Slide 1

The Nurse Navigators role in Early Stage Breast Cancer, and Development of Tailored Radiation Treatment Plan

Laura Ochoa, RN, ANP-BC, Ph.D.

Radiation Oncology

Washington University in St.Louis
School of Medicine

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Barnes Jewish Hospital at Washington University

Slide 3

History of Nurse Navigator

- 1970's
  - Utilization Review
    - Worked for Medicare, Medicaid or private insurance
    - Adversarial relationship
- 1980's
  - Utilization Management
    - Hospital Based
    - Facilitated flow of patients
    - Viewed by medical staff poorly
- 1990's
  - Case Management
    - Part of multidisciplinary team
    - Served as clinician and patient advocate

Slide 4

History of Nurse Navigator - 2

- Dr. Harold Freeman – Harlem Hospital
  - Coined the phrase "patient navigation"
- Goal – Underserved people
  - Address disparities in healthcare
  - Improve access
- Priority Focus
  - Breast cancer
  - Target African-American women
    - High mortality rate
- Patient navigators
  - Lay community case workers

Slide 5

History of Nurse Navigator - 3

- 2005
  - Cancer Patient Navigation Act
- Funding
  - 25 million dollars
  - Awarded over 5 years
- Patient Navigator Programs Helped
  - Improve communication
  - Decreased barriers to care
  - Provided educational support
  - Offered linguistically competent assistance

Slide 6

NCI Designated Cancer Centers
Siteman Cancer Center

- Must have Navigation program
- In 2015 – Navigation program must be functioning well

The Patient Navigator Outreach and Chronic Disease Prevention Act of 2005: A bipartisan approach to improving access to care and addressing health disparities. Health policy newsletter. Vol 22, No. 2, June 2009.

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First Cohort for Navigation – Breast Cancer

- Funded By
  - Avon Foundation
  - American Cancer Society
  - National Breast Cancer Foundation
  - Komen for the Cure
- Positions filled by
  - Nurses 75%
  - Social Workers
  - Lay persons – community outreach
- Fragmentation of Care
  - Breast imaging
  - Surgeon
  - Chemo
  - XRT

The Evolution of Beast Cancer Navigation and Survivorship Care. The Breast Journal, Vol 21, No 1. 2015. 104-110.

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Common Barriers to Care Addressed by Navigators

- Scheduling
  - Difficulty scheduling
  - Long wait times
- Financial and economic
- Differences in Language
- Cultural and ethnic diversity
- Communication
  - Among oncology team
  - With other providers
  - With family
- Transportation
- Emotional concerns

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Financial issue

- Increasing co-pay and deductible
- New systemic treatments
  - Some >$50,000 for single dose
  - 20% co-pay
- Should the cost be part of the discussion
- New radiation treatments with increasing cost
- Missed time from work
- Child care issues

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Breast Cancer Survivorship Care

- Definition: American Cancer Society: survivor from diagnosis
- Steady increase in the number of women diagnosed each year.
- Baby boomers
- More young women diagnosed
  - Living longer with the disease

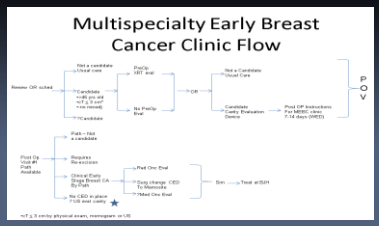
Slide 11

Survivorship Care Plans

- Two components
  - Treatment summary
  - Survivorship care plan
- Completed by
  - NP
  - Nurse Navigator
- Survivorship care plan
  - Surveillance screening to be done
    - When
    - Whom
    - Where
- Transition of care

Slide 12

Early Stage Breast Cancer



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Survival by Stage

Slide 14

Occurrence and Survival by Age

Slide 15

Radiation Techniques for Early Stage Breast Cancer

- Whole breast radiation
- Hypofractioned whole breast radiation
- Accelerated partial breast radiation
  - External Beam
  - HDR brachytherapy
    - Multi-catheter
    - Mammosite
    - SAVI
- Phase III randomized trial – Europe
  - Median follow up 10.2 years
  - No difference in local recurrence, disease free survival or OS
  - Excellent/Good cosmetic outcome PBI (81%); WB (63%)
- NSABP B-39 - pending

Slide 16

Whole Breast Radiation

- Treatment Planning
  - One week
- Treatment Delivered
  - 5.5 to 6.5 weeks
- Toxcicity
  - Acute
    - Skin reaction
    - Fatigue
    - Loss of work time
  - Late
    - Chronic skin changes
    - Pneumonitis
    - Rib fracture
    - Pericarditis

