Oncology Nursing Society (ONS) Develops Evidence-Based Breast Cancer Chemotherapy and Survivorship Quality Measures

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Project Background

- Evidence-based practice (EBP) is a focus across all ONS activities
- Care practices on both the organization and clinician level must be guided by the highest-level of evidence available
- Evidence syntheses, clinical practice guidelines, comparative effectiveness research tell us what to do, but...

Clancy, 2009
How well do clinicians implement the evidence where it matters?
How well does everyone implement the evidence where it matters?

- Ideally, a good quality measure is derived from a strong evidence base
- Focuses on a high-volume, high-impact process or outcome
- Is one that lends itself to a clear method of measurement
Project Overview

The Oncology Nursing Society Foundation (ONSF) received a 3 year grant from the National Philanthropic Trust's Breast Cancer Fund

- Develop and test quality measures
- Facilitate incorporation of measures into existing quality measurement databases
- Provide education on quality and quality measurement
Measure Sets

- Developed and tested with The Joint Commission’s Dept. of Quality Measurement
  - Based on ONS PEP resources and other sources

- **Breast Cancer Care (BCC)**
  - Focus on the care of patients receiving chemotherapy for breast cancer

- **Survivorship Quality Measures (BCS)**
  - Focus on the first year post-completion of treatment for early-stage breast cancer

- Visit [www.ons.org/Research/Quality](http://www.ons.org/Research/Quality) for more info
Breast Cancer Care (BCC)

- Pre-treatment assessment
  - Fatigue, Distress and Sleep-Wake Disturbance

- Continuing assessment
  - Same problems, assessed every cycle

- Intervention for clinically significant level of Distress or Sleep-Wake Disturbance

- Exercise recommendation made prior to chemo start

- Assessment of antiemetic regimen control
  - Before cycle 2 moderate to highly emetogenic chemo

- Hand washing and fever level to contact practice

- CSF prescribed for admin. 24-48h after myelosuppressive chemo
Breast Cancer Survivorship (BCS)

- Continued assessment of disease and treatment-related symptoms
- Interventions for clinically significant issues with assessed symptoms
- Education regarding:
  - Diet and exercise
  - S/S to report to provider
  - Resources available in the local community
  - Lymphedema risk reduction practices
- Individualized goal setting and attainment, with evidence of patient and family involvement (OUTCOME)
- Individualized follow up care recommendations for:
  - Bone density, breast imaging, LVEF monitoring, and pelvic exams where indicated
- Improvement of fatigue and distress scores over end-of-treatment baseline at 1 year follow up (OUTCOME)
Purpose of Pilot Testing

- Refine measure specification language to stand alone “on the shelf”
- Determine Reliability
  - Measure Level
  - Individual Data Elements
- Determine Burden Relative to Measure Set Implementation
• Approximately 18 month process
• From ONSF/TJC Perspective
  - External IRB
  - Non-Human Subjects Research
• From Local Site Perspective
  - Quality Improvement
Test Site Selection

- Wide geographic spread
- Mirror the universe of health care organizations – “real world”
- Based on demographic characteristics
  - Practice size
  - Region (state)
  - Type of practice (organization, ownership)
  - Setting of Care (teaching/non-teaching, rural/suburban/urban)
Alpha Testing

- Establishes “basic” content validity
- Small focus group meetings at 4 pilot sites
  - Review language for each measure and associated data elements
    - What do you think this is really asking you to find?
    - Where would you find it in your records?
    - How feasible would that be to do for multiple cases?
- Rank measures within set
Reliability Testing

- Re-abstraction site visits at 12 pilot sites
- Project staff abstract data on 20 cases
  - Adjudication software compares originally submitted data to staff collection
  - Mismatches immediately flagged
  - Staff interviews pilot site data collectors to uncover cause; frequently due to unclear specification language
- Data analysis provides adjusted scoring
<table>
<thead>
<tr>
<th>UBCI</th>
<th>First Chemotherapy Date</th>
<th>CPT® Code</th>
<th>ICD-9-CM Diagnosis Code</th>
<th>Adjudication Report</th>
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- General and other patient-level data elements
  - Age 18 or Greater: Y
  - Sex: F
  - Assessment for Distress: 1
  - Assessment for Fatigue: 2
  - Assessment for Sleep-Wake Disturbance: 2
  - Re-Assessment for Distress: 
  - Distress: 4
  - Intervention for Distress: Y
  - Re-Assessment for Sleep-Wake Disturbance
  - Sleep-Wake Disturbance
  - Intervention for Sleep-Wake Disturbance
  - Re-Assessment for Fatigue
  - Exercise Program
  - Reason for Not Recommending Exercise
  - Emetogenic Agents
  - Assessment for Chemotherapy Induced Nausea and Vomiting
  - Myelosuppressive Chemotherapy
  - Instructions on Hand Washing
  - Instructions to Contact Provider
  - Neutropenia Risk Cycle
  - Chemotherapy Cycle Number
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<th>Adjudication</th>
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<td>ICD-9-CM Diagnosis Code</td>
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<tr>
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<td><strong>DONE</strong></td>
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<td>Sex</td>
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<td>Assessment for Fatigue</td>
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<td>Re-Assessment for Sleep-Wake Disturbance</td>
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Reliability Findings

