



**Breast Cancer
Screening in the
U.S.A.**

Paris, France

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The Plan

- To review the current recommendations of American Cancer Society and American College of Radiology for screening mammography
- To discuss the role of other imaging modalities used to screen for breast cancer in the United States

An Overview

- Excluding cancers of the skin, breast cancer is the most common cancer in women, accounting for more than 1 in 4 cancers diagnosed in the US**
- White women have a higher incidence of breast cancer, but African American women have a higher incidence before age 40 and are more likely to die from breast cancer at every age**

Screening

- Numerous clinical trials have evaluated the impact of the three most commonly recommended screening tests:

- **Breast Self-Examination (BSE)**



- **Clinical Breast Examination (CBE)**



- **Mammography**

X-Ray of each breast which is taken while carefully compressed



Screening Guidelines

American Cancer Society



BSE

Monthly (20)



CBE

**3 Year (20-40)
Annually (40+)**



Mammogram

Annually (40+)

Role of Screening Mammography

- Screening with mammography has been shown to decrease mortality from breast cancer**
- Mammography is the mainstay of screening for occult disease**
- Mammography has its limitations, and other imaging modalities, such as ultrasound and MRI, have been used as adjunctive screening tools, mainly for women with increased risk for developing breast cancer**

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Screening with Digital Mammography

- Several studies have compared digital mammography with film-screen mammography and found equivalent sensitivity for detecting breast cancer
- However, digital mammography performed better in perimenopausal women, those younger than age 50, and those with dense breasts

Age at Which Screening Mammography Should Stop

- When life expectancy is <5-7 years based on age or comorbid conditions**
- When abnormal results would not be acted on because of age or comorbid conditions**

Screening Sonography in Dense Breasts

- Screening mammography is an imperfect tool that can miss cancers, particularly in dense breasts
- In published results from 42,838 examinations at 6 centers, it has been shown that screening sonography may detect some cancers that are undetected by mammography and breast exam

Pros and Cons of Screening Sonography

- Well tolerated, noninvasive, and relatively inexpensive
- Operator dependent if not performed on a dedicated 3D unit
- Further studies are needed to better define the target population and see its effects on patient outcomes
- At the present time, screening sonography has not been shown to decrease mortality from breast cancer as has mammography

