APPROACH TO BREAST CANCER MANAGEMENT

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DISCLOSURE

None to declare



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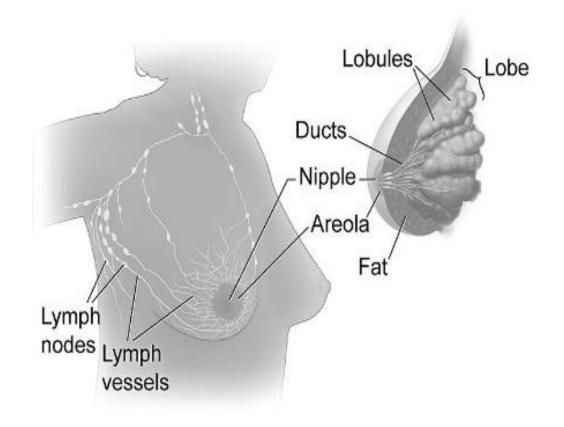
OUTLINE

- Overview
- Epidemiology
- Risk factors
- Pathogenesis
- Clinical presentation
- Assessment
- Management



OVERVIEW

- Breast cancer is a complex disease that affects many women.
- Early detection and prompt treatment are crucial to improving outcomes.
- Men form 1% of cases worldwide.
- Ghana- young age , advanced disease





INTRODUCTION

Increased risk of breast cancer with family history is known

- 20% and 25% of women diagnosed with breast cancer have a positive family history
- The actual risk that family history conveys depends on
 - The number of relatives affected
 - Their age at diagnosis
 - Having a first degree relative with premenopausal breast cancer greater risk >>>>> a first-degree relative with postmenopausal cancer



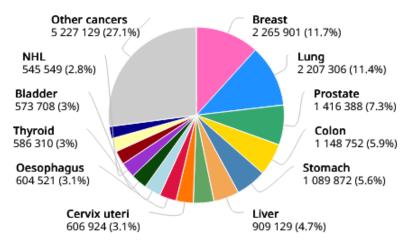
 One first-degree relatives with CA Breast (mother or sister), the risk is 1.7 to 2.5

Two or more first degree relatives (RR= 4-6 times)

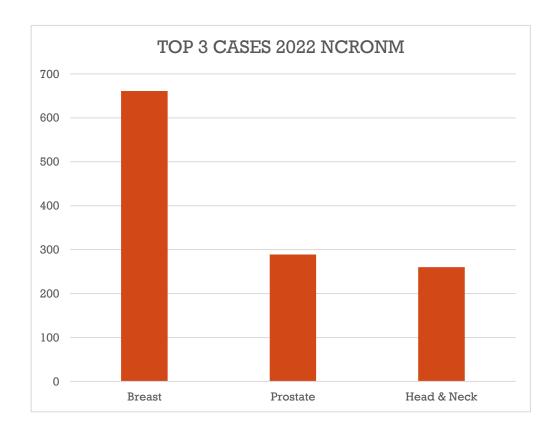
 Second-degree relative with CA Breast (aunt, grandmother), the risk is 1.5



