“A Long walk to Freedom”
From Women’s Day to the Big 5
Breast Cancer Initiatives in Southern Africa
From Pink Flamingos to Predators

Prof Carol Benn
Estimated Breast Cancer Incidence
Worldwide in 2008

Estimated Breast Cancer Mortality Worldwide in 2008

GLOBOCAN 2008, International Agency for Research on Cancer
Breast Cancer in South Africa

- Most common cancer in women in South Africa
- Increasing in incidence
- Awareness especially in African women in rural areas is very low
- Between 60 and 80 percent patients seen in clinics have locally advanced disease
- The registry is pathology based and not population based

......so true incidence is unknown
SEER data 2013

Breast cancer rates are highest in people aged 55-64 years.

Median Age At Diagnosis

All HJBCC 55
Black pts 52
THEN

EARLY DETECTION SAVES LIVES.

NOW

WAITING TEN YEARS SAVES MONEY.

PREVENTIVE SVCS. TASK FORCE

BREAST CANCER

BREAST CANCER

PREVENTIVE SVCS. TASK FORCE

1105

THIS WEEK IN THE JOURNAL

ORIGINAL ARTICLES

1113 Expression of Human Herpesvirus 8 in Primary Pulmonary Hypertension
C.D. Cool and Others

1123 Withdrawal of Mechanical Ventilation in Anticipation of Death in the Intensive Care Unit
D. Cook and Others

1133 A Comparison of Two Intensities of Warfarin for the Prevention of Recurrent Thrombosis in Patients with the Antiphospholipid Antibody Syndrome
M.A. Crowther and Others

1130 Brief Report: Growth Hormone Insensitivity

PERSPECTIVE

1107 Kaposi's Sarcoma–Associated Herpesvirus — The High Cost of Viral Survival
E. Cesarian

1109 Decisions at the End of Life
J.M. Dazlen

1110 New Revelations about the Role of STATs in Sutature
E.A. Eugster and O.H. Pescozit

EDITORIAL

1177 Treatment of the Antiphospholipid Syndrome
M.D. Lockshin and D. Erkan

1105 1107 1109 1110 1117

SEPTEMBER 18, 2003

www.nejm.org
Understanding risk factors

- Sex
- Age
- Hormones
- Genetics
- Exogenous
- Genetic Lotto
Locally advanced breast cancers

- Burden of disease in LMI countries
- Shortage of clinicians
- Insufficient radiation machines
- High percentage of Locally Advanced Breast Cancer (LABC)
- Lack of reconstruction in LABC
- Access to care
THE MORE IN BREAST CANCER CARE EX AFRICA SEMPER ALIQUID NOVIG

breast health foundation

NAPBC
NATIONAL ACCREDITATION PROGRAM FOR BREAST CENTERS
ACCREDITED BREAST CENTER
A QUALITY PROGRAM OF THE AMERICAN COLLEGE OF SURGEONS

You'll miss the best things if you keep your eyes shut.

Dr. Seuss
Keepinspiring.me
Awareness: I am lion ... hear ME ROAR

• Ignorance as to disease presentation and fear results in 70% of women presenting with locally advanced breast cancer (False)

• There in no screening program in South Africa
• True

• Some of the medical insurances fund mammography, should the woman decide to request a mammogram?
• ...........T and F

• Education is inexpensive awareness
Education needs to be Culture specific.......with Community navigators.
Health Care Role Model
Currently 2 health care models are available in South Africa

• A private model based on medical insurance funding, which allows access to private health care facilities.

