Screening Mammography as an example of “Access to Healthcare”
A starting point for safe affordable medical treatment

Prof C A Benn
“to screen or not to screen...may be the question?
Maybe it is “not in the stars to hold our destiny but in ourselves” and as doctors we should be “better 3 hours too soon than a minute too late”

“to thine own self be true”
SCREENING GUIDELINES IN SA
We have come a long way…
## International screening Guidelines

<table>
<thead>
<tr>
<th>Organisation</th>
<th>American Cancer Society</th>
<th>American College of Surgeons and ACOG</th>
<th>United Kingdom (NHS)</th>
<th>US Preventative Services Taskforce</th>
<th>American Association of Family Physicians</th>
<th>Canada</th>
<th>Australia</th>
<th>France</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is screening recommended?</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<td>Yes</td>
<td>Yes</td>
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<tr>
<td><strong>Mammogram</strong></td>
<td>Every year from 40 years</td>
<td>Every year from 40 years</td>
<td>Every 3 years from 50 years</td>
<td>Every 2 years from 50</td>
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<tr>
<td><strong>Clinical Breast Exam</strong></td>
<td>Yes</td>
<td>Yes</td>
<td>No additional benefit</td>
<td>No additional benefit</td>
<td>Neutral</td>
<td>No additional benefit</td>
<td>Neutral</td>
<td>Neutral</td>
</tr>
<tr>
<td><strong>Self Breast Exam</strong></td>
<td>Yes</td>
<td>Yes</td>
<td>Not recommended</td>
<td>Not recommended</td>
<td>Neutral</td>
<td>Neutral</td>
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International screening Guidelines

• screening protocols
Sole mandate for screening is twofold

• Death from cancer must be decreased
• The resultant treatment options should be less pervasive, invasive and more desirable (both from a cost and patient perspective) over treatments offered at time of clinical presentation
Why are there different guidelines?

• No evidence for baseline mammogram between 35-39 (1992)

• Cochrane review in 2003 found no data to support lives saved due to clinical examination or breast self-examination

  – Increased anxiety in patients (cancer fear)
  – Increased risk of false positive results

  – (9.8 biopsies to detect 1.8 Ca in 40-49 years vs. 10.8 to detect 3.4 Ca in >50 [per 1000])

• Health economics:

  – 1904 women 40-49 years to detect 1 Ca vs. 1339 women >50)

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What does the independent review say?

Absolute benefit

• 1 death avoided from breast cancer for every 100-2000 women screened

• Best estimate 1 death prevented for every 250 women screened

• Approximately 1400 breast cancer deaths prevented each year
Information for Women Attending Breast Screening
NHS Breast Screening: ‘The Facts’

1995 Version – Risks
‘Many women find the test uncomfortable and some find it painful’  This should last no longer than the test – just a few minutes
‘Like other medical tests, mammography is not 100% accurate’

1995 Benefits
‘Breast screening makes sense. It could save your life’
‘I crudely estimate that that an additional one to three deaths might be expected from other causes for every breast cancer death avoided.’
Michael Baum BMJ 346 27 2013
Risk of Over-diagnosis

‘If I am given a cancer diagnosis during the period of screening, what is the likelihood of over-diagnosis?’

- 19% or 1 in 5
but more commonly quoted as:

‘for each breast cancer death presented, three cases will be over-diagnosed and treated’
Information for Patients 2013
What is required and appropriate

Information relating to:

• Rationale and process
• Likelihood of diagnosis of cancer
• Benefits
• Risks
  • - false positive (over-diagnosis)
  • - false negative
  • - over-treatment
What would happen to 200 women by the time they are 80, if they have breast screening every 3 years from the age of 50 to 70.

- 15 women are treated for breast cancer.
- 3 of these women die of breast cancer even though they were screened.
- 3 of these women are overtreated.
- 1 of these women avoids dying from breast cancer.
NHS Breast Screening
Helping you decide

Latest version
What happens to 100 women each time they have breast screening

100 women have breast screening

96 women have a normal result

4 women need more tests

These women will receive further invitations for breast screening every 3 years

3 women have no cancer found

1 woman is diagnosed with cancer
Screening: A cautious word

- Health economics
- No local guidelines
- Assess your patient’s medical aid
- Aware government units offering high standard of mammography
- Be careful of mobile units

- Safest to start at 40
What other methods of imaging are available?

- **Ultrasound**
  - Useful adjunct to mammography, especially in young and dense breasts
  - Poor specificity when used alone for screening due to failure to pick up microcalcs
- **MRI**
  - Excellent for 3D images and good spatial resolution allowing enhanced pick-up of Ca and potential multi-centricity and residual disease
  - ACS has established guidelines for MRI:
    - Screening in BRCA or high risk patients
    - Post-diagnosis assessment for Ca especially lobular
- **Thermography**- no evidence
- **Breast-specific molecular imaging**
Value of Screening in SA

- Complete pathological response to chemotherapy
Why do women present late?
What drives failure to screen

• The effect of Advanced breast cancer on quality of life
DIAGNOSTIC CHALLENGES

• There is no screening
• Chain of command........
• Who does the biopsies and why
• No eyes on fingers
Not all screening is beneficial

- What biopsies...........
- when to drop in markers
- When to do biopsies
- What to remember ..
How do we fix this?

There is no other way because I’m always right.

I don’t have a big ego, I just can’t get over how incredibly awesome I am.
Does screening have to be radiological

- Sex
- Age
- Hormones
- Genetics
- Exogenous

- Genetic Lotto
Community Based Screening
What are the real issues
TEAMWORK
Share Victory. Share Defeat.
Translational Radiology

- Team of the radiologist and surgeon should meet
- More than reading the radiology report,
- Ultrasound in a specialist unit can determine whether there is cancer in the lymph nodes, number and size of lymph nodes involved, and core the lymph nodes
Target for Improving Care

Low Performance

High Performance
Target for Improving Care

Low Performance

High Performance

Change
Quality Certification . . .

• Has created a higher and more uniform level of breast care
• Has taught us how to work in a truly multidisciplinary fashion
• Has taught us how to measure ourselves and compare ourselves with others
• Has shown that measures must adapt to the continuous transformation of new ideas and treatments
Current Breast Care from screening to post treatment
Are we at fault

"It helps doctor's morale. Each one gets to put themselves up on a pedestal for a day!"

"I do not think I'm God. God-like, yes, but not God."
No nirvana

PERSEVERANCE

"Do or do not. There is no Try"
like a rainbow...

A few driven clinicians across the country, who although are as unique as each colour

- strive daily towards the pot of gold of true excellent patient care
- ensuring an integrated, education orientated, multidisciplinary approach; with cost effective service delivery and high quality patient care