OCTOBER IS BREAST CANCER AWARENESS MONTH

BREAST IMAGING AND SURGERY TOWN HALL

Thursday, October 28, 2021
7:00-8:30 pm

Featuring (from St. Joseph's Health Care London):

- **Dr. Muriel Brackstone**, Medical Director, Breast Care Program
- **Dr. Ilanit Ben-Nachum**, Radiologist
- **Heather Medaglia**, Coordinator, Breast Care Centre

Learn more about:

- The dense breast statement- where are we at
- Identifying high risk patients (OBSP)
- Who will be offered with breast MRI screening? ABUS? MRI? CEM?
- Breast Exam: When is it useful/required
- Updates: Genetic Testing (eligibility), Benign Breast (discharge and pain)
- Management of the Axilla

Register at:
https://tinyurl.com/9k6khpjx

St JOSEPH's HEALTH CARE LONDON

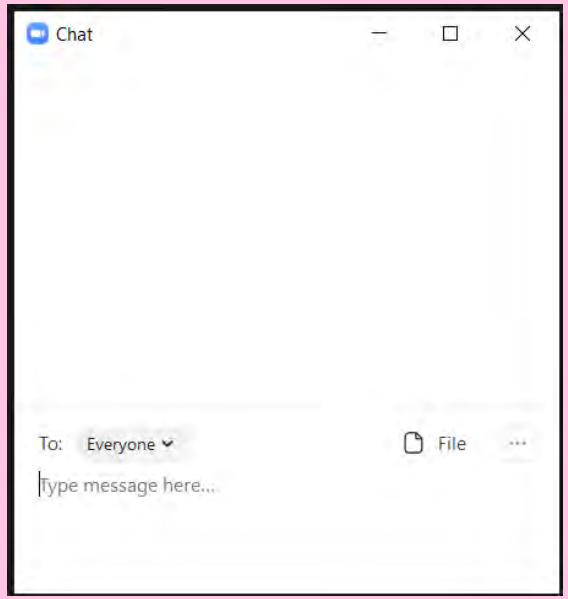
London Middlesex Primary Care Alliance

Technical Overview

- Please remain on mute during the presentations.
- If you have any comments or questions please use the CHAT BOX.
- There will be opportunities for Q&A after the presentation and during
- This event is being recorded and will be posted on the LMPCA website.

Welcome and thank you for joining us!

Please let us know who you are by introducing yourself in the CHAT BOX!



Welcome

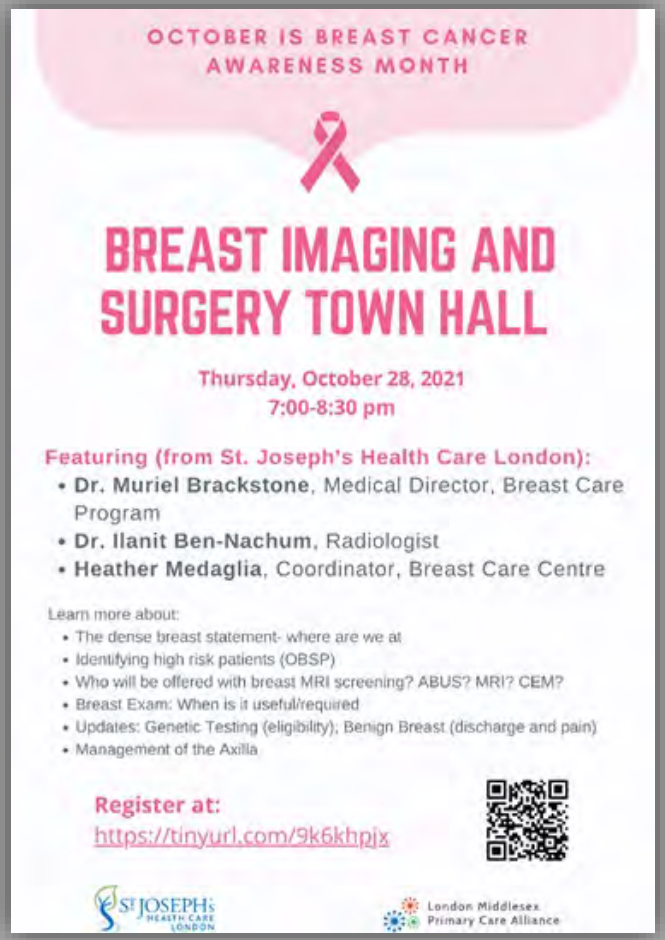
Dr. Dan Pepe
Dr. Vineet Nair

LMPCA Town Hall

Agenda Item	Presenter
Referral Process: Breast Care Centre	Heather Medaglia, Coordinator, Breast Care Centre
Breast Imaging Presentation	Dr. Ilaint Ben Nachum
Breast Cancer Update	Dr. Muriel Brackstone
Question & Answer	Dr. Vineet Nair, LMPCA
Closing	Dr. Dan Pepe, LMPCA

Referral Process: Breast Care Centre

Heather Medaglia



Breast Imaging Referral Process

Referral Received by Booking Clerks
*Everything on the Referral form must be completed before it's accepted; Ensure the referral is on the Breast Assessment Request Form and it must have signature

Referral will Triaged the following day

After Triaging the Booking Clerk will book appointment

If appointment is within 7 calendar days (inclusive of the date of booking), the Booking Clerk will notify the patient of the appointment.

If appointment is over 7 calendar days, the automated fax will send a notification to the Referring Physician Office to notify the patient of the appointment

If the requisition has been triaged suggesting a surgical referral, notification will be faxed to the referring physician's office and the physician will be required to complete a Breast Surgery Form.

If Imaging is from outside of SJHC a guest film review will be ordered for our Breast Radiologists to read the imaging and make recommendations

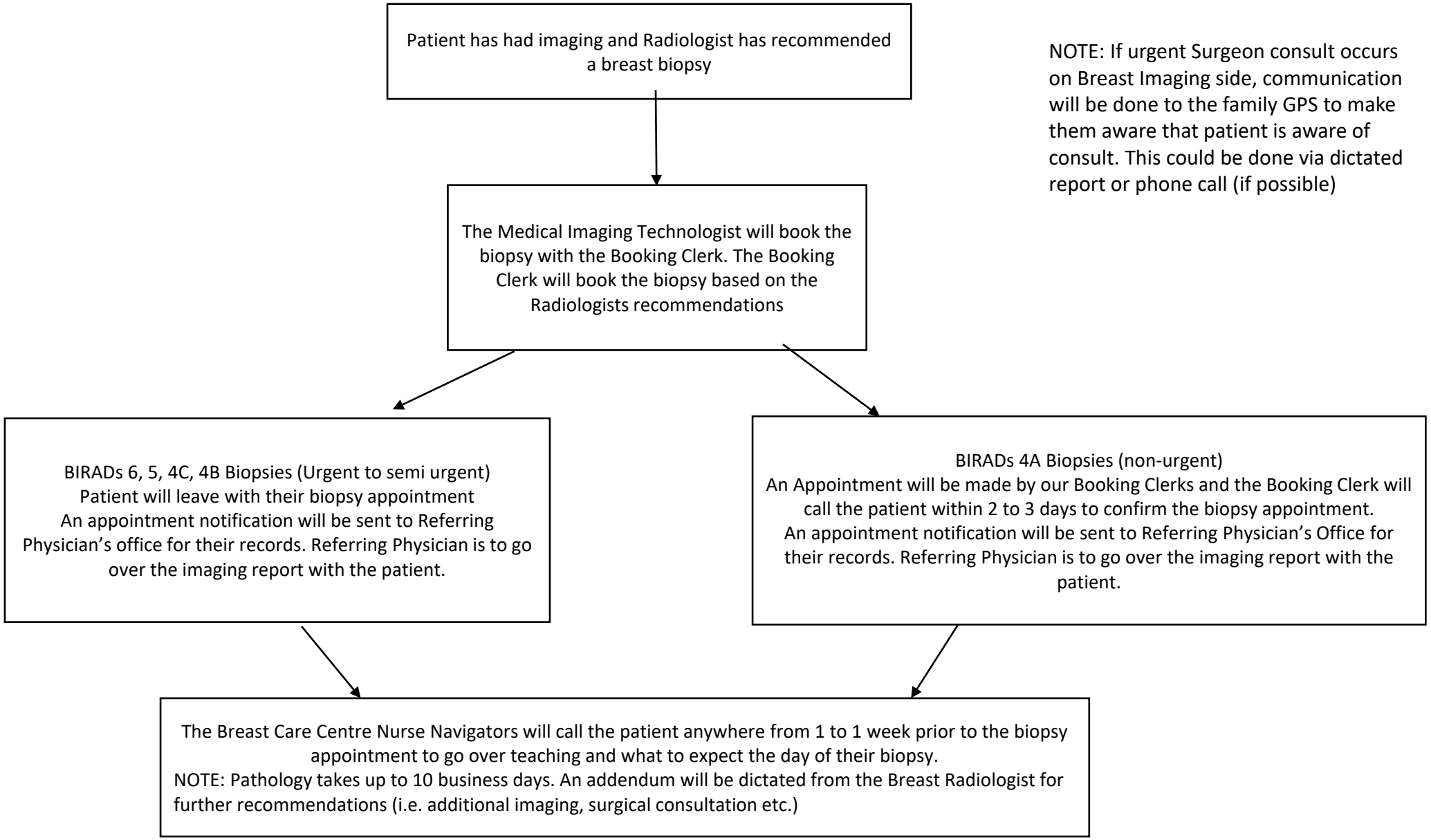
Booking Clerks will book imaging based off the report/recommendations

If appointment is within 7 calendar days (inclusive of the date of booking), the Booking Clerk will notify the patient of the appointment.

If appointment is over 7 calendar days, the automated fax will send a notification to the Referring Physician Office to notify the patient of the appointment

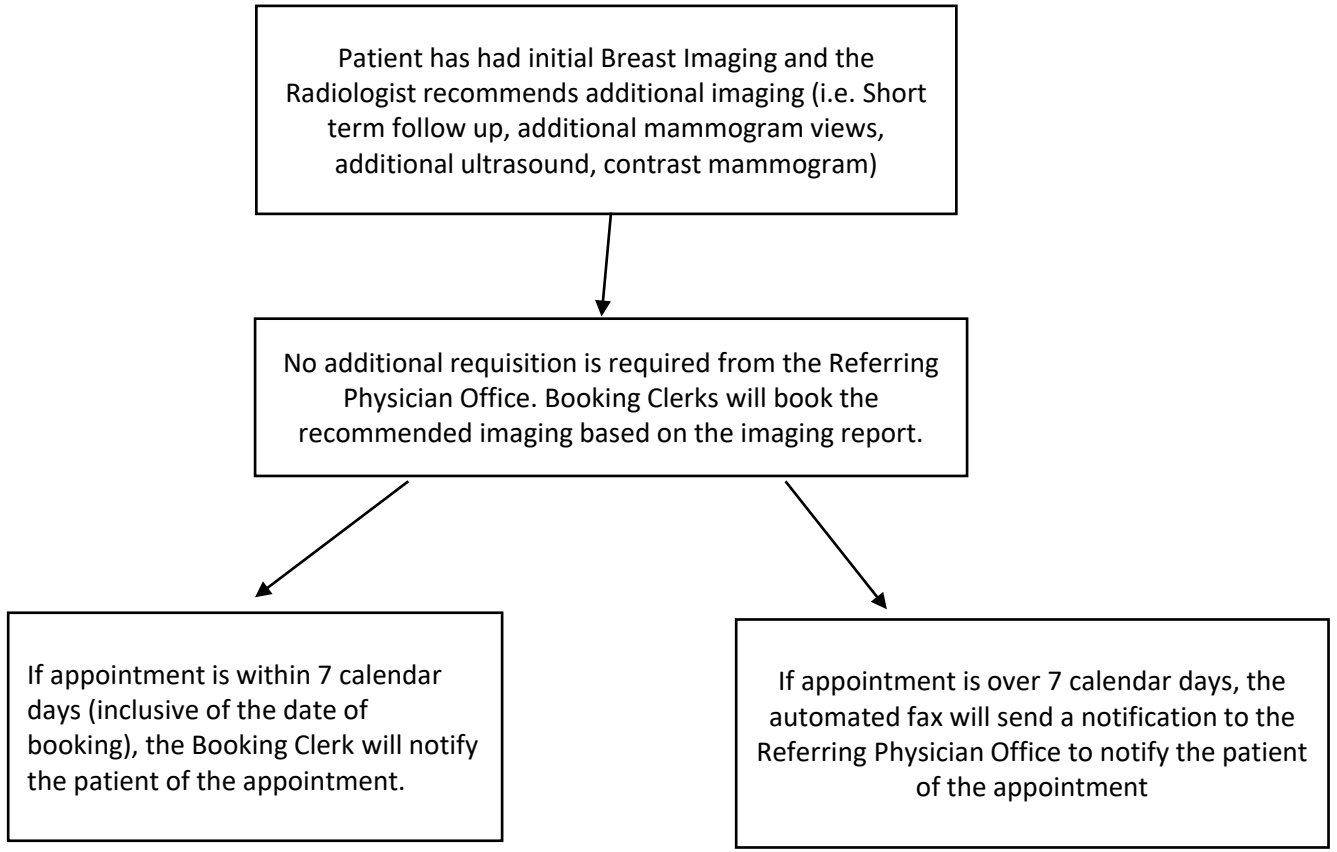
EXCEPTIONS: If there is an urgent issue where the referring office is closed, referring office to indicate and we will notify the patient
** For non-speaking English patients, Booking Clerks to arrange the interpreter and request the interpreter to notify the patient of the appointment date/time of procedure. The referring office will still receive the automated fax regarding the appointment.