• Problems ....for many patients many medical aids offer minimum to little support.....not an aid.....an insurance raid

• Public services: for uninsured patients, usually those of lower socio-economic background, who access state run facilities to diagnose nor treat.
10% of patients are new cancers and further treated at HJH
List determined by consultant on and not patient choice

Calling into the BCCE helpline gives the offer to contact HJH.
Doctors at Milpark refer to the nearest Public hospital to provide breast specific services (HJH Breast Clinic)
Cosmopolitan Unit

- 65% black patients; 18% white, small bias Asian 9% (7%)
- This breakdown reflects Johannesburg

- 61% stage 3 and 4
- 28% under age 45
- 8% under 35
- 12% over 75
HJH and NBC

- The 2 units see on average 25-30 new breast cancer patients per week
- 10 and 15 being diagnosed in the government based unit situated at the Helen Joseph Hospital - The majority of the patients present as locally-advanced disease and are referred immediately for primary chemotherapy.
- Patients from many private units access HJH…..the problems:
  - Often after private radiology and biopsies R140000
  - After “emergency breast cancer surgery”
• 3868 new patients seen in 2012

  ○ 344 patients with new malignant diagnosis

  - Invasive Ductal Carcinoma, 292
  - Invasive Lobular Carcinoma, 12
  - DCIS, 13
  - Sarcoma, 5
  - Lymphoma, 7
  - Other, 5
Breast Centres 'Without Walls’

- The many clinicians involved in breast care including medical, surgical, and radiation oncologists, maintain separate practices in different locations.

- Although women do not receive their care in a single location or facility, a nurse coordinator typically schedules the visits.
Translational Radiology:  
*Clinical radiology meeting*

- 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
- Judicious use of MRI scans
- So many radiology units.....
- Where is the audit on numbers of biopsies; positive and negative; number of self referred MRI;
- Part of accreditation was CPR (clinical path; radiol review )
- Unit radiology MDM
• What biopsies...........
• When to drop in markers
• When to do biopsies
• What to remember........
• NOT AN EMERGENCY

HERE IS THE MISSING FUNDING STRUCTURE
Reason for the radiology navigator

Expense
Review the review
Alternatives
DIAGNOSTIC CHALLENGE

• Because no screening
• Chain of command........
• Who does the biopsies and why
• No eyes on fingers

The patient presents with a lump in the left supra nipple region. On mammogram a dense area is present laterally left breast. This is not necessarily the site of the palpated lump. One or two other areas of increased density are noted. Note the breasts are generally dense which reduces sensitivity of mammography - exercise caution as a mass can be missed amongst such dense glandular changes.

COMMENT
The palpated lump superior to the left nipple should be excised and biopsied for a definite diagnosis. The mammogram shows no clear mass but a follow up mammogram needs to be done six months in view of multiple areas of increased density.

Patient complains of a 3 month history of a right nipple inversion. On clinical examination there is nipple inversion present with slight distal areolar in the 9 o’clock position of the right breast. Sonar and mammogram is negative in this region. I would suggest however that the patient has a surgical opinion for a possible exploration.
An oncology multidisciplinary meeting

Each unit should have a written documentation of:

• local treatment guidelines
• which international guidelines are followed (NCCN)
• Cases should be discussed that may fall outside of guidelines or require specific non-guideline based treatment choices
Staging and risk assessment

• Routine staging examinations should include physical examination, including liver enzymes, alk. phos., ca, menopausal status and bone density is not a routine
• Once off prior to treatment start
• Then only if symptomatic
• Mammography and ultrasound is yearly post diagnosis (not 6 monthly)

• Metastatic work-up is not a Ca 153….only to measure metastatic response to treatment
• Variable definitions of what tests to do….but we over test; service and need more holistic approach to post treatment survivorship
BC (before chem o)
The surgeon was asking

William Halsted

The answer to the problem came from America in the form of rubber gloves. William Halsted, a leading surgeon, started using them when his girlfriend and nurse complained of dry hands from the carbolic acid. He then introduced caps, masks, and gowns for surgery.
3 Modalities

• Systemic (oncology)
  1. Chemotherapy
  2. Endocrine therapy
  3. Target therapy
  4. Immunotherapy
  5. Radiation
• Loco regional treatment
  1. Surgery
  2. Radiation therapy
Who gets what surgery

Who should get a mastectomy

- Inflammatory carcinoma
- Multi-centric carcinomas
- Pagets
- Lobular carcinomas (some)

Big prostheses and small breast

Patient choice

Way more BCT is done today due to the expanded needs for radiation treatment
**Surgical expertise**

- Most patients in outlying areas are offered mastectomies, with a subset of women being offered breast-conserving surgery without onco-reconstructive techniques being used.