EPIDEMICLOGY



Total: 19 316 798



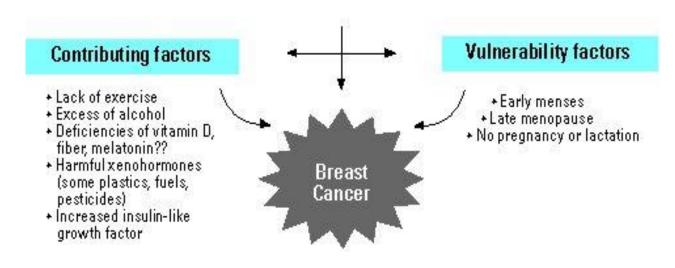


RISK FACTORS

Risk factors for breast cancer

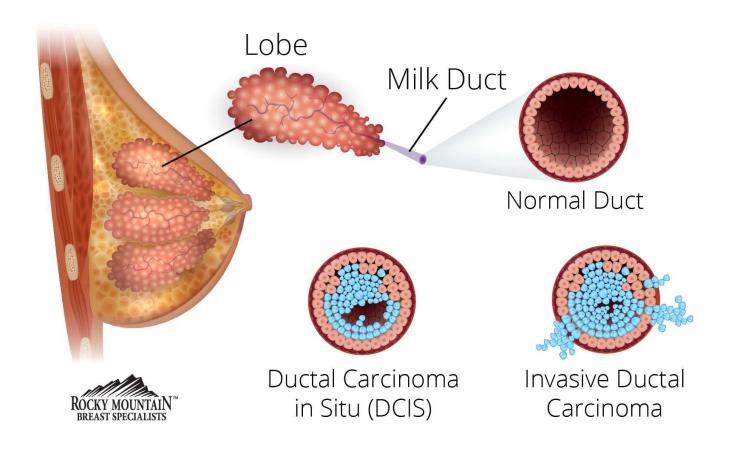
Direct factors

- Radiation, especially during puberty
 Inherited mutations



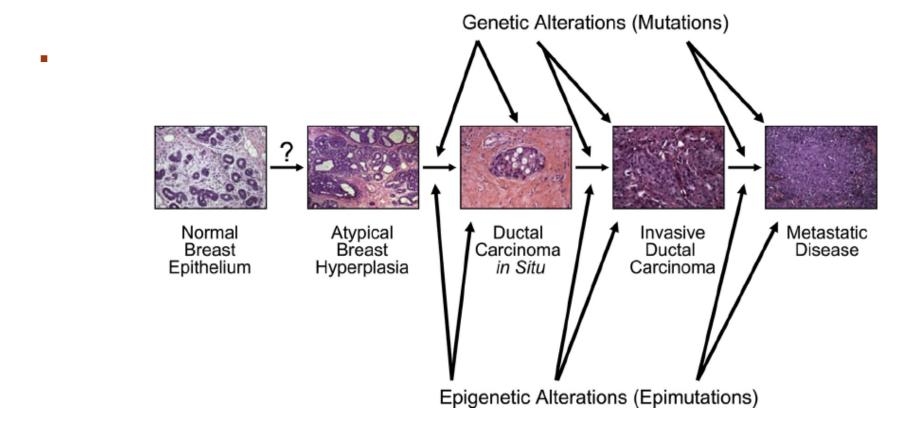


CLINICAL PRESENTATIONS





PATHOGENESIS





SCREENING

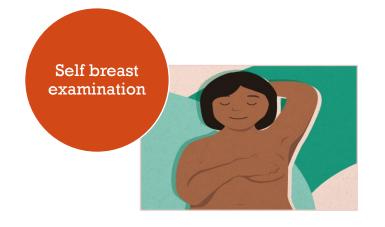








TABLE 59.6 BREAST CANCER SCREENING GUIDELINES

Age Group	Developed by the ACS and Endorsed by the ACR, SBI			
20–39	BSE optional; CBE every 3 y			
40–44	Women should have the opportunity to begin annual screening between the ages of 40 and 44 y (qualified recommendation)			
45-54	Women should be screened annually (qualified recommendation)			
55+	Women 55 y and older should transition to biennial screening or have the opportunity to continue screening annually (qualified recommendation)			
At increased risk	Consult with their doctors about the benefits and limitations of starting mammography screening earlier, having additional tests (i.e., breast ultrasound and MRI), or having more frequent exams			

Newer Screening Technologies

- Full field digital mammography (FFDM)
- Digital breast tomosynthesis (DBT)
- Molecular breast imaging
- Abbreviated (fast) MRI

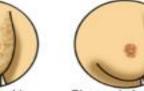
PRESENTATION

- A breast lump or thickening that feels different from the surrounding tissue
- Change in the size, shape or appearance of a breast
- Changes to the skin over the breast, such as dimpling
- A newly inverted nipple
- Peeling, scaling or flaking of the pigmented area of skin surrounding the nipple (areola) or breast skin
- Redness or pitting of the skin over your breast, like the skin of an orange









Change in skin color or texture

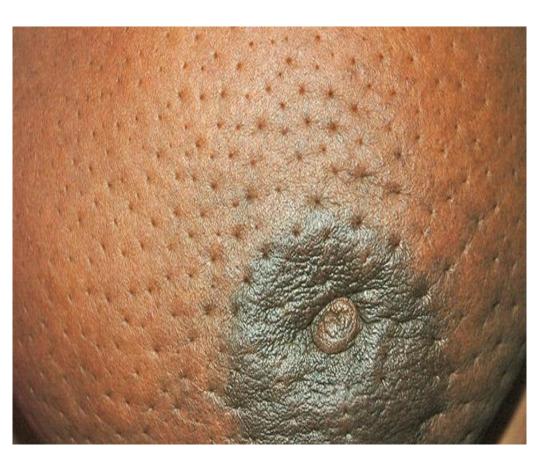
Change in how the nipple looks, like pulling in of the nipple.