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Hypofractionated Whole Breast Radiation

- Treatment Planning
  - One week
- Treatment Delivered
  - 3 weeks and 1 day (16 fractions)
- Toxcicity
  - Acute
    - Skin reaction - mild
    - Fatigue
    - Loss of work time
  - Late
    - Chronic skin changes
    - Pneumonitis
    - Rib fracture
    - Pericarditis

Slide 18

Eligibility for Accelerated Partial Breast Radiation Therapy

- 3 Consensus statements
  - American Society of Breast Surgeons (ASBS)
  - American Brachytherapy Society (ABS)
  - American Society of Radiation Oncology
- Criteria
  - Oncologic Factors
    - Breast conserving surgery
    - <3 cm disease
    - Invasive ductal carcinoma or Ductal Carcinoma In-situ
    - Negative margins (2mm)
    - No lymphovascular space invasion
    - No lymph node involvement
    - No neoadjuvant chemo therapy

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Consensus Guidelines for APBI

American Society Breast Surgeons
- Age >45 years for invasive cancer and Age >50 DCIS
- Invasive carcinoma or ductal carcinoma in situ
- Total tumor size (IDC and DCIS) ≤ 3cm
- Negative microscopic surgical margins
- Sentinel lymph node negative

- American Brachytherapy Society
  - Age > 50 years
  - Tumor size ≤ 3cm
  - Histology, IDC, DCIS
  - Negative surgical margins
  - No lymphovascular space invasion
  - Sentinel lymph node negative

Slide 20

Consensus Guidelines for APBI - 2

- ASTRO
  - Age ≥ 60 years
  - Tumor size ≤ 2 cm
  - Margins negative by at least 2 mm
  - ER positive
  - IDC ONLY--- DCIS not allowed
  - No lymphovascular space invasion
  - Sentinel lymph node negative
  - Neoadjuvant therapy NOT allowed

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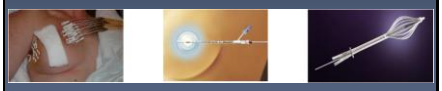
Eligibility for Accelerated Partial Breast Radiation Therapy - 2

- Criteria (cont)
  - Patient factors
    - Age >40 years
    - No active connective tissue disorder
    - Well enough to tolerate out patient procedure
  - Cavity Factors
    - Must be of appropriate size – or visible
    - Is less than 1/3 of the total volume of breast tissue
    - 2 to 3 weeks post OP is optimal up to 6 weeks possible
    - If the pt requires adjuvant chemotherapy APBI is delivered 1st
      - Chemotherapy should not be given for 4 weeks after APBI

Slide 22

Partial Breast Radiation

- External Beam
- Indwelling catheters
  - Multicatheter
  - Mamosite
  - SAVI



Slide 23

Accelerated Partial Breast Radiation – External Beam

- Treatment Planning
  - One week
- Treatment Delivered
  - 1week (10 fractions, BID over 5 days)
  - Set up uncertainty
  - Larger margin of breast tissue targeted
- Toxcicity
  - Acute
    - Skin reaction - minor
    - Fatigue - minor
    - Loss of work time (5 days)
  - Late
    - Chronic skin changes
    - Pneumonitis
    - Rib fracture

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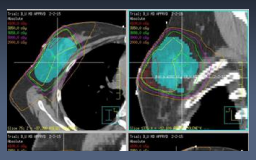
Accelerated Partial Breast – MRI Guided



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Accelerated Partial Breast Radiation –HDR

- Treatment Planning
  - One to Two days
- Treatment Delivered
  - 1week (10 fractions, BID over 5 days)
- Toxcicity
  - Acute
    - Skin reaction – minor
    - Surgical site infection (4-11%)
    - Fatigue - minor
    - Loss of work time (5 days)
  - Late
    - Chronic skin changes - fibrosis
    - Rib fracture
    - Fat necrosis (1-12%)

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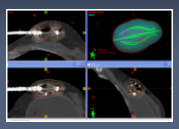
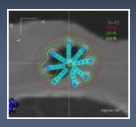
SAVI

- SAVI uses multiple catheters to target radiation where it is needed most, which:
  - Allows treatment to be completed in 5 working days
  - Minimizes radiation exposure to healthy tissue and organs





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MammoSite Breast Brachytherapy Registry Trial

- 1449 women
- Median follow up 63.1 months
- 5 year rate of IBTR was 3.8%
- Excellent/Good cosmetic result achieved 91% of pts @ 60 months

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Slide 30

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