- Central units however, offer comprehensive breast cancer surgical managements with a comprehensive use of reconstructive options, good documented research, presentations and follow-up.

- The vast majority of women in the central units opt for immediate reconstruction.
Money may not buy better care

- Conversely, the private hospitals provide access to any women who have medical insurance, with most surgeons in the private hospitals all too eager to diagnose and treat patients in non-multidisciplinary units.
- With emergency surgery...and patients ignorant of...downfalls of emergency cancer surgery.
Primary oncology treatment

- Gold standard for all patients with locally advanced breast cancer
- Does facilitate cosmesis
- Form of biological warfare
- Different drugs for different tumours
- **STOP EMERGENCY MASTECTOMIES AND SURGICAL BIOPSIES**
PRIMARY CHEMO: RULES

• Place a marker (titanium) (magseed) in our setting
• Upfront decisions about
  1. Tumour size
  2. Multicentricity
  3. Extent of lymph node involvement
     (today this is assessed radiologically)
• Document prior to starting chemotherapy who will need radiation post surgery
• Triple negative poor responders may be offered platinum based second line upfront
Target therapies

• Amplification of the Her2/neu is associated with increased aggressiveness of breast cancers. Trastuzumab should be utilised in these patients

• Now duel therapy

• Availability of more target therapies, have resulted in better patient outcomes

• As access to target therapies can be expensive, it behoves all physicians involved in the treatment of breast cancer to be aware of trials available to their patients
• The funded patients in South Africa have access to a variety of oncology drugs including Herceptin.
• Certain medical insurances offer limited access to these drugs with hefty co-payments.
Radiation therapy
Part of local and systemic treatment. Definitely the Rising star

- **BREAST INDICATIONS**
  - Breast conservation surgery
  - Intra-operative radiation (a role)
  - Margins post mastectomy (weak indication today)
  - Any person who has a locally advanced breast cancer (tumour bigger than 5cm)

- **REGIONAL (NODAL) INDICATIONS**
  - If 1 or more positive nodes (1-3 nodes positive can debate in MDM)

- **SYSTEMIC INDICATIONS**
  - Metastatic disease control (brain)
  - (bone)
  - (spinal compression)
New

• Tumour Biology trumps; size (T;N) and age
• Less is more (“tumour at ink”)
• Personalized oncology (less chemo; specific regimes)
• Genetic profiling of tumours
• Radiation has more indications
• Prosthetic concerns (cost; lymphoma)
• ERAS
• Cryosurgery
Pathobiology. 2011 Jun; 78(2): 99

- Change from morphology only to biology
- Luminal A, B, Her 2
- New classification for triple negatives
- Genetic profiling of node negative ER, PR positive tumours
- Profiling for select node positive (21 gene RT-PCR)
- Changing Role of Pathology in breast Cancer Diagnosis
Autologous reconstruction: LD mastectomies
The next frontier in state-of-the-art revolutionized government cancer surgical care

Marking cancers with a magseed prior to starting chemo
Using magseeds to decrease the need for wires
Using magtrace/Sienna to detect the sentinel lymph node
Sometimes the questions are complicated and the answers are simple.

—Dr. Seuss
What's new in Oncology

• Targeted therapies:
  Increase options for Her 2 disease, value of primary Her 2 treatment; Pertuzumab for Early stage select disease
• Personalizing regimes
• Tumour profiling
• Ovarian protection
• Extended neo-adjuvant on chemo failure
• Bisphosphonates
• Timing of chemotherapy in metastatic breast cancer
Genetic profiling of tumors plays a greater role in determining management

- Evolved from how big, (tumour size and nodal involvement) to what does the cancer look like (pathology) to personality (genetic profiling).
- The newest kid on the block is genetic profiling, where the cancers molecular personality including mutations, protein production and levels of genetic activity guide oncologic treatment.
Nice

- Africa Renaissance
- Many reconstructive options
- Health education
- Technology aiding clinicians
State of the nation
what are you doing about it

UNLESS someone like YOU cares a whole awful lot, NOTHING is going to get better. It's NOT.
IORT Systems of kV versus MV Devices