Clear or bloody fluid that leaks out of the nipple



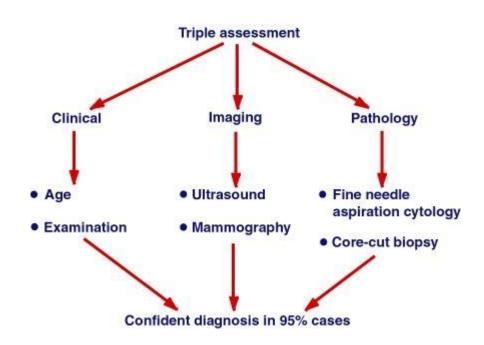
PRSENTATION

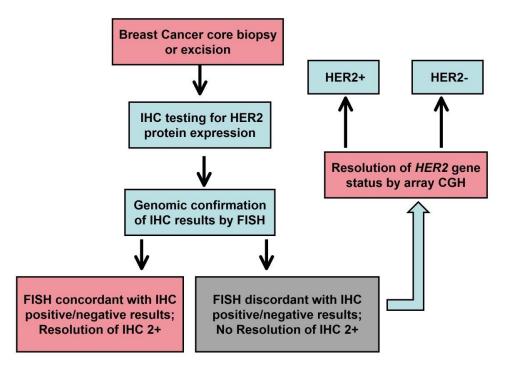






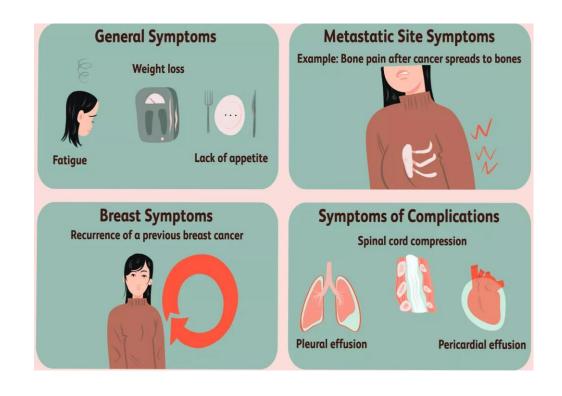
ASSESSMENT







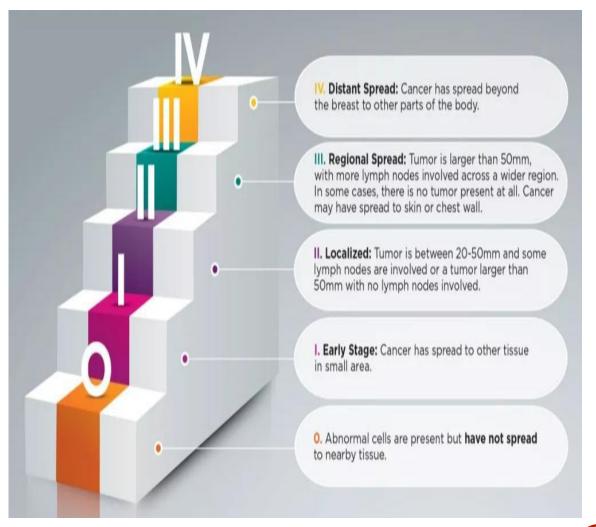
- HCG
- Fertility counseling/genetics referral PRN
- Breast MRI controversial (consider for young or BRCA+)
- T3, N1+, or symptoms: bone scan and CT chest/abd/pelv, +/- PET, +/- MRI
- Adjunctive markers of progression: CEA, CA 15–3, CA 27.29





STACING

Tumor size	Tumor size < 2 cm * T1	Tumor size 2-5 cm	Tumor size > 5 cm	Tumor extends to skin or chest wall
Lymph	N0	N1	N2	N3
Nodes	No lymph node metastasis	Metastasis to ipsilateral,	Metastasis to ipsilateral fixed	Metastasis to infraclavicular/
N		movable, axillary LNs	axillary, or IM LNs	supraclavicular LN, or to axillary and IM LNs
Metastasis	M0	M1	LNs=Lymph Nodes; IM=Internal Mammary	
M	No distant metastasis	Distant metastasis		



