Evidence Based Resource Stratified Guidelines for Improving Breast Cancer Outcomes

Jo Anne Zujewski, M.D.
Medical Oncologist
Specialist in Breast Cancer
Bethesda, Maryland
Tbilisi, Georgia
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Principles for Cancer Care and Control

• Many cancers are **preventable** through infection control and lifestyle modifications

• Accurate cancer **diagnosis** is critical to determining an appropriate and successful treatment plan

• Many cancers are highly **treatable** with affordable therapies that result in the addition of many years of life

• **Palliation** of pain and suffering from cancer is a basic human right

• **Reliable data** is needed to understand the magnitude of the cancer burden and the potential impact of interventions
Strategies for Improving Breast Cancer Outcomes in Low- and Middle-Income Countries

Global Task Force on Cancer Care and Control

1. Improve awareness of breast cancer as a curable disease
2. Integrate early detection programs into maternal/child health, sexual/reproductive health, HIV/AIDS programs
3. Augment cancer registries and data collection
4. Increase early detection - metastatic disease is not treated successfully in ANY country
5. Tailor therapy to individual cancer/patient characteristics
6. Develop evidence-based, economically feasible, culturally appropriate guidelines
7. Promote public advocacy for breast cancer prevention, detection, treatment, research
The greatest obstacle to understanding the global risk of breast cancer is the lack of data

- Incidence based on data from small geographic areas—often pooled and extrapolated to large regions.
- Reported rates may reflect only women easiest to reach or with highest standard of living.
- Current global figures cannot truly reflect underlying economic and cultural diversity driving increased incidence and mortality.

- **CANCER REGISTRIES**: a key component of cancer control
Trends in Breast Cancer Mortality 2008

WHO (www.who.int/whosis)
MISSION STATEMENT

The Breast Health Global Initiative (BHGI) strives to develop, implement and study evidence-based, economically feasible, and culturally appropriate guidelines for international breast health and cancer control for low and middle income countries to improve breast health outcomes.
Global Summit 2005 – Bethesda

Resource Stratification

- **Basic level:** Core resources or fundamental services necessary for any breast health care system to function.

- **Limited level:** Second-tier resources or services that produce major improvements in outcome such as survival.

- **Enhanced level:** Third-tier resources or services that are optional but important, because they increase the number and quality of therapeutic options and patient choice.

- **Maximal level:** Highest-level resources or services used in some high resource countries that have lower priority on the basis of extreme cost and/or impracticality.
# World Bank Country Groups

## World Bank Classification (Atlas Method)

<table>
<thead>
<tr>
<th>World Bank Country Groups (GNI per capita)</th>
<th>Low Income ($995 or less)</th>
<th>Lower Middle Income ($996 - $3,945)</th>
<th>Upper Middle Income ($3,946 - $12,195)</th>
<th>High Income ($12,196 or more)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average female life expectancy at birth</td>
<td>57.8 yrs</td>
<td>69.3 yrs</td>
<td>74.4 yrs</td>
<td>82.4 yrs</td>
</tr>
<tr>
<td>Average GNI per capita (2009 US dollars)</td>
<td>$403</td>
<td>$1,723</td>
<td>$6,314</td>
<td>$36,953</td>
</tr>
<tr>
<td>Total national health expenditure per capita</td>
<td>$22</td>
<td>$76</td>
<td>$458</td>
<td>$4,266</td>
</tr>
<tr>
<td>Fraction of GDP spent on health care</td>
<td>5.1%</td>
<td>4.3%</td>
<td>6.4%</td>
<td>11.2%</td>
</tr>
</tbody>
</table>

Health expenditure figures 2010 for calendar year 2007; GNI = gross national income