Good agreement on:
- Demographics
- Lack of exercise recommendations

Most mismatches related to:
- Definition of distress
- Lack of documentation of symptom intensity
- Identification of myelosuppressive regimens
- Need to evaluate all cycles in the continuing assessment measures (BCC-02)
Selected BCC testing results

- Exercise not often recommended
- Sleep-Wake disturbance not commonly assessed
- Symptom assessment by nursing varies
  - Charting by exception
  - SOAP note format
  - Symptom intensity not commonly documented
# Pilot Data Summary

<table>
<thead>
<tr>
<th>Measure ID</th>
<th>Measure Name</th>
<th>Denominator for Pilot Study</th>
<th>Rate for Pilot Study</th>
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<tr>
<td>BCC-01a</td>
<td>Pre-treatment Assessment – Overall Rate</td>
<td>1076</td>
<td>33.27%</td>
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<td>BCC-01b</td>
<td>Pre-treatment Assessment – Distress</td>
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<td>75.93%</td>
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<td>BCC-01c</td>
<td>Pre-treatment Assessment – Fatigue</td>
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<td>64.50%</td>
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<td>BCC-01d</td>
<td>Pre-treatment Assessment – Sleep-Wake Disturbance</td>
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<td>BCC-02a</td>
<td>Continuing Assessment – Overall Rate</td>
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<td>55.55%</td>
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<td>BCC-02c</td>
<td>Continuing Assessment – Fatigue</td>
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<td>BCC-02d</td>
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<td>Intervention for Distress</td>
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<td>Assessment for Chemo-Induced Nausea and Vomiting</td>
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<td>Education on Neutropenia Precautions</td>
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<td>BCC-08</td>
<td>Colony Stimulation Factors (CSF) Prescribed</td>
<td>4276</td>
<td>76.26%</td>
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Pilot Data Summary
Pilot Site Feedback

- Overall, measure set is meaningful
- Clarification of what distress includes, and how it is measured in practice needed
- Clarification of which regimens are considered myelosuppressive
- More specific guidelines for exercise recommendations
- More examples in Notes for Abstraction
Oncology Quality Collaborative (OQC)

- Implementation work group
- Community of Practice model
- First session of OQC limited to interested BCC pilot site participants
  - 15 sites opted in
- Focus on evidence-based practice changes needed to increase QM scoring
  - Symptom Assessment
  - Exercise Recommendations
Expansion

- Breast Cancer original focus in deference to funder
  - National Philanthropic Trust’s Breast Cancer Fund
- Many measures easily applied to other disease states
- Opportunities to develop many additional sets based on existing strong evidence
Summary

- High-level evidence supports creation of meaningful quality measures
  - How consistently are we implementing our best knowledge?
- Nationally tested measures based on PEP resources allow benchmarking of nurse-sensitive interventions across diverse sites
- QM are one important link in a chain of evidence translation and implementation
- Nurses are well-positioned to drive “Patient-centeredness” and high-quality cancer care!
Partial List of Pilot Sites

- Central Vermont Medical Center; Mountainview Medical, Berlin, VT
- CR Wood Cancer Center, Glens Falls, NY
- The Cancer Institute of New Jersey, New Brunswick, NJ
- Edwards Cancer Centers, Naperville, IL
- Fairfax Northern Virginia Hematology Oncology, Fairfax, VA
- Froedtert Hospital and the Medical College of WI, Milwaukee, WI
- Group Health, Seattle, WA
- Lankenau Hospital, Wynnewood, PA
- Magee Womens Hospital of University of Pittsburgh Cancer Centers, Pittsburgh, PA
- Norton Cancer Institute, Louisville, KY
- Our Lady of Bellefonte Hospital (The Women's Center), Ashland, KY
- Saint Joseph’s Hospital, Nashua, NH
- Seidman Cancer Center, Cleveland, OH
- University Of Miami, Miami, FL
- Southwestern Vermont Regional Cancer Center, Bennington, VT
Co-Authors/Team Members

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Questions?
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