On Site Breast Biopsy Booking



NOTE: If urgent Surgeon consult occurs on Breast Imaging side, communication will be done to the family GPS to make them aware that patient is aware of consult. This could be done via dictated report or phone call (if possible)

Breast Assessment- Additional Imaging Required



NOTE: For Contrast Imaging, creatinine is needed for patients who is over the age of 70 or who has Diabetes. The Creatinine needs to be done within 6 months of the test. The Referring Physician Office to fax results to the Breast Care Centre.

Breast Surgical Clinic Referral Process

Receive Referral

-Needs to be on Breast Surgery Form. All imaging must be completed including addendums from Radiology. Need signature and form completed; Any supporting documentations must be sent

* If Surgical Consultation recommendation comes from imaging, Medical Secretary will send fax requesting a signature to continue with the Surgical consult.

*If anything is incomplete with referral; Medical Secretary will fax letter to Referring Physician Office to notify of status.

Referral will be triaged

Medical Secretary will book with Surgeon based on triaging and CCO guidelines

If images are done outside of St. Joseph Breast Care Centre, will send images for Guest Film Review by Radiologist. Please see above of Guest Film Review Process.

Medical Secretary will fax appointment notification to Referring Physician Office and will mail notification to patient.

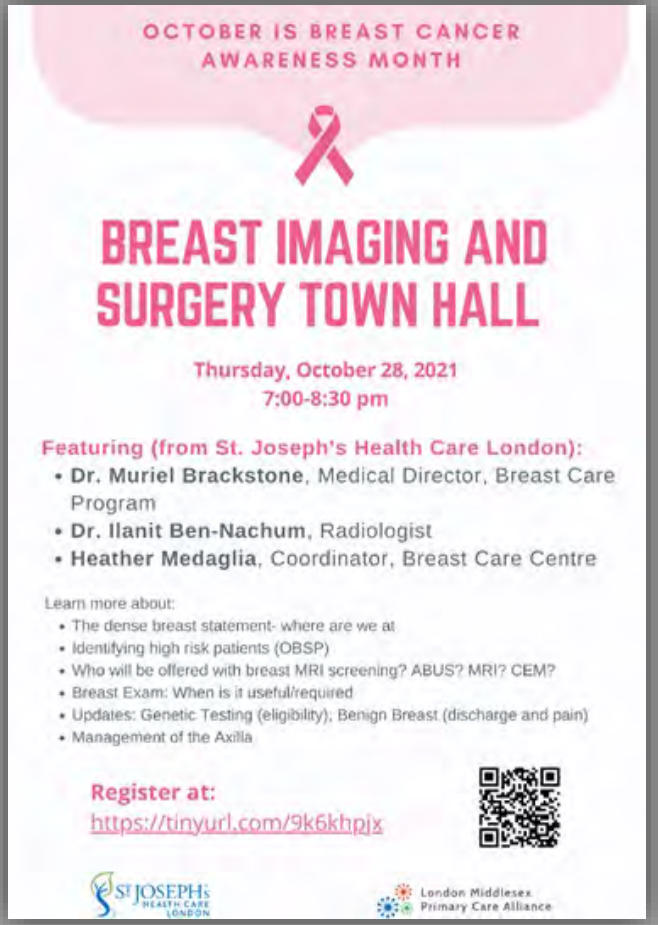
If appointment is within 7 calendar days (inclusive of the date of booking), the Booking Clerk will notify the patient of the appointment.

If appointment is over 7 calendar days, the automated fax will send a notification to the Referring Physician Office to notify the patient of the appointment

NOTE: Medical Secretary will have communication with the Referring Physician Office within 7 days of referral regarding status.

Breast Imaging Presentation

Dr. Ilanit Ben Nachum



London Middlesex Primary Care Alliance (LMPCA) Town Hall Meeting

Breast Imaging Presentation

Dr. Ilanit Ben Nachum

Radiologist, Western University

Ilanit.BenNachum@sjhc.London.on.ca

- The dense breast statement - where are we at ?
- Identifying high risk patients
- Breast Care Imaging Guidelines:

Who will be offered MRI and CEM for assessment?

Who will be offered with breast MRI screening? Who gets ABUS?

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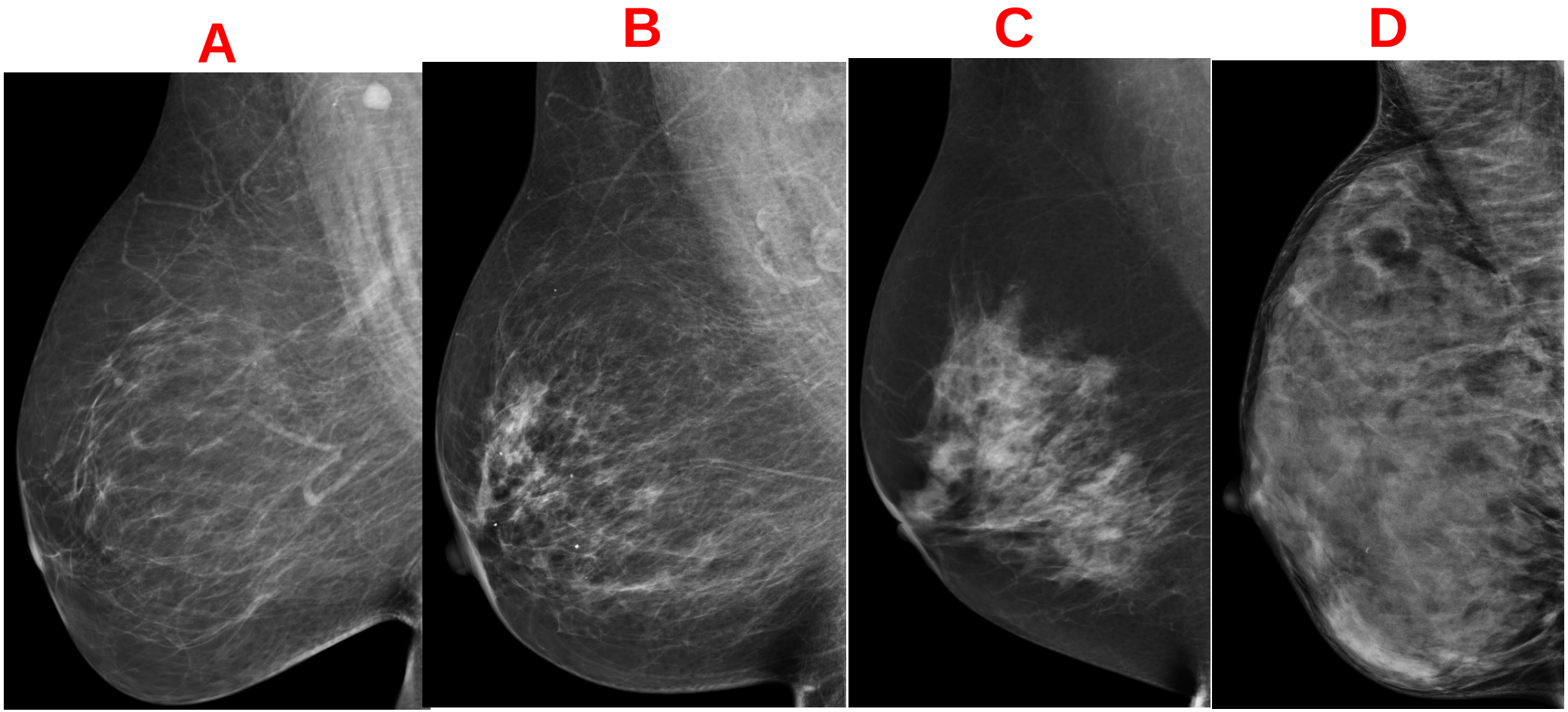
BREAST DENSITY

Determined by the chance that a mass can be obscured by fibroglandular tissue as an indicator for breast cancer risk



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BREAST DENSITY

A - *The breast are almost entirely fatty.*

B - *There are scattered areas of fibroglandular density.*

C - *The breasts are heterogeneously dense, which may obscure small masses.*

D - *The breasts are extremely dense, which lowers the sensitivity of mammography.*

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BREAST DENSITY AND MASKING

- Increased breast density → Lower cancer detection rate

- Dense breasts - Cancers detected on screening:
  - larger
  - more likely lymph node positive
  - higher stage
  - more often multifocal or multicentric
  - higher rate of mastectomy

- Increased breast density → Increased risk of **interval cancers**

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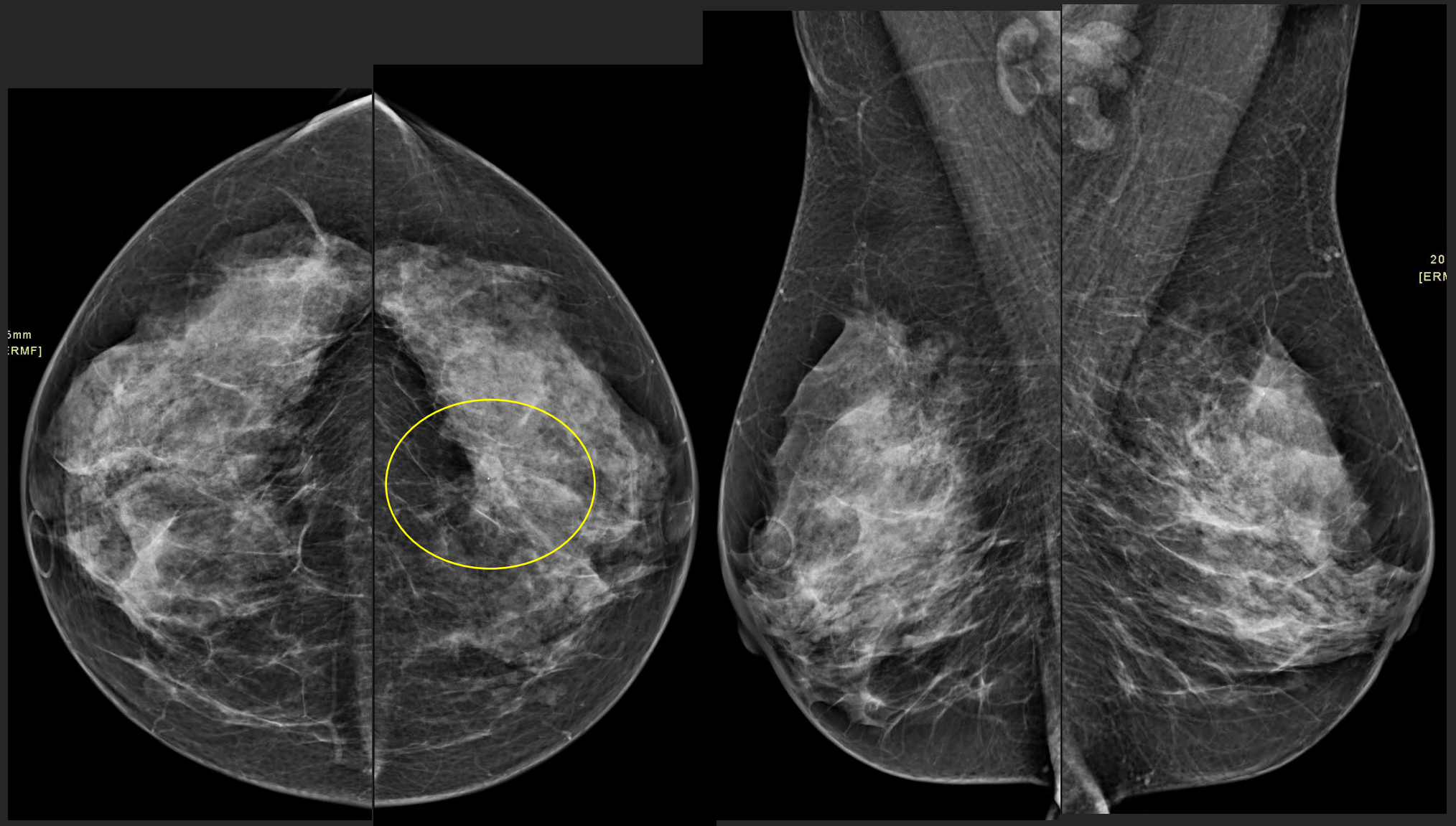
62 y
Screening Mammogram