Ultrasound in addition to mammography

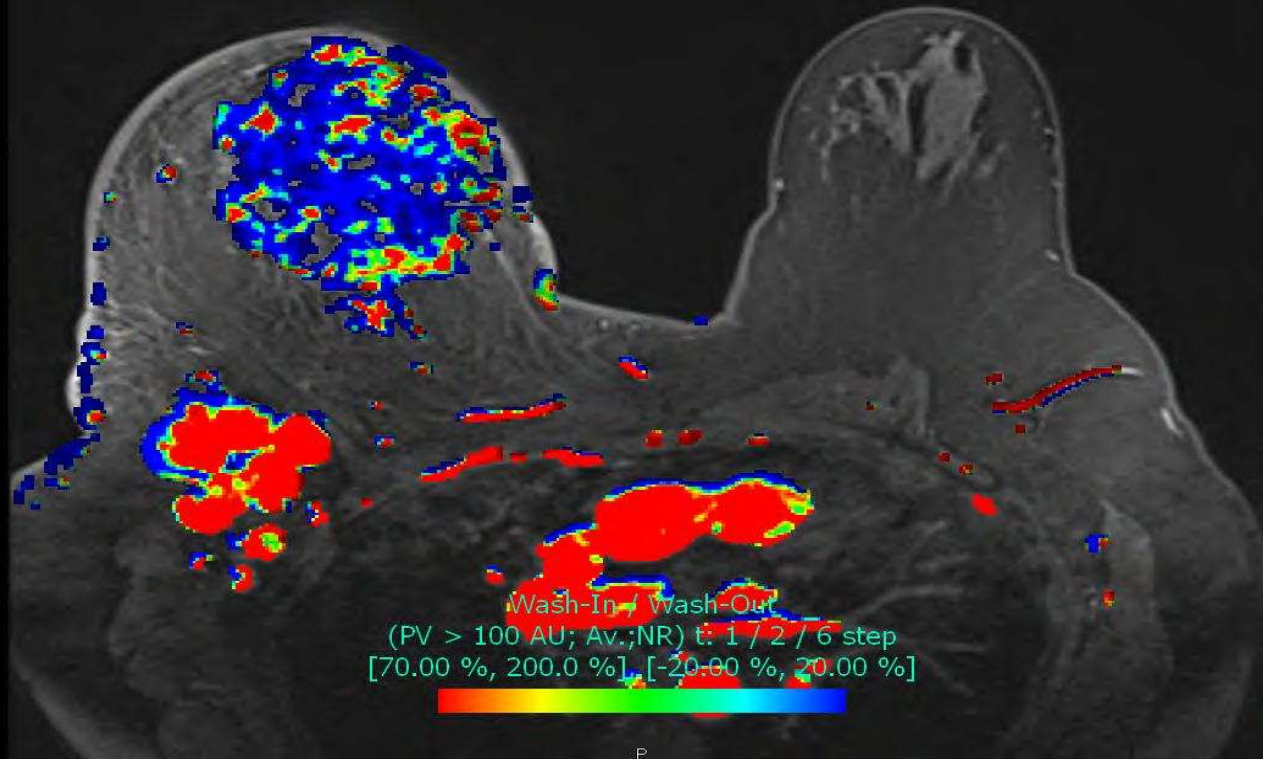
- Can be considered in women with dense breasts
- Can be considered in high-risk women who cannot have MRI

MRI Indications

- Proven BRCA mutation carriers annually starting at age 30**
- Untested first-degree relatives of BRCA carriers, annually starting at age 30**
- Women with a history of chest irradiation, annually, starting 8 years after the completion of XRT**

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Shands Jacl
61 years, 2/27/1
7/1/20



Large tumor in right breast

MRI Indications

- In women with >20% of lifetime risk on the basis of personal history of breast cancer or ovarian cancer, or biopsy-proven lobular neoplasia, or atypical ductal hyperplasia**
- Women with newly diagnosed breast cancer and normal imaging of the contralateral breast, single MRI at the time of diagnosis may be used to evaluate the presence or absence of contralateral breast cancer**

The Issues

- **There is no national breast cancer screening program in the United States**
- **Universal access to preventive measures has remained controversial**

US Preventative Services Task Force Statement

- USPSTF announced that women in their 40s should not have routine mammography, nor clinical or self breast exams**
- They said that women 50-74 should have mammograms every 2 years instead of annually**
- They admitted that screening every 2 years would result in unnecessary loss of lives but the number of false positives would be reduced as would anxiety related to breast care**

US Preventative Services Task Force Statement

- They also concluded that current evidence is insufficient to assess additional benefits and harms of either digital mammography or MRI instead of film-screen mammography as screening modalities for breast cancer**

The Issues

- **No experts in mammography or imaging were on the Panel**
- **The USPSTF agreed that mammography screening saves lives beginning at age 40**
- **Starting screening at age 50 would sacrifice 33 years of life/1,000 women screened that could have been saved by beginning to screen at age 40**

**These unfounded
recommendations ignore the
valid scientific data and place
many women at risk of dying
unnecessarily from a disease we
have made significant headway
over the past 20 years**

Conclusion

- **USPSTF recommendations have caused much confusion and worry among women**
- **Organizations publicly opposing the USPSTF guidelines include American Cancer Society, American College of Surgeons, American College of Radiology, and National Breast Cancer Foundation**
- **USPSTF recommendations should be excluded from health care reform**
- **Mammograms have always been an important life-saving tool in the fight against cancer**

Conclusion

- We must use this controversy as an opportunity to improve screening breast imaging
- We must better define the term of “effectiveness”
- We must better stratify the patients based on prognostically relevant abnormalities

Conclusion

- We must minimize over-diagnosis, over-sampling, and over-treatment
- We, as physicians, must make certain that employers, policy makers, and the public are aware of the importance of screening mammography and the consequences of changing screening guidelines

Masood S. How to Restore Public Trust about Breast Cancer Screening? An Opportunity to Reinforce the Need for Further Advances in Science and Technology and Access to Care. The Breast Journal 2010; 16(1):1-3.

