Evaluating Treatment Plans and Summary Templates in the ASCO Breast Cancer Registry Pilot*

Ann H. Partridge, MD, MPH
Dana-Farber Cancer Institute Brigham and Women’s Hospital, Harvard Medical School

March 1, 2011

*Funded by Susan G. Komen for the Cure®
Program Goals

- Support practice-based quality improvement
- Support real-time quality monitoring for breast cancer care
- Evaluate feasibility of registry participation in the ambulatory oncology care setting
Secondary Aim

Evaluate ASCO treatment plan/summary templates as a tool for improving communication and care coordination

- Practice/provider perspectives on utility
- Patient perspectives on utility and satisfaction
Using a web-based application, practices:

- Enter data about their patients with breast cancer into the registry
- Simultaneously generate patient-specific treatment plans and summaries to improve patient care and communication
- Practices given reports based on measures of quality from registry data
Evaluation Study
Practices and Patients

- Practice staff participants responded to practice survey electronically at mid point and at conclusion of registry pilot

- Each patient participant was surveyed by trained telephone interviewer 1-2X (depending on their care) during registry pilot period

Chemotherapy Planned

Patient informed of research study and HIPAA authorization & informed consent obtained.

Phone survey 2-4 weeks later

Chemo completed (~12 weeks)

Summary report generated and discuss with patient.

Phone survey 2-4 weeks later

Treatment plan and summary report generated and discussed with patient.

Patient informed of research study and HIPAA authorization/informed consent obtained.
Development of Pilot

- Fall 2008 – Fall 2009
  - Steering Committee and staff developed overall pilot study, registry, surveys
  - Recruited and trained 20 diverse practices
Implementation of Pilot

- Two phases of implementation
  - Registry pilot *(started Fall 2009)*
    - Practices begin entering patients into registry
    - Deliver individual Treatment Plan and Summary to patients

Over 2200 individual patients entered as of 11/1/2010 (~50/week)
The QOPI and BCR studies will be undergoing routine system maintenance on Saturday, February 26th beginning at 8am EST ending at approximately 4pm EST. During this time the program will be intermittently unavailable. We apologize for any inconvenience this may cause.
<table>
<thead>
<tr>
<th>Patient ID</th>
<th>Patient Name</th>
<th>Phi</th>
<th>Treatment Plan</th>
<th>Treatment Summary</th>
<th>Medical Oncologist</th>
<th>Generate Treatment Plan</th>
<th>Generate Treatment Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>1766-00001</td>
<td>Smith, Susan</td>
<td>09/10/2009</td>
<td>09/18/2009</td>
<td>11/06/2009</td>
<td>Hanson, Sally</td>
<td>Generate Treatment Plan</td>
<td>Generate Treatment Summary</td>
</tr>
<tr>
<td>1766-00004</td>
<td>Smyth, Jane</td>
<td>10/14/2009</td>
<td>10/25/2009</td>
<td>03/12/2010</td>
<td>White, Betty</td>
<td>Generate Treatment Plan</td>
<td>Generate Treatment Summary</td>
</tr>
<tr>
<td>1766-00005</td>
<td>Smith, Mary</td>
<td>11/05/2009</td>
<td>07/06/2010</td>
<td>Enter Form</td>
<td>Cullen, Edward</td>
<td>Generate Treatment Plan</td>
<td>Generate Treatment Summary</td>
</tr>
<tr>
<td>1766-00010</td>
<td>Jones, Anne</td>
<td>11/06/2009</td>
<td>11/06/2009</td>
<td>Enter Form</td>
<td>Hanson, Sally</td>
<td>Generate Treatment Plan</td>
<td>Generate Treatment Summary</td>
</tr>
<tr>
<td>1766-00012</td>
<td>Jones, Molly</td>
<td>11/13/2009</td>
<td>11/13/2009</td>
<td>Enter Form</td>
<td>Johnson, Frank</td>
<td>Generate Treatment Plan</td>
<td>Generate Treatment</td>
</tr>
</tbody>
</table>
## General Information

**Patient date of birth**
- [ ] January
- [ ] February
- [ ] March
- [ ] April
- [ ] May
- [ ] June
- [ ] July
- [ ] August
- [ ] September
- [ ] October
- [ ] November
- [ ] December

