10,20,26,28,33–35,39]
Patients with breast conserving surgery
1. In asymptomatic patients, with a personal history of breast cancer, we recommend **annual surveillance mammography/DBT** (↑↑).[c]
↳ **1.1** In patients with history of breast cancer and extremely dense breast tissue (i.e., ACR category D), we suggest **supplemental annual surveillance with US or MRI** (↑).[d]
Patients with therapeutic mastectomy
2. In patients with a history of breast cancer, we recommend **contralateral annual surveillance mammography/DBT** (↑↑).[c]
↳ **2.1** In patients with history of breast cancer and extremely dense breast tissue (i.e., ACR category D), we suggest **supplemental annual surveillance with US or MRI** (↑).[d]
3. In patients with therapeutic mastectomy (bilateral or unilateral) without breast reconstruction, we suggest **no imaging** for breast cancer surveillance on the side(s) of mastectomy (↓).
4. In patients with therapeutic mastectomy without reconstruction presenting with a palpable area of concern, we recommend **targeted US** as the initial imaging technique (↑↑).
5. In patients with therapeutic mastectomy and reconstruction (bilateral or unilateral), we suggest **no imaging** for breast cancer surveillance on the reconstructed side(s) (↓).
6. In patients with therapeutic mastectomy and reconstruction presenting with a palpable area of concern, we recommend **mammography/DBT and targeted US** as the initial imaging techniques (↑↑).[e]
B09. PATIENTS FOLLOWING RISK-REDUCTION MASTECTOMY (WITH OR WITHOUT AUTOLOGOUS OR IMPLANT-BASED RECONSTRCUTION)[27,34,35,39]
1. In patients with risk-reduction mastectomy and reconstruction (bilateral or unilateral), we suggest **no imaging** for breast cancer screening on the reconstructed side(s) (↓).
2. In patients with risk-reduction mastectomy and reconstruction presenting with a palpable area of concern, we recommend **mammography/DBT and targeted US** as the initial imaging techniques (↑↑).[e]
3. In patients with risk-reduction mastectomy without reconstruction, we suggest **no imaging** for breast cancer screening (↓).
4. In patients with risk-reduction mastectomy without reconstruction presenting with a palpable area of concern, we recommend **targeted US** as the initial imaging technique (↑↑).

DBT: digital breast tomosynthesis; **MRI**: magnetic resonance imaging; **US**: ultrasound. **Strength of Recommendation:** ↑↑: strong for; ↑: conditional for; ↓: conditional against; ↓↓: strong against; **EPc**: Expert Panel consensus.

[a]For example, atypical ductal hyperplasia, atypical lobular hyperplasia, lobular carcinoma in situ.

[b]See B01. Average risk screening or B02. High risk screening.

[c]The decision to discontinue surveillance should be made at the individual level and should be jointly assessed by the patient and healthcare provider through a shared decision-making process. This process should involve a discussion which considers the benefits, risks, patient preference, and life expectancy. If the patient requests surveillance after this discussion, surveillance should be offered.

[d]Supplemental surveillance may also be offered in other scenarios (e.g., previous mammographically occult cancer, ACR category C dense breast tissue, regional practice preference, and resource constraints).

[e]Imaging with mammography and US may differ based on facility practice when evaluating patients with autologous tissue vs implant-based reconstruction. For example, patients with implant-based reconstruction may initially undergo US, with mammography being performed only if feasible.

Imaging, Brazilian Breast Disease Society, Brazilian Federation of Gynecological and Obstetrical Associations),[30] the Canadian Task Force for Preventive Health Care,[31] the European breast guideline,[32] the European Society of Breast Cancer Specialists and International Society of Geriatric Oncology,[33] the German Society for Gynecology and Obstetrics and the German Cancer Society,[34,35] the International Late Effects of Childhood Cancer Guideline Harmonization Group,[36] the Japanese Research Group for Development of Breast Cancer Screening Guidelines,[37] the National Comprehensive Cancer Network,[38] the National Institute for Health and Care Excellence,[39] the Royal College of Radiologists,[40] the Instance Nationale de l'Evaluation et de l'Accréditation en Santé and the Tunisian Society of Oncology,[41] and the United States Preventive Services Task Force.[42–44]

Recommendations are presented in three tables: Screening (Table 2), Symptomatic Patients (Table 3), Other breast disease clinical/diagnostic scenarios (Table 4).

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ORCID iDs

Candyce Hamel https://orcid.org/0000-0002-5871-2137
Supriya Kulkarni https://orcid.org/0000-0002-5120-9248

Supplemental Material

Supplemental material for this article is available online.

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