MANAGEMENT

MDT approach

- Clinicians/Oncologist
- Medical Physicist
- Radiation Therapist
- Dietician

Locoregional Therapy

- Surgery
- Radiation therapy

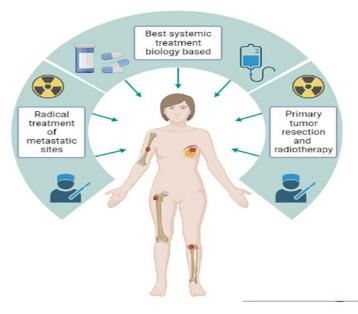
Systemic therapy

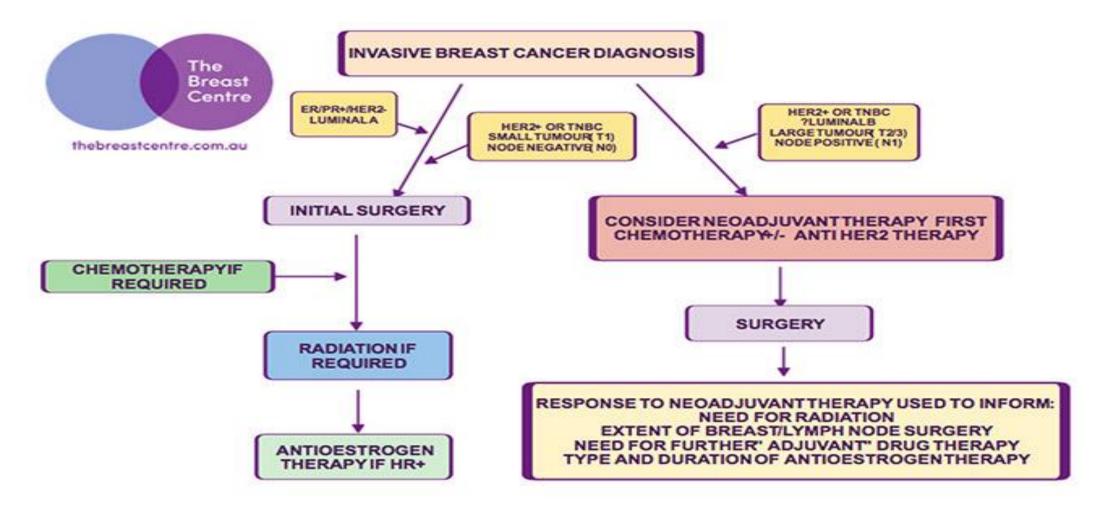
- Chemotherapy
- Immunotherapy
- Targeted therapy
- Endocrine therapy

MDT meetings (Tumor Boards) broadly aim at improving:

- Communication
- Coordination
- · Decision making







BREAST CANCER TREATMENT OVERVIEW



THE IMAGING PHASES OF THE BEST PRACTICE

Diagnosis & Staging

- CT
- · MRI
- · PET
- SPECT

Treatment Simulation

- CT + optical lasers
- 4D CT

Treatment Planning

- CT
- · MRI MRS
- · PET
- SPECT

Treatment Localistation (IGRT)

- · CBCT or CT
- kV \MV Images

Treatment Delivery (IGRT)