**Patient zip code at diagnosis**

**Medical oncologist name**

**Patient gender**
- [ ] Female
- [ ] Male

**Ethnicity**
- [ ] Hispanic or Latino
- [ ] Not Hispanic or Latino
- [ ] Not reported
- [ ] Unknown

**Race**
- [ ] American Indian or Alaska Native
- [ ] Asian
- [ ] White
- [ ] Black or African American
- [ ] Native Hawaiian or other Pacific Islander
- [ ] Other
- [ ] Not Reported
- [ ] Unknown

**Primary payer at diagnosis**
- [ ] Not insured/self pay
- [ ] Medicare
- [ ] Medicare with supplemental insurance
- [ ] Medicaid
- [ ] Private insurance
- [ ] VA/Military
- [ ] Other

**Errors and Warnings**
- **Patient date of birth:** Please enter a value for Patient date of birth.
- **Patient zip code at diagnosis:** Please enter a value for Patient zip code at diagnosis.
- **Medical oncologist name:** Please enter a value for Medical oncologist name.
- **Patient gender:** Please enter a value for Patient gender.
- **Ethnicity:** Please enter a value for Ethnicity.
- **Race:** Please enter a value for Race.
- **Primary payer at diagnosis:** Please enter a value for Primary payer at diagnosis.
- **ICD-9-CM code:** Please enter a value for ICD-9-CM code.
- **Date of diagnosis:**
### Neoadjuvant Chemotherapy Planned

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient height (cm.)</td>
<td>Not documented</td>
</tr>
<tr>
<td>Date of most recent measurement</td>
<td>Unknown</td>
</tr>
<tr>
<td>Patient pre-treatment weight (kg.)</td>
<td>Not documented</td>
</tr>
<tr>
<td>Date of most recent measurement</td>
<td>Unknown</td>
</tr>
<tr>
<td>Patient pre-treatment BSA</td>
<td>Not documented</td>
</tr>
<tr>
<td>Date of most recent calculation</td>
<td>Unknown</td>
</tr>
</tbody>
</table>

#### Neoadjuvant chemotherapy regimen planned

- **TAC Chemotherapy** -- Docetaxel 75 mg/m² IV day 1; Doxorubicin 50 mg/m² IV day 1; Cyclophosphamide 500 mg/m² IV day 1; Cycled every 21 days for 6 cycles
- **Dose-dense AC followed by paclitaxel chemotherapy** -- Doxorubicin 60 mg/m² IV day 1; Cyclophosphamide 600 mg/m² IV day 1; Cycled every 14 days for 4 cycles. Followed by Paclitaxel 175 mg/m² by 3 h IV infusion day 1; Cycled every 14 days for 4 cycles.
- **AC followed by paclitaxel chemotherapy** -- Doxorubicin 60 mg/m² IV day 1; Cyclophosphamide 600 mg/m² IV day 1; Cycled every 21 days for 4 cycles. Followed by Paclitaxel 80 mg/m² by 1 h IV infusion weekly for 12 weeks (Or Paclitaxel 175 mg/m² by 3 h IV infusion every 21 days for 4 cycles)
- **TC chemotherapy** -- Docetaxel 75 mg/m² IV day 1; Cyclophosphamide 600 mg/m² IV day 1; Cycled every 21 days for 4 cycles
- **AC chemotherapy** -- Doxorubicin 60 mg/m² IV day 1; Cyclophosphamide 600 mg/m² IV day 1; Cycled every 21 days for 4 cycles
- **CMF Chemotherapy** -- Cyclophosphamide 100 mg/m² PO days 1-14; Methotrexate 40 mg/m² IV days 1 and 8; 5-Fluorouracil 600 mg/m² IV on days 1 and 8; Cycled every 28 days for 6 cycles
Breast Cancer Treatment Plan

The Breast Cancer Treatment Plan provides a brief record of major aspects of breast cancer adjuvant treatment. This is not a complete patient history or comprehensive record of intended therapies.