Carl Zeiss INTRABEAM and Xoft Axxent eBx vs IntraOp Medical Mobetron
Radiation Access and availability

• A large number of state patients (most of whom require radiation due to initial advanced presentation of the disease), do not have easy access to either transport or funding
• Shortage of radiation units in the government sectors often requires patients to take the duration of radiation time as leave from work
• Compliance is variable
• Elective breast conserving surgery decisions are often “not” chosen based on radiation access

Radiation therapy discussions

• Criteria for intra-operative radiation should be assessed according to (ASTRO 2017 guidelines)
• Need for radiation due to axillary nodal disease (1 or more involved)
• Whether the unit follows the Z11 protocol and AMAROS trial outcomes
• Documentation of radiation need prior to starting primary chemotherapy
• Hypo-fractionation
Autologous reconstruction: Goldilocks

Advantages:
- Bilateral total autologous reconstruction
- No donor site morbidity
- May avoid radiation
- Radiation resistant
- Ideal in patients with large ptotic breasts
- May be augmented with regional flaps

Disadvantages:
- Limited volume dependent on initial breast size
- Contour irregularities
- Nipple congestion/ necrosis
Using less prosthetic material less long term redo's

New kid on the block is Goldilocks

Chasing the nirvana of the perfect breast reconstruction results in conflict between surgical oncology principles and aesthetically pleasing better functioning reconstructed breasts.

Goldilocks

Dr. A. Grubnik
FC Plast Surg (SA), MMed (Wits)
I am Elephant, I never forget

living for a long time with a diagnosis ...should be our goal
• Locally advanced central tumours, which have had a good response to primary chemotherapy, are not contraindications for central breast excisions and reconstruction
Humble spirit...enquiring mind
Service profession

TODAY I SHALL BEHAVE, AS IF
THIS IS THE DAY I WILL
BE REMEMBERED.

~ DR. SEUSS

“Kid, you’ll
move mountains!”

-Dr Seuss
The Cancer Care Continuum

Detection  Treatment  Survivorship

& Diagnosis

Optimal care of an individual person differs along the continuum
This is the role of the oncology navigator
To Infinity and Beyond: Life after Breast Cancer
Outcome Predictors

- Cultural Sensitivities
- Disease profile: (young age of presentation, HIV, and high incidence of triple negative breast cancers)
- Socio-economic (time off work, family dynamics)
- Need for navigation through different hospital systems
Chemo made from ...mushrooms; bark......and now we have medical marijuana

- when they were done trying to cut it out, nuke it out with radiation and chemotherapy
- Chemotherapy is brutal. The goal is pretty much to kill everything in your body without killing you.
- Chemotherapy – When you are tired of shaving your head everyday
I am Rhino, please save me

Service is critical
Multi-disciplinary units that fit all the recommended criteria are not the norm. Access to health care let alone specialized breast units differs in urban and rural communities. A few like-minded physicians who are prepared to work together, a small dynamic group of patients must create media and patient advocacy around the value of multi-disciplinary units.

Women treated with a multi-disciplinary approach feel that their care is coordinated and not fragmented.
Shades of grey, in terms of poverty, education, and late disease presentation are further darkened by inadequate medical care.
No barriers to excellent breast care

Multidisciplinary centres in Johannesburg, Cape Town, Stellenbosch, Durban
creating awareness, access and support
creating awareness, access and support
What can you do to secure the future for women’s health?

South Africa’s BIG FIVE of Women’s Health

- We are working together to achieve comprehensive women’s health
  - Access to breast, cervical and HIV screening in one clinic at Helen Joseph Hospital [with social work support for abuse]
- Model to be rolled out dependant on NGO and DoH assistance
- Help needed with:
  - Navigators and counsellors acting as umbrella for patients
  - Infrastructure and administration - database work
  - Community education of comprehensive care
A few driven clinicians across the country, who although are as unique as each colour strives 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.
A lecture is not a lecture
But rather an opportunity to crosspollinate
Questions

SO, OPEN YOUR MOUTH, LAD!
FOR EVERY VOICE COUNTS!

~ DR. SEUSS