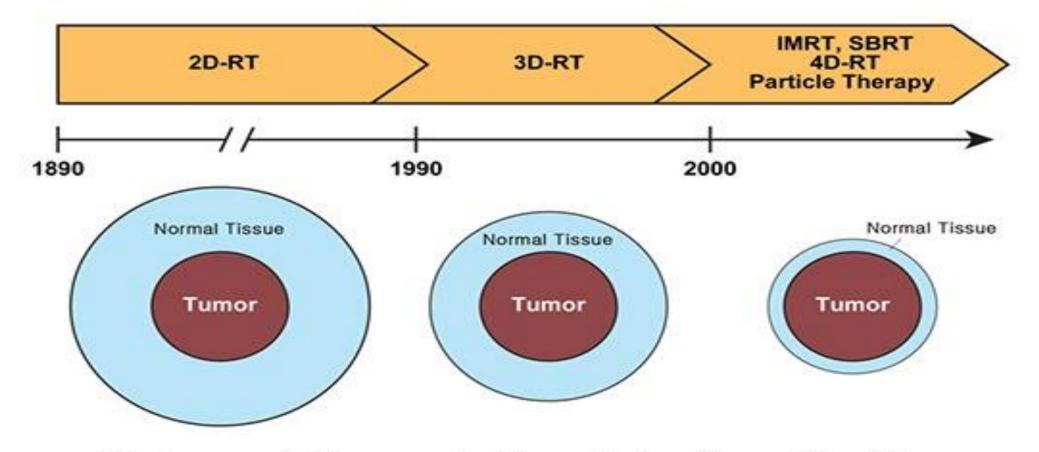
- Optical lasers
- 4D CT
- Fluoroscopy

Response Assessment

- CT
- · MRI
- · PET
- SPECT



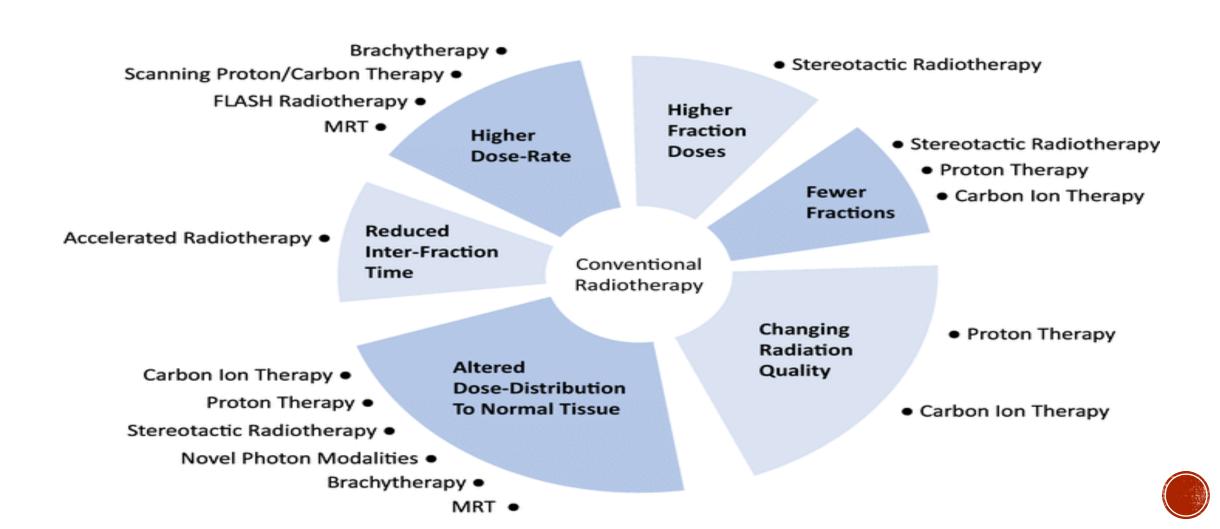
EVOLUTION OF MODERN RADIOTHERAPY



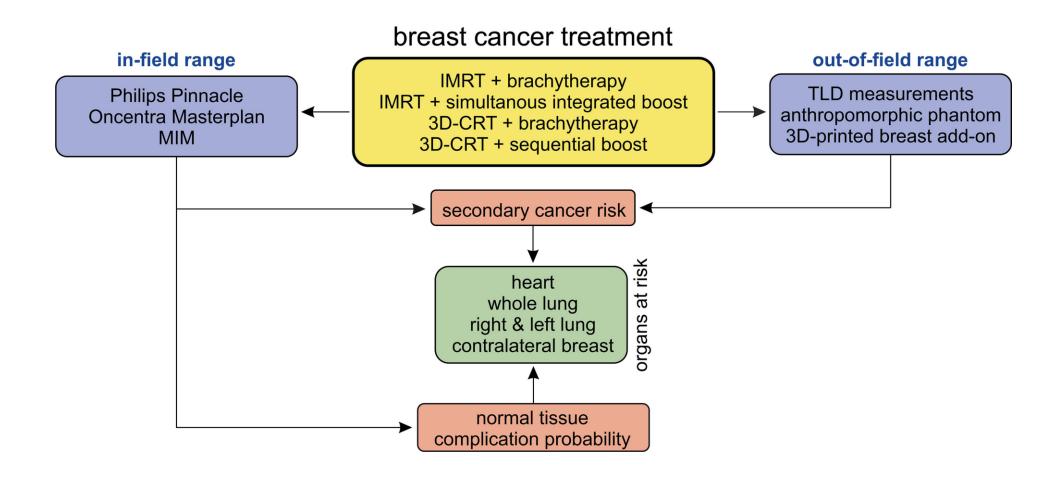
Modern radiotherapy is characterized by minimizing the volume of normal tissue being unnecessarily irradiated