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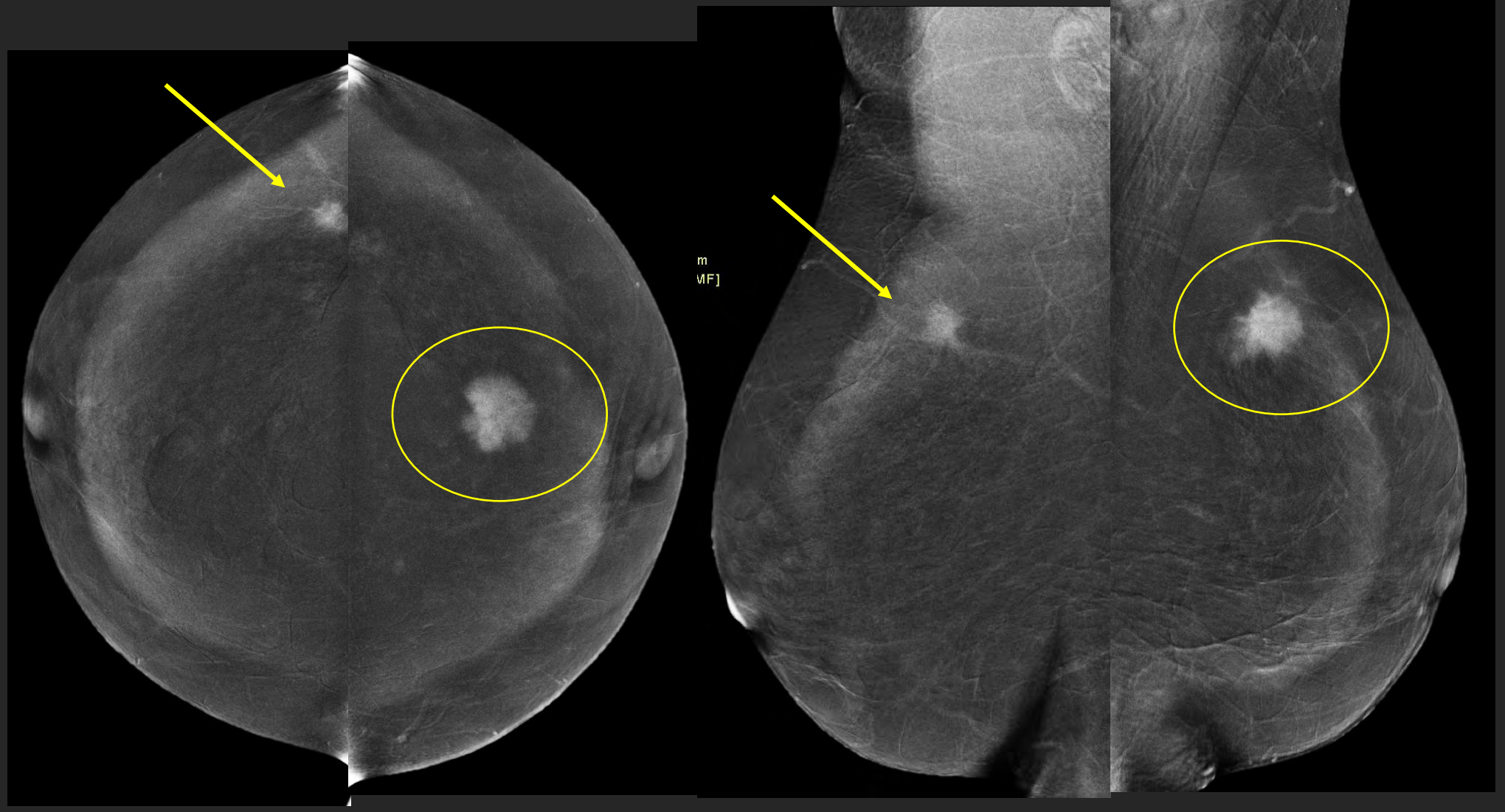

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BREAST DENSITY AND BREAST CANCER RISK

Risk Factor	Relative Risk
Postmenopausal obesity	1.1-2.0
Increased breast density	2.1-4.0
First-degree relative who developed breast cancer at an age less than 50 years (2 or more first-degree relatives)	2.5-4.0 (~8)
BRCA mutation	10-20

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Canadian Association of Radiologists
L'Association canadienne des radiologistes

Canadian Society of Breast Imaging
Société canadienne de l'imagerie mammaire

CAR/CSBI Position Statement on Mammographic Breast Density and Supplemental Screening

June 2019

Recently, there has been increased media coverage on mammographic breast density, as well as North American legislative change. Most US states have adopted breast density legislation and Canadian provinces are starting to discuss similar legislation. Additionally, Health Canada recently approved an automated breast ultrasound system. For these reasons, the Canadian Association of Radiologists (CAR) and the Canadian Society of Breast Imaging (CSBI) have provided the following position statement on Breast Density and Supplemental Screening.

Breast density is determined by mammography alone and cannot be detected through physical examination. Over 40% of women have dense breast tissue,[1, 2] defined as heterogeneously dense (ACR C) or extremely dense (ACR D).[3] Dense breast tissue is an independent risk factor for the development of breast cancer and decreases the likelihood of breast cancer being detected on screening mammography, potentially leading to delayed diagnosis.[4-7]

Breast density should be reported by the radiologist on all screening and diagnostic mammograms.[3] This may be included within the radiology report, results letter, or both.

The current CAR Breast Imaging and Intervention Guideline indicates that breast ultrasound is not appropriate for screening the general population.[8] This does not preclude supplemental screening breast ultrasound for the subpopulation of patients with mammographically dense tissue (ACR C and D). The CAR and CSBI acknowledge that there are challenges with providing supplemental screening for this subpopulation. Handheld ultrasound is operator dependent and time consuming, while access to experienced breast sonographers and radiologists, as well as funding, may remain challenges for some time to come.

Supplemental screening breast ultrasound is not recommended for women at high risk for breast cancer, defined as a lifetime risk of 20-25% or greater. Breast MRI screening is recommended for these high-risk women, regardless of breast tissue density. In average-risk women, supplemental screening breast ultrasound has been shown to increase detection of small node negative cancers as well as decrease the interval cancer rate.[9-11] However, discussion with the patient is encouraged, particularly regarding the increased probability that she may experience a false positive recall, and that she could require a needle biopsy for findings that may not turn out to be cancer.[9-11] When considering supplemental screening breast ultrasound, breast density should be placed in context with other risk factors and risk reduction strategies.

Canadian Association of Radiologists
L'Association canadienne des radiologistes

Canadian Society of Breast Imaging
Société canadienne de l'imagerie mammaire

Ultrasound should not be used as a primary screening modality. Mammography remains the primary modality for screening women of all breast densities with mortality benefits of 40-60% among those who participate regularly, as demonstrated in recently published, long-running studies.[12, 13] Screening mammography should be optimized with high-quality digital mammography, as this has been shown to increase sensitivity in women with mammographically dense tissue.[14] Annual mammography can be considered for all women with extremely dense breast tissue (ACR D) who participate in screening as it may decrease the number of interval cancers.[1]

KEY POINTS

1. Dense breast tissue is an independent risk factor for the development of breast cancer and decreases the likelihood of breast cancer being detected on screening mammography.

2. Breast density should be reported by the radiologist on all screening and diagnostic mammograms.

3. Supplemental screening breast ultrasound may be considered for patients with dense breast tissue (ACR C & D density categories).

4. When considering supplemental screening breast ultrasound, breast density should be placed in context with other risk factors and risk reduction strategies.

5. Mammography remains the primary modality for screening women of all breast densities.

6. Supplemental screening breast ultrasound should not replace breast MRI screening for women who have a high lifetime risk of breast cancer.

7. Annual mammography can be considered for all women with dense breast tissue who participate in screening.

REFERENCES

1. Coldman A. Report on Breast Density. Vancouver, BC: BC Cancer 2018.
2. Lee CI, Bassett LW and Lehman CD. Breast density legislation and opportunities for patient-centered outcomes research. *Radiology*. 2012; 264: 632-6.
3. Sickles E, D'Orsi CJ, Bassett LW, et al. ACR BI-RADS® Mammography. *ACR BI-RADS® Atlas, Breast Imaging Reporting and Data System*. Reston, VA: American College of Radiology, 2013.
4. Wolfe JN. Breast patterns as an index of risk for developing breast cancer. *AJR Am J Roentgenol*. 1976; 126: 1130-7.

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KEY POINTS

1. Dense breast tissue is an independent risk factor for the development of breast cancer and decreases the likelihood of breast cancer being detected on screening mammography.

2. Breast density should be reported by the radiologist on all screening and diagnostic mammograms.

3. Supplemental screening breast ultrasound may be considered for patients with dense breast tissue (ACR C & D density categories).

4. When considering supplemental screening breast ultrasound, breast density should be placed in context with other risk factors and risk reduction strategies.

5. Mammography remains the primary modality for screening women of all breast densities.

6. Supplemental screening breast ultrasound should not replace breast MRI screening for women who have a high lifetime risk of breast cancer.

7. Annual mammography can be considered for all women with dense breast tissue who participate in screening.

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What is added to our reports?

It is important for your patient to understand the following about increased breast density (BI-RADS category C and D):

1. Greater breast density results in lower sensitivity for mammography and higher likelihood that cancer will be missed.
2. The assessment of breast density is subjective and, therefore, variable.
3. Density itself is a risk factor. Women with dense breasts have approximately 1.5 times higher risk than the average woman.
4. Note the breast density can be affected by age and weight and therefore can change over time.
5. Annual screening mammogram is recommended. Starting age needs to be tailored to the patient age and her risk factors.

*[Note that supplementary screening for dense breast alone is currently not approved by OHIP.]