Prone to Error: Earliest Steps To Find Cancer

Prone to Error: Earliest Steps To Find Cancer

From Tiniest Samples to Needleless Surgery

BY STEPHEN HALL
When Luigi had required a biopsy appointment, the large blue chair in his waiting room felt like a throne. Luigi had been in a waiting room at a clinic in Italy for a while. He had been told that the biopsy would be a simple procedure, but he had been waiting for a while. He had been told that the biopsy would be a simple procedure, but he had been waiting for a while. He had been told that the biopsy would be a simple procedure, but he had been waiting for a while.

Dr. Luigi had been told that the biopsy would be a simple procedure, but he had been waiting for a while. He had been told that the biopsy would be a simple procedure, but he had been waiting for a while. He had been told that the biopsy would be a simple procedure, but he had been waiting for a while. He had been told that the biopsy would be a simple procedure, but he had been waiting for a while.



Participants in a study on using HIV-related blood tests to detect breast cancer were recruited Monday in Ndola, Zambia.

2 AFRICAN STUDIES GIVE WOMEN HOPE IN FIGHTING H.I.V.

FOCUS ON PREVENTION

Payments Pending — Vaginal Gel May Be More From Public

BY EILEEN KROGER
VLSI (Vaginal Lubricant Study) is an AIDS-related study that is being conducted in South Africa. It is a study that is being conducted in South Africa. It is a study that is being conducted in South Africa. It is a study that is being conducted in South Africa.

Senate Is Set To Extend Aid To the Jobless

BY THE EDITOR
The Senate is set to extend aid to the jobless. The Senate is set to extend aid to the jobless. The Senate is set to extend aid to the jobless. The Senate is set to extend aid to the jobless.

Iraq's Conflict, Reflected in a Family Tragedy

BY THE EDITOR
Iraq's conflict is reflected in a family tragedy. Iraq's conflict is reflected in a family tragedy. Iraq's conflict is reflected in a family tragedy. Iraq's conflict is reflected in a family tragedy.

A City Outsources Everything. California's Sky Doesn't Fall.

BY STEPHEN HALL
The city of San Francisco has outsourced everything. The city of San Francisco has outsourced everything. The city of San Francisco has outsourced everything. The city of San Francisco has outsourced everything.



Abdel Almond, held by the police in Somalia, was released in killing his father, Hassan Almond.

To Get an Internship at City Hall, It's Not Always What You Know

BY THE EDITOR
To get an internship at City Hall, it's not always what you know. To get an internship at City Hall, it's not always what you know. To get an internship at City Hall, it's not always what you know.

Evolution of a Neighborhood

The city of San Francisco has evolved. The city of San Francisco has evolved. The city of San Francisco has evolved. The city of San Francisco has evolved.

A Tough-Speaking Warrior

BY THE EDITOR
A tough-speaking warrior. A tough-speaking warrior. A tough-speaking warrior. A tough-speaking warrior.

Big Profits at Dubai Air Lines

BY THE EDITOR
Big profits at Dubai Air Lines. Big profits at Dubai Air Lines. Big profits at Dubai Air Lines. Big profits at Dubai Air Lines.

Cycling's Unwritten Rules

BY THE EDITOR
Cycling's unwritten rules. Cycling's unwritten rules. Cycling's unwritten rules. Cycling's unwritten rules.

Cool Books

BY THE EDITOR
Cool books. Cool books. Cool books. Cool books.