TREATMENT

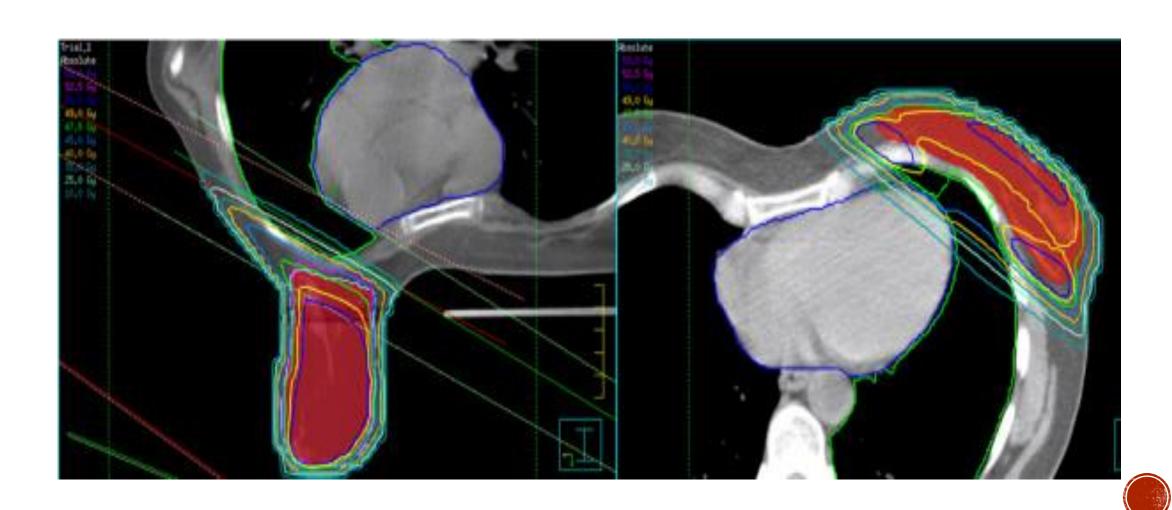


TREATMENT





TREATMENT POSITIONS



FOLLOW UP

- Interval H&P q 6 months x 5 years, then annually.
- Annual mammogram
- Women on tamoxifen: gynecologic exam if the uterus present.
- Women on AI: periodic bone mineral density.
- Psychosocial support.
- Support groups.



PREVENTION

- Maintain a healthy lifestyle
- Screening
- Breastfeeding and Pregnancy
- Genetic testing and counselling



Breast Cancer Prevention

- Modify risk factors like:
 - Reducing or eliminating alcohol consumption
 - Maintaining ideal weight
 - Exercising on a regular schedule
- Several drugs have been studied as chemopreventive agents.
- But the only agent for which mature data from clinical trials are available is tamoxifen



Prophylactic Surgery

 Bilateral total mastectomy or bilateral salpingoophrectomy may be beneficial in select high risk groups

According to series done by Mayo hospital, bilateral

prophylactic mastectomy there is 89.5% risk reduction in breast carcinoma (p<0.001)



CHALLENGES IN GHANA

High mortality

- Advanced staged disease
 - Healthcare access and utilisation
 - Psychological and emotional factors
 - Sociocultural and community factors
- Young age
- Tumour molecular subtype



Breast cancer knowledge

Scientists

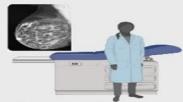


Physicians

Patients

Key points to apply

Breast cancer screening (BCS) should be pursued only if:



Effective diagnosis with professionals and tools are available



Previous evidence or studies reagrding the BCS application have been validated and are accesible



Human and financial ressources are sustainable to maintain BCS quality

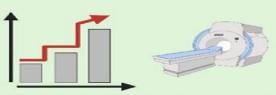
Early diagnosis strategies should focus on:



Providing timely access to cancer treatment



Reducing the barriers of care and access to diagnostic services



Increasing the number of identified patients at an early stage by accurate diagnostic tools



TAKE HOME MESSAGE

- Breast cancer is common in a fairly younger population group.
- •Early detection increases survival outcomes.
- Multidisciplinary approach is the gold standard for patient care.



THANK YOU