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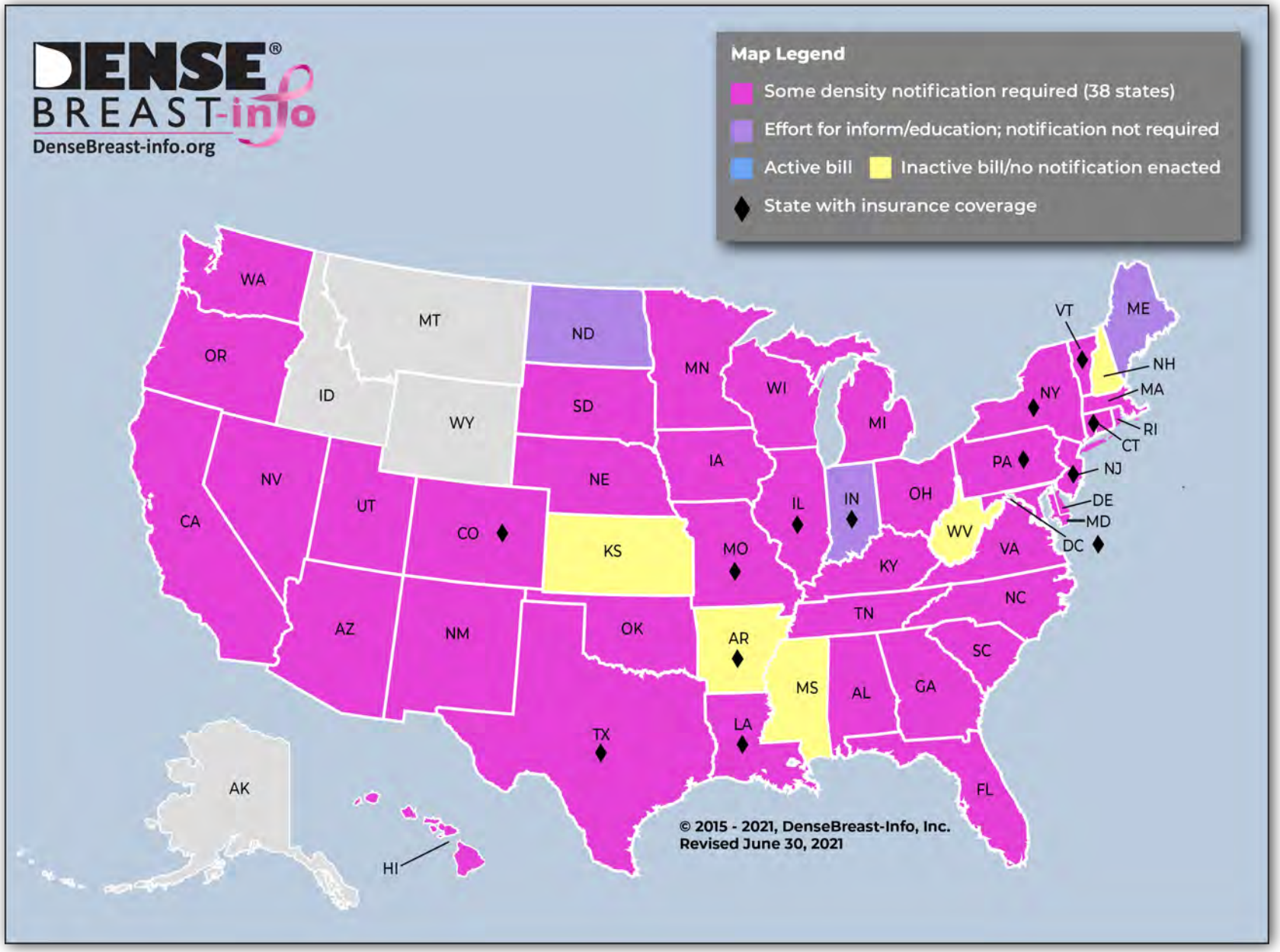
What's happening across the border?



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INCREASED BREAST DENSITY - WHAT CAN WE DO?

<u>Supplemental screening</u>:

- Tomosynthesis – **TMIST trial**
- Contrast enhanced mammography – **CMIST trial**
- Screening US – hand held or ABUS (Automated breast US)
- Abbreviated MRI – **EA1141 study**

- Supplemental screening - **currently not covered by OHIP !**

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INCREASED BREAST DENSITY - WHAT CAN WE DO?

Identify High risk patients:

- Strong family history
- Increased breast density

High risk OBSP:

- Refer if you suspect your patient's lifetime risk is high (>25%) based on family/personal history and breast density.
- Referral forms for the OBSP are available at https://www. https://www.cancercareontario.ca/en/guidelines-advice/cancer-continuum/screening/breast-cancer-high-risk-women

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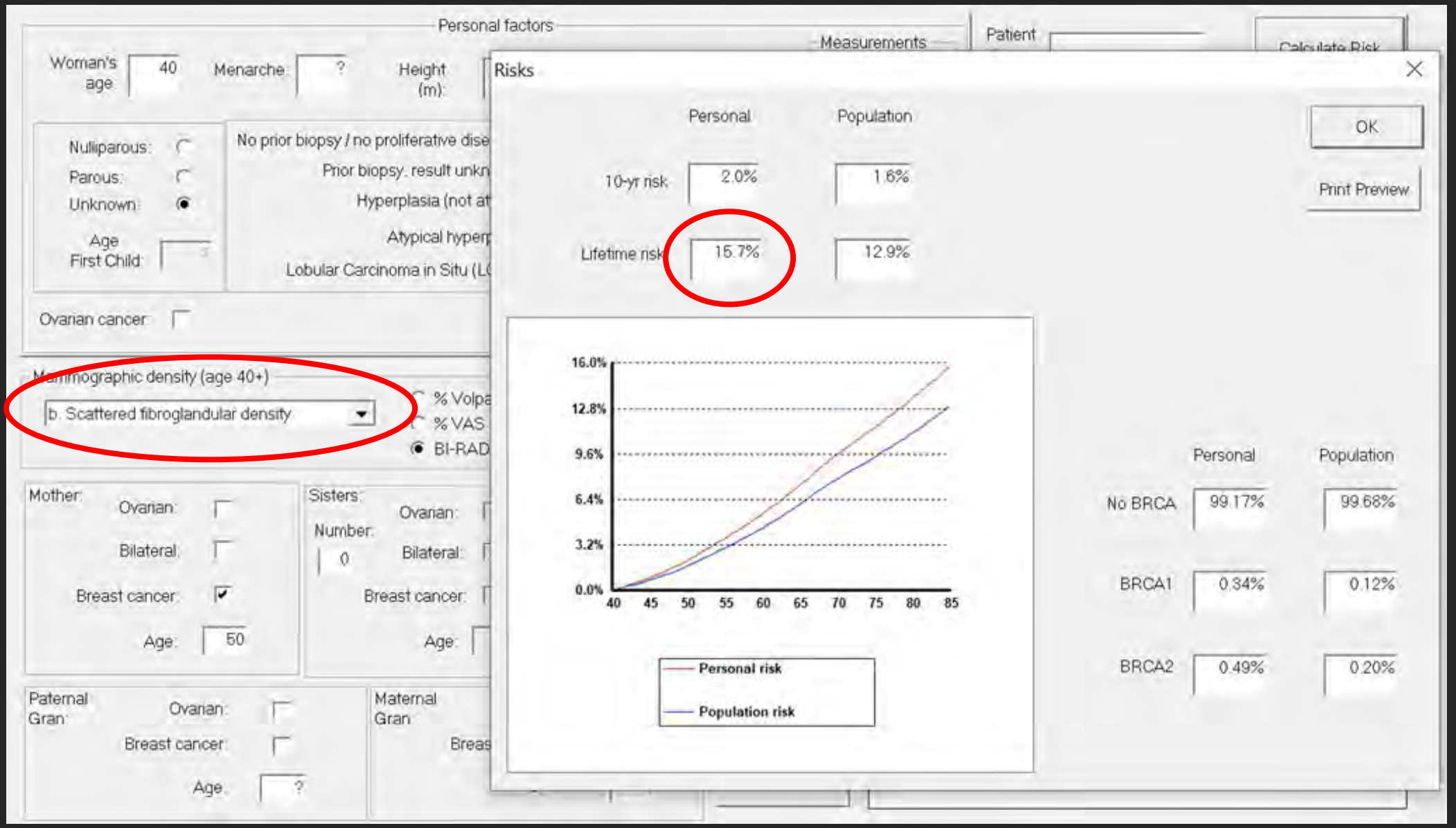
IBIS Breast Cancer Risk Evaluation Tool



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Personal factors

Woman's age: 40 Menarche: ? Height (m):

Measurements

Patient

Calculate Risk

Nulliparous:
Parous:
Unknown:
Age First Child: ?

No prior biopsy / no proliferative dise
Prior biopsy, result unkn
Hyperplasia (not at
Atypical hyperp
Lobular Carcinoma in Situ (L

Ovarian cancer:

Mammographic density (age 40+)

d. Extremely dense

% Volpa
% VAS
BI-RAD

Mother: Ovarian: Bilateral: Breast cancer: Age: 50

Sisters: Number: 0 Ovarian: Bilateral: Breast cancer: Age:

Paternal Gran: Ovarian: Breast cancer: Age: ?

Maternal Gran: Breas

Paternal aunts: Number: Ovarian:

Maternal aunts: Number: Ovarian:

Daughters: Number: Ovarian:

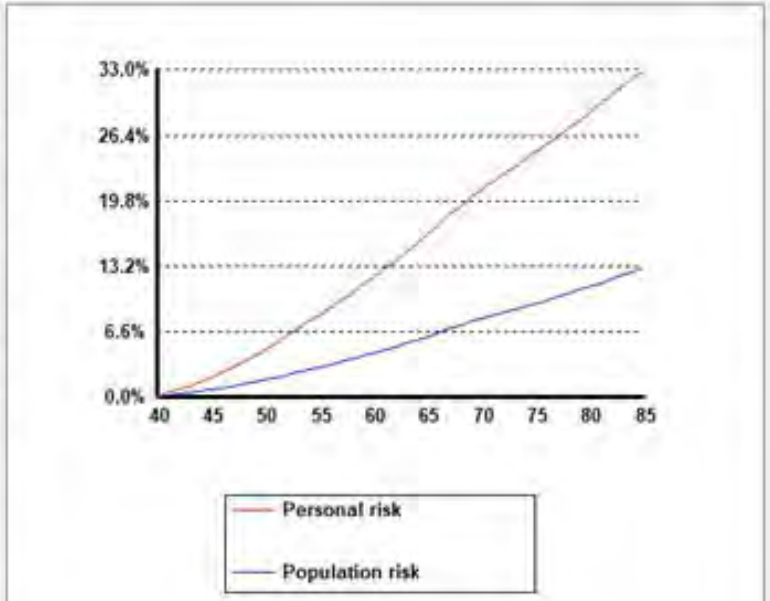
View Family History

Risks

	Personal	Population
10-yr risk	4.7%	1.6%
Lifetime risk	32.8%	12.9%

OK

Print Preview



	Personal	Population
No BRCA	99.17%	99.68%
BRCA1	0.34%	0.12%
BRCA2	0.49%	0.20%

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INCREASED BREAST DENSITY - WHAT CAN WE DO?

St Joseph's Breast Care Center:

- When do we offer MRI screening?

We are trying to identify intermediate risk women:

- Premenopausal women with increased breast density and significant strong family history (first degree relative, premenopausal)

- Premenopausal women with increased breast density and personal history of breast cancer

- When do we offer ABUS?

- Not approved by OHIP for supplemental screening
- We offer to women with challenging mammograms (increased breast density, challenging positioning)
- Inability to tolerate mammogram (Lynch syndrome)

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Breast Care Imaging Guidelines - Screening

- OBSP - >50y biannual, annual for > 75% breast density
- OHIP under 50y (dense breast, strong family history)

- High risk OBSP - annual 2D mammography and MRI (30-69y)
- High risk due to family history - screening mammography starts 10 years earlier than the affected relative in the family (>30).

- Screening US can be offered if the patient is not able to have mammogram due to physical condition.