<table>
<thead>
<tr>
<th>Treatment plan report date: 02/25/2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient name: Number five Patient</td>
</tr>
<tr>
<td>Patient ID: 00027</td>
</tr>
<tr>
<td>Patient phone: 123-456-7890</td>
</tr>
<tr>
<td>Patient date of birth: 01/01/1951</td>
</tr>
<tr>
<td>Medical oncologist name: Ginger Norris</td>
</tr>
</tbody>
</table>

**BACKGROUND INFORMATION**

- Hysterectomy status: No hysterectomy
- Menstrual status: Last menstrual period more than 1 year before diagnosis date
- Age of menopause: 52

**BREAST CANCER DIAGNOSIS INFORMATION**

- ICD-9-CM code: 174.3
- Date of diagnosis: 01/12/2011
- Age at diagnosis: 80
- Breast cancer site: Right
- Breast cancer surgical status: Local excision
- Lymph node evaluation: Complete axillary dissection
- Surgical resection results: Tumor resected, clear margins
- Number lymph nodes removed: 14
- Number lymph nodes positive: 3
- Pathologic T-stage: T1a
- Pathologic N-stage: N1
- AJCC stage at diagnosis: 1
- Her2Neu status: HER2 negative
- ER status: Uninterpretable
- Additional ER testing: Yes
- PR status: PR negative

**ECOG performance status:** 1

**Comorbid conditions:** Dementia, Diabetes

**Chemotherapy**

- Chemotherapy planned: Adjuvant chemotherapy
- Pre-treatment BSA: [value]
- Planned chemotherapy start date: 02/12/2011
- Chemotherapy regimen planned: CMF Chemotherapy – Cyclophosphamide 100 mg/m2 PO days 1-14, Methylprednisolone 600 mg/m2 IV on days 1 and 8, Fluctamycin 40 mg/m2 IV days 1 and 8. Cycled every 28 days for 6 cycles
- Possible side effects of this regimen:
  - Hair loss
  - Nausea/Vomiting
  - Neuropathy
  - Low blood count
  - Fatigue
  - Menopause symptoms
  - Other:

**Trastuzumab**

- Trastuzumab planned: No

**Hormonal Therapy**

- Hormonal therapy planned: No
- Planned start date: [value]
- Hormonal therapy type: [value]

**Radiation Therapy**

- Radiation therapy: [value]
- Radiation complete: [value]
- Radiation start date: 01/25/2011
- Radiation end date: 01/30/2011

**ONCOLOGY TEAM MEMBER CONTACTS**

<table>
<thead>
<tr>
<th>Provider Type</th>
<th>First Name</th>
<th>Last Name</th>
<th>Contact Info</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical oncologist</td>
<td>George</td>
<td>Orwell</td>
<td>(123) 654-0987</td>
</tr>
</tbody>
</table>

**COMMENTS**

Discussed Mrs. Patient's concerns about the implication for her three daughters
Evaluation of Pilot

• Qualitative evaluation of pilot throughout

• Formal evaluation of pilot (Apr‘10-Dec ‘10)
  – Practice staff surveys
  – Patient surveys
Conclusion of Pilot: Dec 2010

• Critically evaluate pilot based on:
  – Patient and practice surveys
  – Practice interviews and qualitative experience (recorded by staff throughout pilot)
Conclusion of Pilot

• 2 Abstracts submitted to ASCO 2011
  – Feasibility and utility of Registry to practices
  – Utility, satisfaction and burden of Treatment Plan and Summary administration for patients and practices
Practice Evaluation Results

• 52% of practice participants replied to an end-of-pilot survey (52 physicians, 49 staff)

• 73% were satisfied with the overall BCR and its web-based application

• 90% of those who had been involved with creating or communicating the treatment plans/summaries found them useful to improve communication between the medical oncologist and the patient
Practice Evaluation Results

• 93% had a favorable view of using BCR data for practice quality improvement

• 31% expressed concern regarding the time required to accomplish at least one aspect of the pilot

• 52% indicated the practice incurred additional costs to meet the requirements of the BCR
Patient Evaluation Results

- Of 318 consented patients, 175 (55%) responded to at least one survey; 8 completed two surveys
- 94% felt it improved communication with their doctors
- 82% felt it improved communication between their doctors
- 72% said it gave them greater peace of mind, while 2 (1%) had less peace of mind
Patient Evaluation Results

- 97% felt it was useful
- 62% had given the form to another doctor or planned to
- All patients surveyed after receiving a summary (N=63) recommended their practice continue to provide plans/summaries to patients
Moving Forward with Registry

- Dissemination and implementation more widely

- Must minimize burden

- Great opportunity point of care QI, improved care coordination and communication, and for health services research (community-based care)