BHGI GUIDELINE TABLES

HEALTH CARE SYSTEMS

<table>
<thead>
<tr>
<th>Level of resources</th>
<th>Patient and Family Education</th>
<th>Human Resource Capacity Building</th>
<th>Patient Navigation</th>
<th>Cancer Care Facility</th>
<th>Breast Cancer Care</th>
<th>Breast Care Center</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic</td>
<td>Educate regarding primary prevention of cancer, early detection and self-examination. Development of culturally appropriate patient and family education services.</td>
<td>Primary care and specialty education to teach cancer screening, diagnosis and treatment. Nursing education to cancer patient management and emotional support. Pathology and cancer education to train healthcare providers.</td>
<td>Field nurse, health or tissue processor can serve to identify facility for diagnosis and treatment.</td>
<td>Health facility, Outpatient clinic facility, Pathology and cancer education to train healthcare providers.</td>
<td>Breast health management.</td>
<td>Breast health assessment, implementing existing healthcare infrastructure.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Stage I</th>
<th>Stage II</th>
<th>Locally Advanced</th>
<th>Metastatic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic</td>
<td>Breast-conserving surgery</td>
<td>Breast-conserving surgery + radiation therapy</td>
<td>Breast-conserving surgery + radiation therapy</td>
</tr>
<tr>
<td>Minimal</td>
<td>Breast-conserving surgery + radiation therapy</td>
<td>Breast-conserving surgery + radiation therapy</td>
<td>Breast-conserving surgery + radiation therapy</td>
</tr>
</tbody>
</table>

Cancer: 113 (8 suppl), 2008
## Breast Health Global Initiative: Evidence-Based, Resource-Stratified Guidelines

Cancer: 113 (8 suppl), 2008

### Public Education and Awareness

<table>
<thead>
<tr>
<th>Level</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic</td>
<td>Local education&lt;br&gt;Breast Health Awareness Value of early detection</td>
</tr>
<tr>
<td>Limited</td>
<td>District education&lt;br&gt;Clinical Breast Exam&lt;br&gt;Local Health Care Providers</td>
</tr>
<tr>
<td>Enhanced</td>
<td>Regional Education&lt;br&gt;Women’s Health Programs</td>
</tr>
<tr>
<td>Maximal</td>
<td>National Health Program Media</td>
</tr>
</tbody>
</table>
**Breast Health Global Initiative: Evidence-Based, Resource-Stratified Guidelines**

*Cancer: 113 (8 suppl), 2008*

**Breast Cancer Detection**

<table>
<thead>
<tr>
<th>Level</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic</td>
<td>Clinical Breast Exam</td>
</tr>
<tr>
<td>Limited</td>
<td>Diagnostic ultrasound/mammogram</td>
</tr>
<tr>
<td></td>
<td>Mammography of target group</td>
</tr>
<tr>
<td>Enhanced</td>
<td>Mammographic screening age 50-69 every 2 years</td>
</tr>
<tr>
<td>Maximal</td>
<td>Annual Mammography 40 and older</td>
</tr>
<tr>
<td></td>
<td>Other imaging for high risk groups</td>
</tr>
</tbody>
</table>
5th GLOBAL SUMMIT
Guidelines for International Breast Health and Cancer Control – Supportive Care and Quality of Life

Day 1 - early stage
Day 2 - late stage
Day 3 - palliative care/end of life

Resource stratified guidelines as outcomes:
- Survivorship/Follow-up
- Supportive Care/QOL
- Palliative Care
## Health Professional Education

<table>
<thead>
<tr>
<th>Level</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic</td>
<td>Recurrence, second primary cancer, long-term complications, women’s health, psychosocial, lifestyle modifications</td>
</tr>
<tr>
<td>Limited</td>
<td>Psychosocial risk assessment, Psychosocial complications, Sexual health</td>
</tr>
<tr>
<td>Enhanced</td>
<td>Psychosocial screening methods</td>
</tr>
<tr>
<td>Maximal</td>
<td></td>
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</tbody>
</table>
## Patient and Family Education

<table>
<thead>
<tr>
<th>Level</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic</td>
<td>Recurrence or new cancers, long-term complications, use of Complementary and Alternative Medicine, women’s health, psychosocial, lifestyle modifications</td>
</tr>
<tr>
<td>Limited</td>
<td>Follow-up schedules Adherence to endocrine therapy Sexual health</td>
</tr>
<tr>
<td>Enhanced</td>
<td></td>
</tr>
<tr>
<td>Maximal</td>
<td></td>
</tr>
</tbody>
</table>
# Community Awareness