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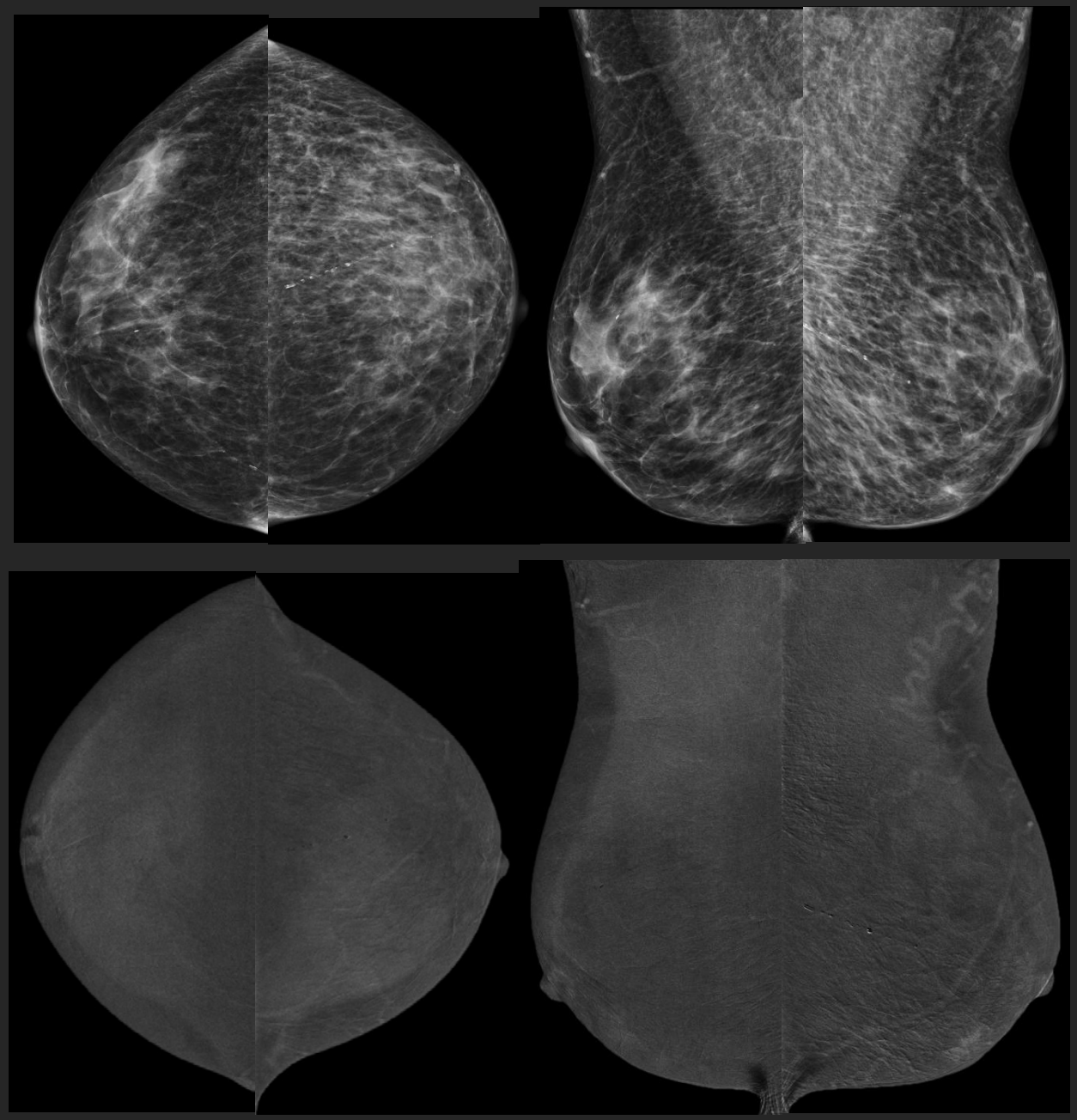
Screening prior to renal transplantation!



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Patients reluctant to have a mammogram

- We cannot offer screening US or MRI if the patient declines mammography.

- Our new alternative is **Patient Self Compression**
- Pre medication for pain
- Let us know before the patient arrives…we will be prepared!

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Breast Care Imaging Guidelines – call back

Call back:

- Tomosynthesis (3D)
- additional views
- ± Targeted Ultrasound
- Contrast Enhanced Mammography or MRI for suspicious findings or as problem solving tool

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Breast Care Imaging Guidelines – symptomatic patients

AGE	<30	>30
Pain – clinically significant*	Targeted US	Mammogram (2D+3D)
Palpable lump by patient	Targeted US	Targeted US followed by mammogram (2D or 2D+3D or CEM)
Palpable lump by physician	Targeted US	Mammogram followed by Targeted US
Nipple discharge	Targeted US	Mammogram (2D + 3D) ± surgical consult

* Clinically significant pain – focal and noncyclical

- Pregnant/lactating – we start with US
- Age <18 – pediatric surgeon referral before imaging

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Information we need in order to schedule the appropriate exams:

- Is there a new clinical concern in either breast?
- Specify the concern: palpable lump, nipple discharge, nipple inversion, pain etc.
- Is it palpable lump by patient or by physician? (different protocol)
- Palpable lump - Indicate where the palpable lump is located
- Pain – is it focal or diffuse?

- Is there a concern of Implant rupture?
- Are the implants silicone or saline?

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Scenarios where additional imaging exam is not indicated

- This patient has had recent breast imaging and the Radiologist notes that further breast imaging is not required. If you are still clinically concerned then you may consider a referral to the breast surgery clinic.

- Ultrasound is not required for diffuse pain, skin rashes or itchiness.

- MRI / CEM is not indicated for breast pain, diffuse breast nodularity, difficult breast exam, fibrocystic changes.

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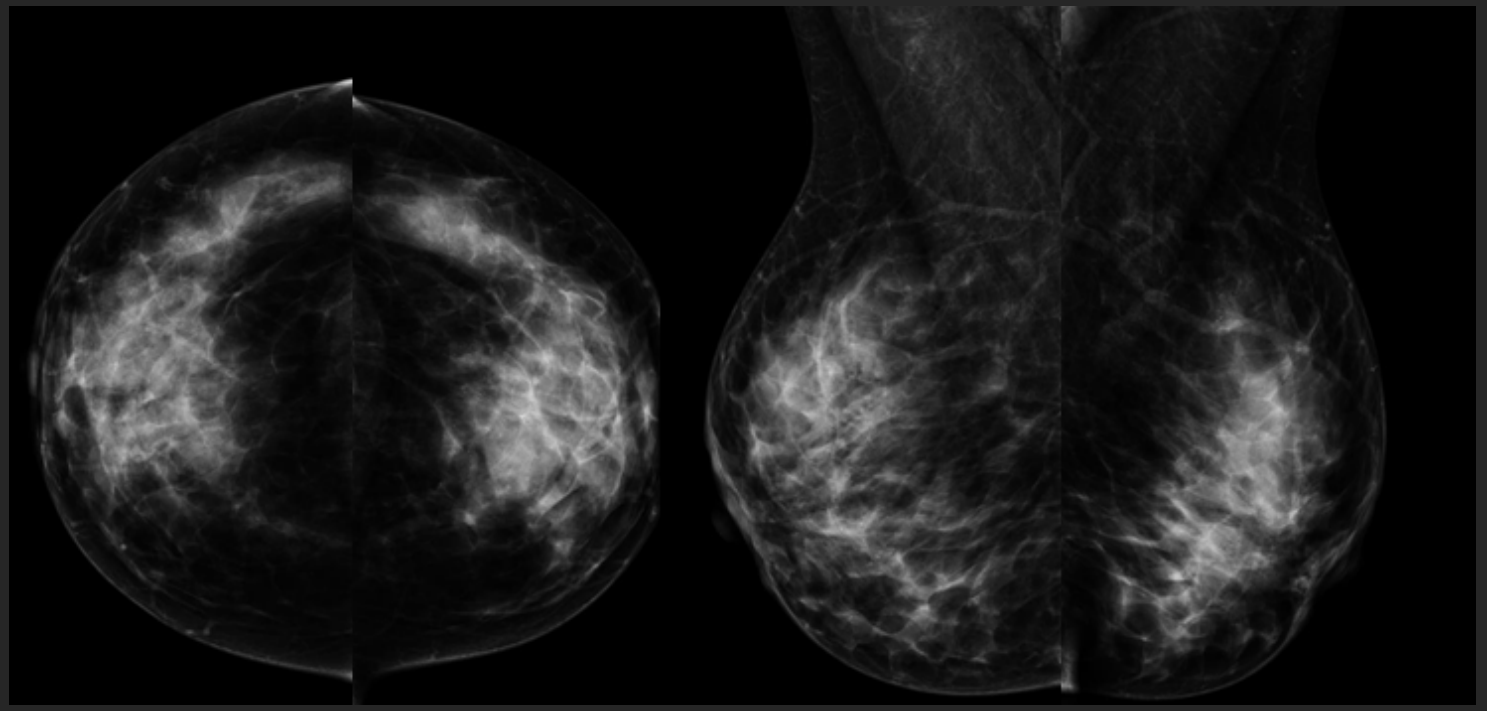
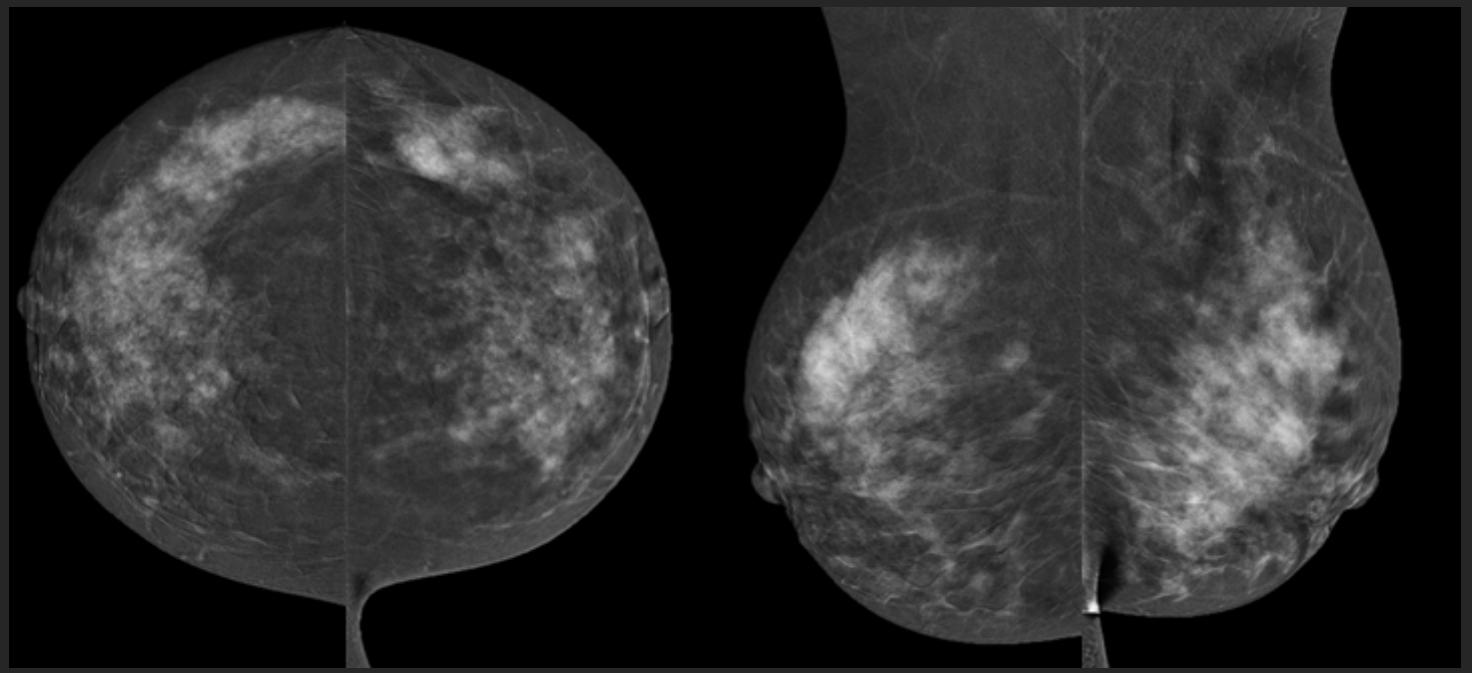
Call back from OBSP Screening

Multiple calcifications in the Left breast –

Benign pathology





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Summary

- ✓ Dense breast tissue is an independent risk factor for the development of breast cancer and decreases the likelihood of breast cancer being detected on screening mammography.
- ✓ Mammography remains the Mammography remains the primary modality for screening women of all breast densities.
- ✓ Supplemental screening - **not covered by OHIP.** We have limited resources!
- ✓ Good communication will help us choose the appropriate imaging assessment.
- ✓ Efforts to identify high risk patients!
- ✓ The future → personalized screening based on a woman's individual risk profile.

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Thank you!

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Radiologist, Western University

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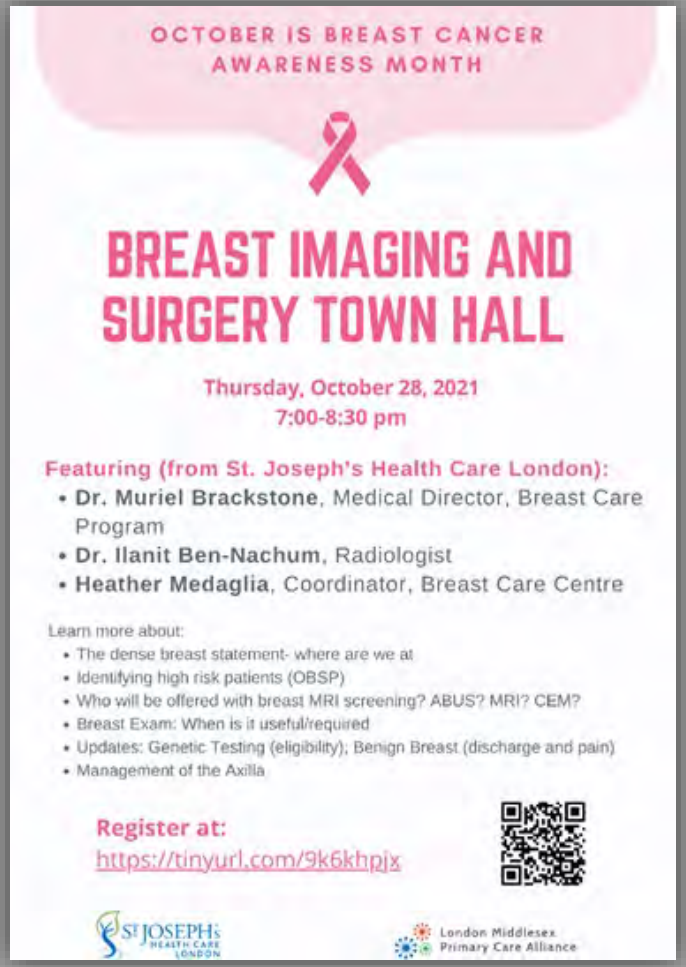
Breast Cancer Update

Dr. Muriel Brackstone



Primary Care Town Hall Breast Cancer Update

Muriel Brackstone MD, PhD, FRCSC

Surgical Oncologist, Medical Director Breast Care Clinic

Agenda

- Breast Exam – When am I required to do one??
- Updates in Genetic Testing – Who is eligible??
- Updates in Benign Breast – nipple discharge / breast pain
- Management of the Axilla

Disclosures

- None

Breast Exam

- **Average Risk Non-Cancer Patient** – **Not required** in addition to mammo screening (every 2 years; annually if dense on mammo)
- **Elevated Risk Non-Cancer Patient** (One first-degree relative) – **Not required** in addition to mammo (mammo every year)
- **High Risk Non-Cancer Patient** (several relatives/gene positive) – **Is required** (annually as part of physical exam) (with annual mammo/MRI)
- **Prior Breast Cancer Patient** – **Is required** (with annual mammo if breast remains) – Once per year if following with oncologists, twice per year for first 5 years if no one else is following
- **BiRADS 3 on imaging** – **Is required** every 6 months during imaging follow-up (2 years)
- **Palpable finding or Pain** – sent for mammo – **Is required** - **RE-EXAMINE to ensure no ongoing concern**

We Don’t Know Your Pre-Test Level of Concern..

IMPRESSION:
Sonographically benign.

FYI:

You have referred your patient to the Breast Care Centre at St. Joseph's Health Care. The chief complaint indicated that a palpable abnormality had been detected. Breast imaging has now been completed.
There was no imaging abnormality in the palpable region. As a result, no further investigations or visits to the Breast Care Centre have been scheduled for your patient.
There are several published case series in the literature regarding patients with a palpable abnormality and no imaging abnormality in the palpable area, of which, after two years of follow-up there was only one missed cancer in over a thousand patients.
Thus, these negative imaging results should be highly reassuring to you and your patient.
The Surgeons and Radiologists at the Breast Care Center would ask that you please re-examine your patient. If, in the rare event that on repeat clinical breast exam you feel there is a highly suspicious abnormality that was missed on imaging, please send a new referral for the patient to meet with a surgeon.

2021 Hereditary Cancer Testing Eligibility Criteria

Version 1.0: May 3, 2021

Hereditary Breast and Ovarian Cancer

1. **Personal history of breast cancer ≤45 years of age.**
2. **Personal history of breast cancer ≤50 years of age with limited family structure (e.g. adoption).**
3. Personal history of breast cancer ≤50 years of age with a second primary breast cancer.
4. Personal history of triple negative breast cancer ≤60 years of age.
5. Personal history of male breast cancer at any age.
6. Personal history of epithelial ovarian cancer, including fallopian tube and peritoneal cancer at any age.

2021 Hereditary Cancer Testing Eligibility Criteria

Version 1.0: May 3, 2021

7. **Personal history of breast** or ovarian cancer **any age with ≥1 close relative(s)[1] with**:
    a. Breast cancer or ovarian cancer (in families with 2 breast cancers, one must be diagnosed ≤50 years of age)
    b. Triple negative breast cancer ≤60 years of age
    c. Male breast cancer any age
    d. Pancreatic adenocarcinoma any age
    e. High risk prostate[2] cancer any age
    f. Two or more close relatives with breast cancer or prostate cancer at any age

[1]Close relatives typically refers to FDR/SDR on the same side of the family

[2]High risk prostate cancer can be confirmed with evidence of one or more of the following features: T3 (or higher), Grade Group 4 or 5, lymph node involvement, PSA ≥20.

2021 Hereditary Cancer Testing Eligibility Criteria

Version 1.0: May 3, 2021

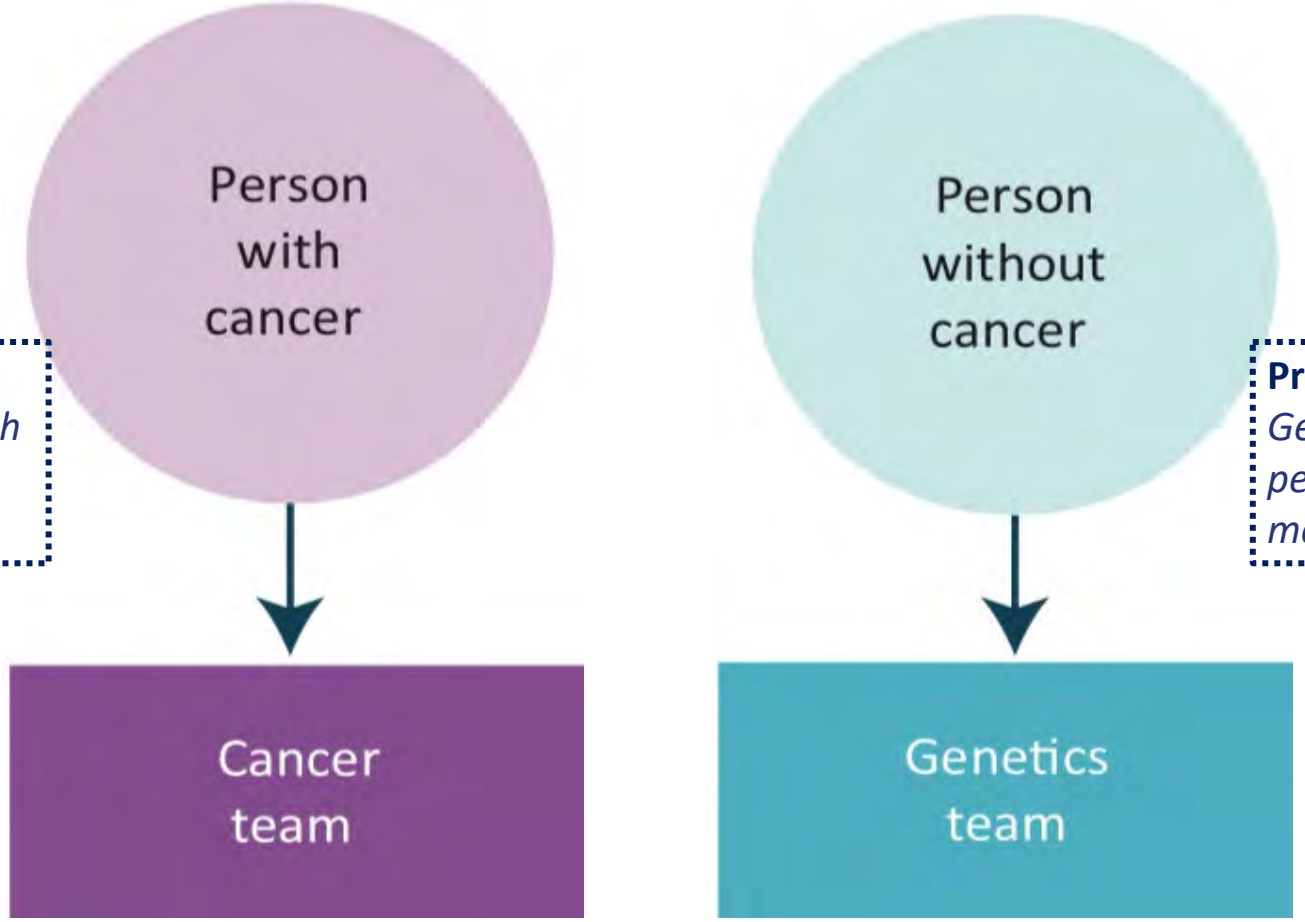
- Hereditary Gastrointestinal Cancers (Lynch, polyposis, gastric, etc.)
- **Hereditary Prostate Cancer**
- **Hereditary Pancreatic Cancer**
- Gastrointestinal Stromal Tumours (GISTs)
- Familial Melanoma
- Hereditary Renal Tumour Syndromes
- Pheochromocytoma/Paraganglioma
- Soft Tissue/Sarcoma

Hereditary Cancer Testing – Summary of Genes (76)

Provincial Hereditary Cancer Testing Gene List				
AIP	APC	ATM	AXIN2	BAP1
BARD1	BMPR1A	BRCA1	BRCA2	BRIP1
CDC73	CDH1	CDK4	CDKN1B	CDKN2A
CHEK2	CTNNA1	DICER1	EGFR	EGLN1
EPCAM	EXT1	EXT2	FH	FLCN
GALNT12	GREM1	HOXB13	KIT	LZTR1
MAX	MEN1	MET	MITF	MLH1
MLH3	MSH2	MSH3	MSH6	MUTYH
NBN	NF1	NF2	NTHL1	PALB2
PDGFRA	PMS2	POLD1	POLE	POT1
PRKAR1A	PTCH1	PTEN	RAD51C	RAD51D
RB1	RECQL	RET	RNF43	RPS20
SDHA	SDHAF2	SDHB	SDHC	SDHD
SMAD4	SMARCA4	SMARCB1	SMARCE1	STK11
SUFU	TMEM127	TP53	TSC1	TSC2
VHL				

Mainstreaming (aka Oncology-based testing): A New Paradigm of Genetic Testing

Medical genetic testing
*Genetic testing in people with cancer is **similar** to other medical tests*



Predictive genetic testing
*Genetic testing in unaffected people is **different** to medical tests*

Streamlined, Flexible, Efficient.

Children's Hospital
London Health Sciences Centre

Rahman, 2014

Nipple Discharge

- 43 yo female presents to your office with nipple discharge

- What do you want to know about the nipple discharge?
  - Unilateral vs. bilateral?
  - Multi duct?
  - Colour → milky, yellow, clear, brown, bloody
  - Spontaneous vs. occurs with manipulation
  - Any other breast symptoms?