<table>
<thead>
<tr>
<th>Level</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic</td>
<td>Community awareness of survivorship issues</td>
</tr>
<tr>
<td>Limited</td>
<td></td>
</tr>
<tr>
<td>Enhanced</td>
<td></td>
</tr>
<tr>
<td>Maximal</td>
<td></td>
</tr>
<tr>
<td>Level</td>
<td>Method</td>
</tr>
<tr>
<td>-------------</td>
<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Basic</td>
<td>Patient and family education, Psychosocial considerations, Peer support by trained Breast Cancer survivors</td>
</tr>
<tr>
<td>Limited</td>
<td>Psychosocial assessments including depression, Emotional and social support by health professionals</td>
</tr>
<tr>
<td>Enhanced</td>
<td>Screening and referral to mental health professional, Psychosocial counseling, psychopharmacology, social service counseling</td>
</tr>
<tr>
<td>Maximal</td>
<td>Psychiatrist, psychologist, or social worker coordinated care</td>
</tr>
</tbody>
</table>
Survivorship issues

• **Treatment related complications**
  - Lymphedema, cellulitis, fatigue, insomnia, pain, heart damage, nerve damage (numbness and tingling)

• **Women’s Health**
  - Early menopause, fertility, sexual health, body image, bone health, reconstruction

• **Lifestyle modifications**
  - Weight management, physical activity, use of alcohol

• **Monitoring**
  - Breast cancer, second cancer, long-term tx complications, medication adherence, genetic testing and counseling

• **Documentation**
  - Patient care record, treatment summary, survivorship care plan
Summary: European School of Oncology (ESO) Advanced Breast Cancer Guidelines

- Apply principles of modern oncology
  - Multidisciplinary treatment
  - Specialized breast cancer care
  - Evidence-based medicine
  - Individualized (tailored) therapy
- Include psychosocial, supportive care & symptom-related interventions
- Keep in mind goals of advanced breast cancer setting
  - Incurable but treatable
- Include patient preferences and active participation
  - Patients, families and caregivers should be invited to participate in decision-making

ABC2 Bridging the Gap...
Advanced Breast Cancer Second International Consensus Conference • 7-9 NOVEMBER 2013 • Lisbon
National Comprehensive Cancer Network
Trends in Russia

Q3. I use NCCN Guidelines: (n = 20)

- 50% Approximately 5-10 times per month
- 25% Approximately 2-4 times per month
- 15% More than 10 times per month
- 5% Approximately once per month
- 5% Less than once per month
- 0% Do not use - products/technologies differ from those locally available
- 0% Do not use - they are not available in my primary language
Challenges, Benefits & Lessons

- Breast cancer is a significant issue for countries at all economic levels, not just wealthy countries.
- Resource-adapted guidelines provide a framework for cancer program implementation in low-resource settings.
- Implementation research requires practical metrics by through relevant improvements are reliably assessed.
- Sociological considerations are a necessary aspect of breast program implementation to insure public participation.
Strategies for the Future Require

◆ Political will

◆ Reliable data and research

◆ Public and medical community awareness and involvement

◆ Partnerships between community, advocates, governments, nongovernmental organizations and biotechnology
Thank you!
Breast Health Global Initiative (BHGI)
Early Detection Strategies in Low- and Middle-Income Countries
Yip C et al, Cancer Suppl 113, 2008

- **Basic level**
  - Clinic visits for breast problems (history and exam)
  - Train health care providers in clinical breast exam (CBE)

- **Limited level**
  - Targeted educational outreach encouraging women to seek attention for breast problems
    - Link to general health/women’s health programs
  - Screening clinical breast exams for higher risk
  - Diagnostic imaging (mammogram and ultrasound) for breast problems
  - Screening mammogram for select targeted group
Breast Health Global Initiative (BHGI)
Early Detection Strategies in Low- and Middle-Income Countries
Yip C et al, Cancer Suppl 113, 2008

- **Enhanced level**
  - Regional awareness programs on breast health
  - Screening
    - Mammography where resources sufficient
    - Every 2 years ages 50-69?
    - Every 12-18 months ages 40-49
  - Image-guided biopsy

- **Maximal level**
  - National awareness campaigns
  - Annual screening mammography in women ≥ 40
  - Consider other imaging technology in women at high risk - Breast MRI
Breast cancer rates will rise--approaches require

- Guidelines that are evidence-based, economically feasible, and culturally appropriate (BGHI)
- Early detection--metastatic disease is not treated successfully in ANY country
- Improved cancer registries and data collection
- Public advocacy for breast cancer prevention, detection, treatment and research!