Nipple Discharge:

- 43 yo female presents to your office with nipple discharge
  - Unilateral
  - She can't tell if there is more than one duct involved
  - Spontaneous
  - Bloody/clear in colour
  - No other breasts complaints

- You complete a breast exam and try to see if you can express any nipple discharge

Nipple Discharge: Types

Types of nipple discharge:

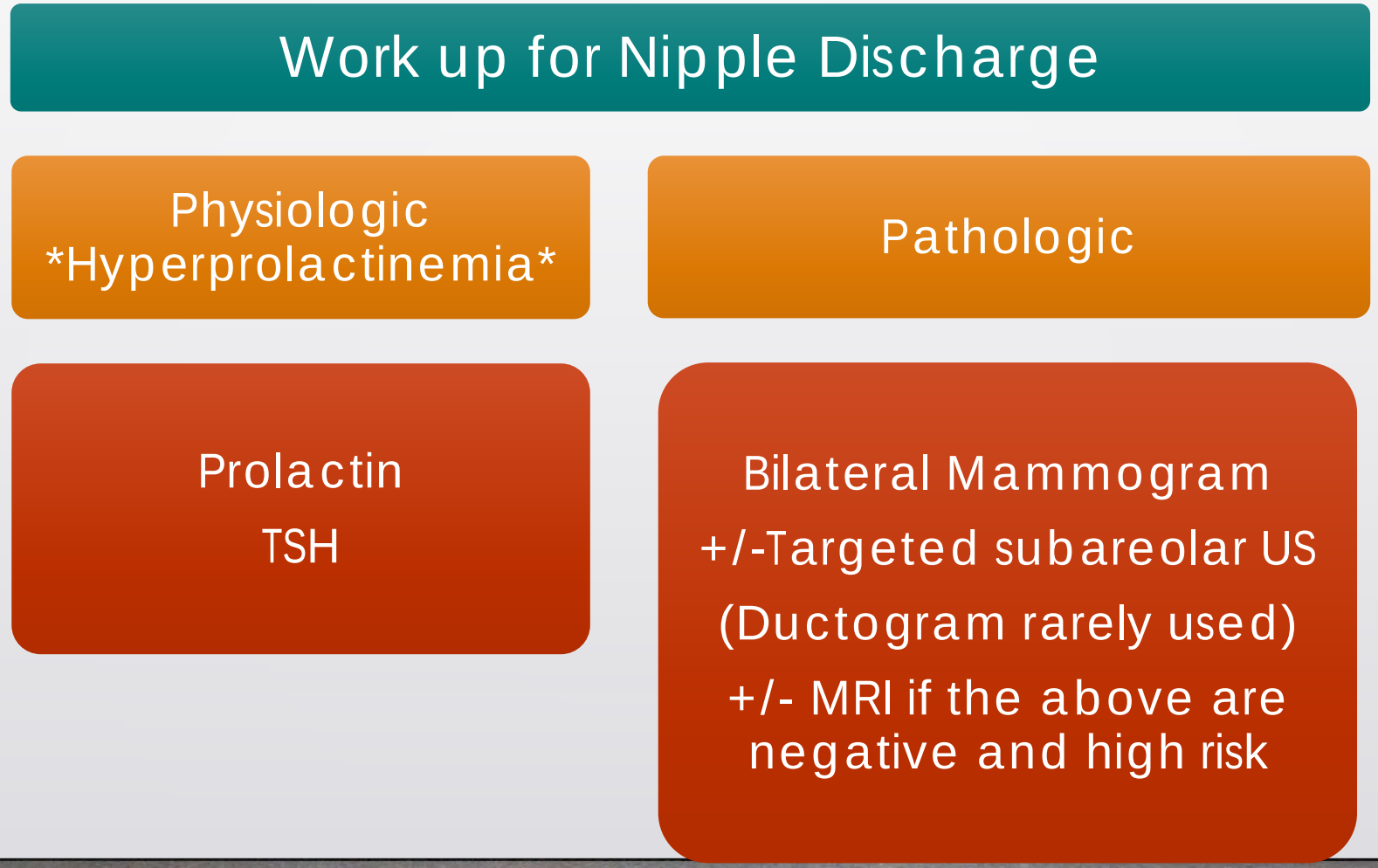
- Lactation
- Physiologic/Galactorrhea
- Pathologic/suspicious
  - Most Commonly: Duct Ectasia, Papilloma

Nipple Discharge: Types

Features of Nipple Discharge

Physiologic	Pathologic
Bilateral	Unilateral
Multiple ducts	Single duct
Manual manipulation	Spontaneous
Non-bloody	Bloody
Reproductive Age	Non-reproductive age
Normal exam/imaging	Associated mass or abnormal imaging

Nipple Discharge: Work Up



Nipple Discharge: Causes

Causes of Nipple Discharge

Physiologic *Hyperprolactinemia*

- Medication-related (antipsychotics, antidepressants, verapamil, metoclopramide, domperidone)
- Tumours (pituitary adenoma, ectopic prolactin ie. lung cancer)
- Hypothyroidism
- Chest wall injury, surgery or burn
- Renal insuff(↓prolactin clearance)

Pathologic

- Duct ectasia
- Intraductal Papilloma
- Malignancy

** Referral to breast surgeon

Nipple Discharge: Malignancy Risk

- Risk of Malignancy
  - Most often benign
  - Occurs in 10 to 15 % of benign breast disease
  - Occurs in 2 to 3% of malignancy
    - Usually DCIS

Nipple Discharge: Case

- Back to our case … 43 yo female with unilateral, spontaneous bloody nipple discharge

- Now what do you want to do?
  - Imaging: Mammo (normal); retroareolar U/S if pt not wanting excision (papilloma)
  - Diagnosis: Papilloma
  - Referral for surgical consultation

Breast Pain

- Common – 7 out of 10 women experience it
- No evidence that breast pain leads to increased risk breast CA
- Cyclical Breast
- Non-Cyclical Breast
- Non-Breast (chest wall)

Cyclical Breast Pain

- Can be exacerbated by smoking; May be related to change in breast shape/size
- Typically associated with period cycle; Settles after menopause; Common onset early 40s
- **Treatment Options:**
- Bra Fitting (may want to wear more supportive bra and sports bra at night)
- Anti-inflammatory (Motrin/Aleve), Voltaren gel on breast
- Take oral contraceptive continuously (if post-menopausal, change hormone therapy combination tablet); Flax Seed Supplement; Evening Primrose Oil
- Can consider Tamoxifen (5 mg daily)

Non-Cyclical Breast Pain

- Can be Unilateral or Bilateral
- Commonly onsets around peri-menopausal time as well
- Can occur in armpit
- Can be caused by surrounding chest wall (arthritis/strain/exercise)
- Can be first site of pain for Fibromyalgia

- **Treatment Options** – Try same as non-cyclical breast pain

Chest Wall Pain

- Physical Examination is Really Helpful
- Most Pain elicited when examining lateral chest wall or medial sterno-chondral junctions

- **Treatment Options**:
- Anti-inflammatories as above
- Pain clinic if not resolving

Management of the Axilla

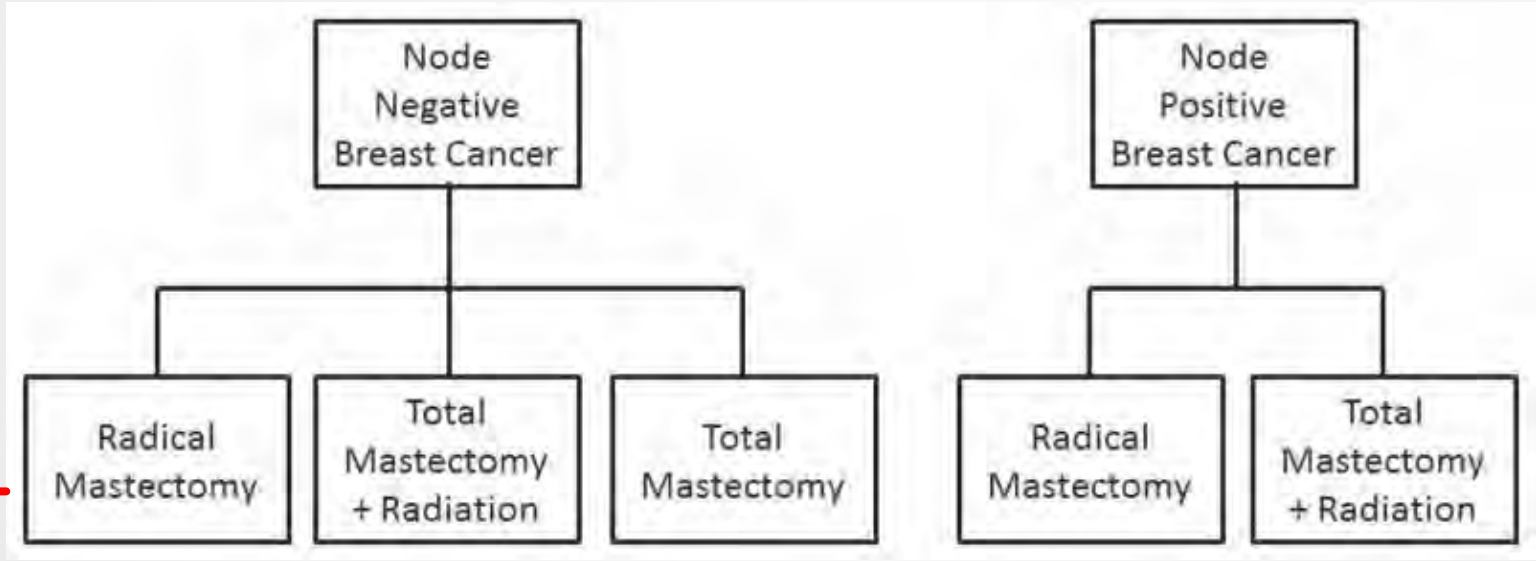
Accepted on May 3, 2021 and published at ascopubs.org/journal/ jco on July 19, 2021: DOI https://doi.org/10. 1200/JCO.21.00934 Practice Guidelines Committee approval: April 7, 2021 Reprint Requests: 2318 Mill Road, Suite 800, Alexandria, VA 22314; guidelines@ asco.org

Management of the Axilla in Early-Stage Breast Cancer: Ontario Health (Cancer Care Ontario) and ASCO Guideline

Muriel Brackstone, MD, PhD; Fulvia G. Baldassarre, MSc; Francisco E. Perera, MD; Tulin Cil, MD, MEd; Mariana Chavez Mac Gregor, MD, MSc; Ian S. Dayes, MD; Jay Engel, MBBCh; Janet K. Horton, MD; Tari A. King, MD; Anat Kornecki, MD; Ralph George, MD; Sandip K. SenGupta, MD; Patricia A. Spears, BS; and Andrea F. Eisen, MD.

Paradigm Shift from Halstedt – Stratified by **Clinical** Nodal Status

40% had positive nodes on pathology



Fisher B, et al. NSABP-B04 Trial (2002)

Set up as two parallel trials. (N=1665)

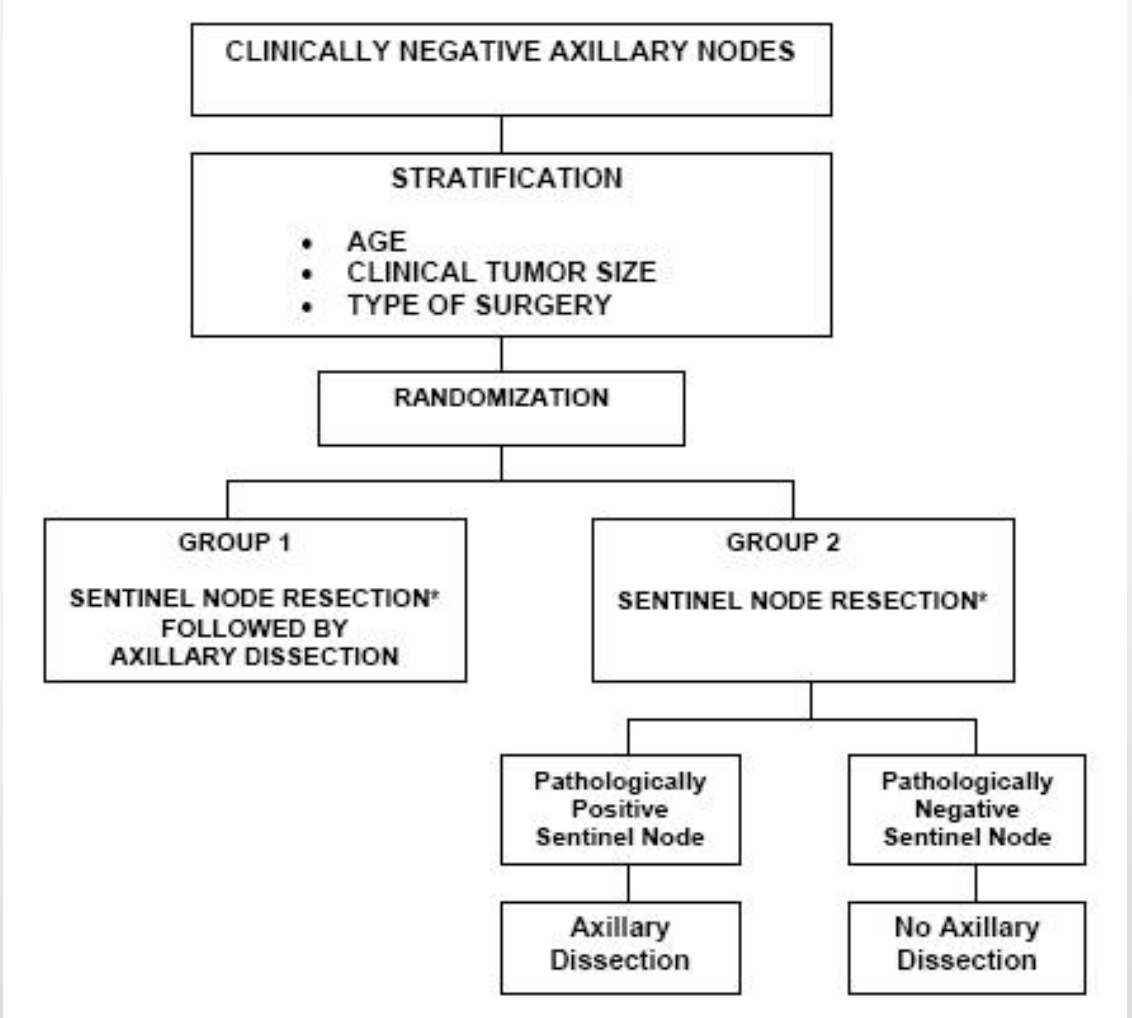
No significant difference in disease-free survival, relapse-free survival, distant disease-free survival, or overall survival between the groups categorized by node status.

Locoregional recurrence rate differed.

F

Introducing Axillary Sampling:

- NSABP B32 (N=5611)
- Comparing **clinically node neg** pts with neg SLN to ALND versus none
- SLN + Arm that had Pos Nodes = ALND;
- +Nodes NEVER UNTREATED
- Tc99m +/- Blue Dye
- Validated SLN Technique (lower FNR with more SLN)



Krag et al, Lancet Oncol 2010

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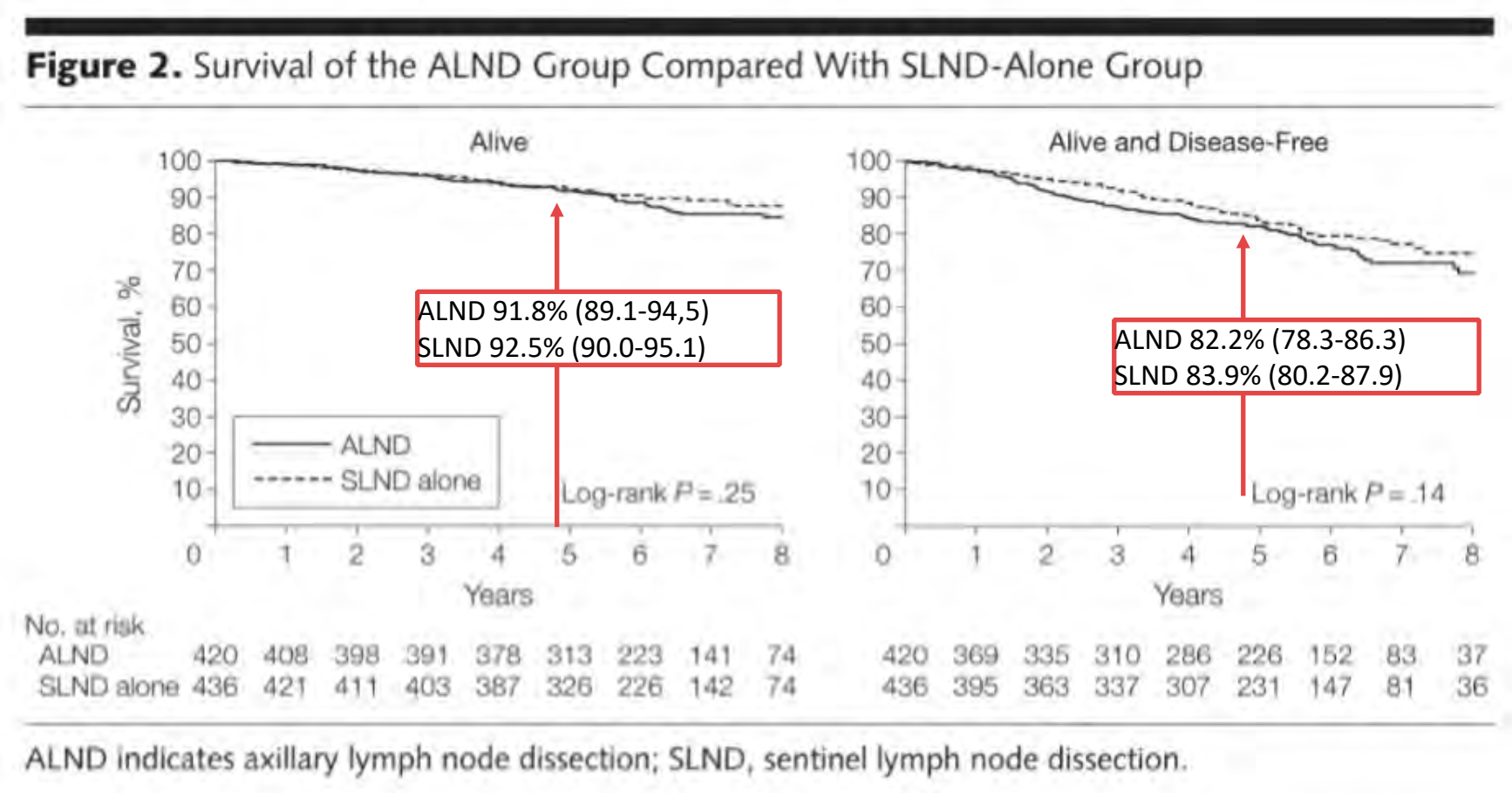
ACOSOG Z011 – RCT for Node + (ALND vs Not) + Rads



Giuliano et al, JAMA, 2017

N=856/1900

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What is the Benefit of Neoadjuvant Chemotherapy?

- Downstage Breast = Avoid resecting all original disease (in breast as well as in axilla), resect LESS breast tissue = Increased Breast Conservation, same survival
- Downstage Axilla = Avoid completing axillary dissection if restaging is NEG on Sentinel node
- Can participate in Surgical Trial if restaging nodes are POSITIVE and Radiation Trial if restaging nodes are NEG

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Regional Recurrence Rates with or without Axillary Dissection in Node positive patients after NAC and SLN

- 161 pts post NAC with residual node positive disease on SLN
- Single institution retrospective review
- 5.6% regional recurrence, majority in level 1&2 nodes
- Whether patients had SLN or ALND did not predict survival
- Lymphedema rates were 25% (ALND) versus 9% (SLN/Rads)

Ling et al, Advances in Radiation Oncology, 2020

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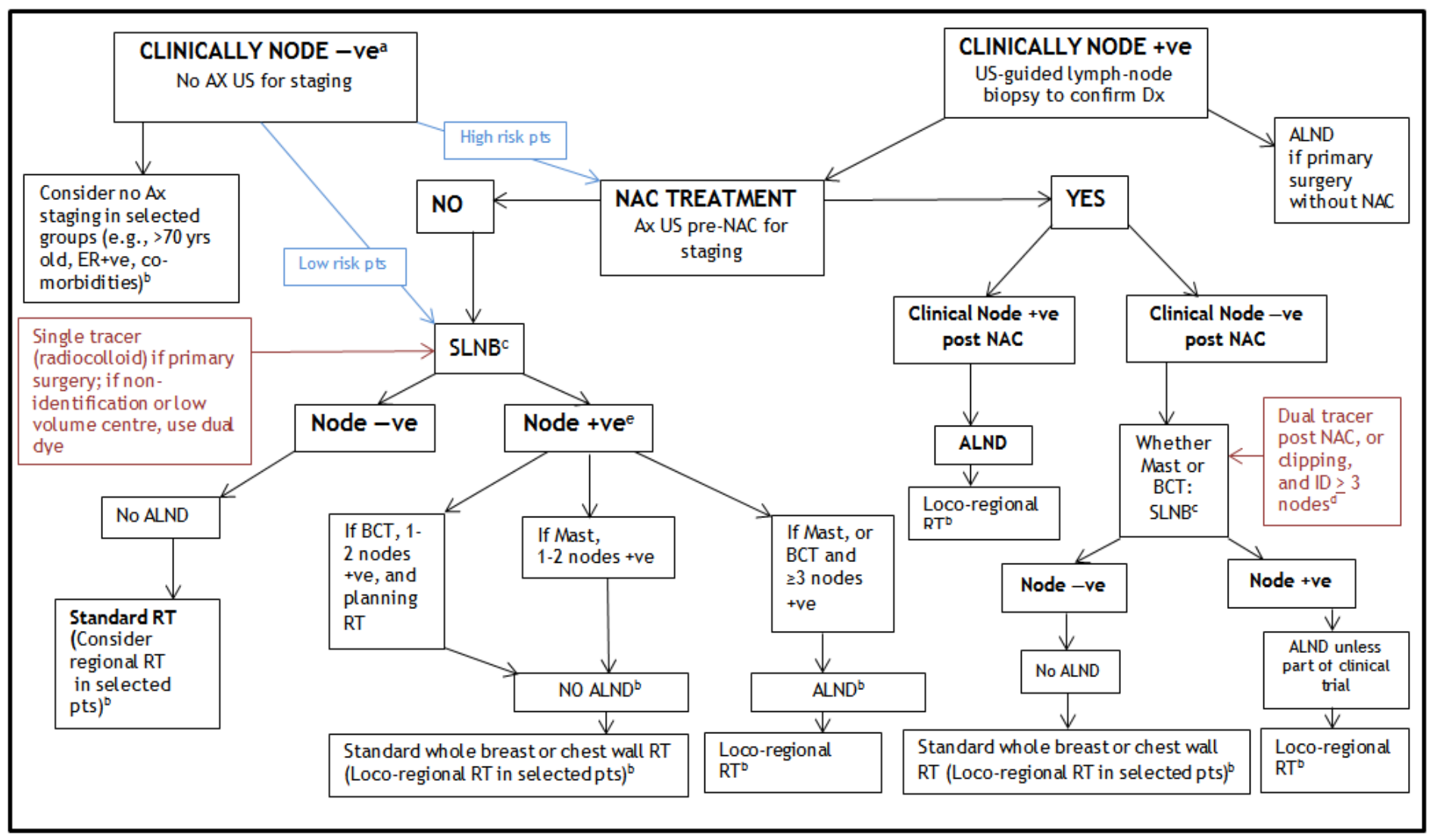
CLINICALLY NODE –ve[a]
No AX US for staging
CLINICALLY NODE +ve
US-guided lymph-node biopsy to confirm Dx
ALND if primary surgery without NAC
High risk pts
Low risk pts
Consider no Ax staging in selected groups (e.g., >70 yrs old, ER+ve, co-morbidities)[b]
NO
NAC TREATMENT
Ax US pre-NAC for staging
YES
Single tracer (radiocolloid) if primary surgery; if non-identification or low volume centre, use dual dye
SLNB[c]
Clinical Node +ve post NAC
Clinical Node –ve post NAC
Node –ve
Node +ve[e]
ALND
Loco-regional RT[b]
Dual tracer post NAC, or clipping, and ID ≥ 3 nodes[d]
Whether Mast or BCT: SLNB[c]
No ALND
If BCT, 1-2 nodes +ve, and planning RT
If Mast, 1-2 nodes +ve
If Mast, or BCT and ≥3 nodes +ve
Node –ve
Node +ve
Standard RT (Consider regional RT in selected pts)[b]
NO ALND[b]
ALND[b]
No ALND
ALND unless part of clinical trial
Standard whole breast or chest wall RT (Loco-regional RT in selected pts)[b]
Loco-regional RT[b]
Standard whole breast or chest wall RT (Loco-regional RT in selected pts)[b]
Loco-regional RT[b]

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Current Thrust of Breast Oncology

- **De-escalation of Systemic Treatment**
  - Oncotype DX/Mammaprint – genomic recurrence risk scores
  - Avoid Chemotherapy if risk score is low
  - Ongoing Trials to avoid Radiation if complete response to Chemotherapy
- **Increasing Breast Conservation**
  - Oncoplastic Surgery
  - Improve patient Quality of Life
- **Reducing Axillary Dissections**
  - Reduce lymphedema rates

Questions??

THANK YOU!

Dr. Dan Pepe
Dr. Vineet Nair