The Development of the Oncology Symptom Management Clinic

Submitted by: Catherine Brady-Copertino BSN, MS, OCN
Executive Director
Anne Arundel Medical Center’s Geaton and JoAnn DeCesaris Cancer Institute
November 09, 2014

Program

The Symptom Management Clinic (SMC) in the Anne Arundel Medical Center’s (AAMC) Geaton and JoAnn DeCesaris Cancer Institute (DCI) was established in June of 2012. The SMC is an advanced oncology nurse practitioner led clinic embedded within the medical oncology practice, consisting of nine hematology oncology physicians and an oncology nurse practitioner. The SMC provides rapid access and coordination of urgent care and symptom control avoiding unnecessary emergency room visits and readmission while improving patient satisfaction. The top priorities in the U.S healthcare industry today are high quality at lower cost. Systematic nursing assessments with interventions lead to a better quality of life and patient satisfaction. Unrelieved symptoms lead to a decline in physical state, performance status and increased suffering. Treatment of these symptoms reverses those trends. A critical factor for successful implementation is telephone assessment and triage. Telephone triage has become an integral component of oncology ambulatory care, improving access to care as well as a means to control healthcare costs. The triage nurse can direct the care to the appropriate setting such as to the infusion center for fluids or transfusions, management of pain, management of fatigue, fever, and evaluation and treatment of DVT. Evidence has demonstrated that nurses are better prepared to manage symptoms because nurses are more engaged in day-to-day symptom control and have more time to devote to supportive care allowing physicians to remain more focused on disease trajectory and treatment decisions. As a result of in our first 8 months at least 40 Emergency Department (ED) visits were prevented and inpatient admissions from the ED for pain and or weakness decreased by 35%. Our early success with the SMC prompted further research in preventable admissions and readmissions and is ongoing today.

Process

AAMC’s Geaton and JoAnn DeCesaris Cancer Institute (DCI) participated in the first pilot group in 2010 to establish quality measures through our participation in the Oncology Nursing Society’s (ONS) Foundation supported Breast Cancer Care and Breast Cancer Survivorship Quality Measures Set (BCC).

The goal of the initiative was to develop the process and expertise necessary to test quality measures that could translate into high-quality, evidenced-based patient care.
The 2010 pilot included 39 different hospitals, measured 14 separate variables and demonstrated poor symptom assessment of patients with cancer. The pilot study clearly indicated that prospective oncology nursing assessment and screening for symptoms had the potential to positively impact patient outcomes. As a result of the pilot, we were able to select outcomes that were most important to impact patient satisfaction, quality care, and efficiency, while reducing waste in the healthcare system.

In 2012, ONS created the Oncology Quality Collaboration (OQC) inviting the 39 pilot sites to come together and use the evidence to design tools with a goal of improving nursing assessment further and design evidenced based interventions to achieve improved quality outcomes.

**Solution Identified**

In February 2012, results from the BCC and QCC identified the need for implementation of best practices for urgent care needs or symptom management for patients undergoing cancer treatments. A summary document was developed by both nursing and practice leader in the medical oncology practice describing current barriers to care and challenges in managing patients needing to be seen urgently.

Recommendations for the structure and process for the proposed clinic were outlined. In April 2012, the members of the Medical Oncology Executive Committee (MOEC) which includes physicians representing the medical oncology physician practice, DCI medical and executive leadership, and physician organization executives reviewed, discussed, and approved the plan for the development of the Symptom Management Clinic (SMC).

Detailed program planning began immediately after MOEC approval. An advanced practice oncology nurse practitioner currently employed by the practice along with the infusion team and physicians agreed to a standardized method of patient assessment to improve overall quality of cancer care.

**Role of Collaboration and Leadership**

Multidisciplinary cancer care is delivered in a variety of settings making it challenging for patients and administrators to track and respond to care needs. An individual cancer patient may be seen by a medical, surgical and radiation oncologist in their private offices, in one of many hospital settings and diagnostic areas, ambulatory clinics such as the emergency, infusion and radiation oncology. The need for a simple and effective tool to track performance requires the AAMC Information Systems team to work closely with the providers. Outcome measures can provide vital information that can prompt change and transform health care. Further development of our patient portal, My Chart will support patient reported outcomes which will be vital to the success of this program will require a multidisciplinary input and systems design.
Outcome First 8 months

- 41 patients seen per month average
- Top symptoms: pain, anorexia, nausea, vomiting, diarrhea, swelling, and fever
- No life threatening emergencies seen in SMC due to effective triage
- 65% seen same day
- 25% next day
- 13% two or more days

Quality Measures

<table>
<thead>
<tr>
<th>Quality Measure AAMC</th>
<th>2010</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessments for psychosocial distress (pretreatment)</td>
<td>32.50%</td>
<td>83.33%</td>
</tr>
<tr>
<td>Assessments for psychosocial distress (each cycle)</td>
<td>2.50%</td>
<td>83.33%</td>
</tr>
<tr>
<td>Assessments for fatigue (pretreatment)</td>
<td>52.50%</td>
<td>83.33%</td>
</tr>
<tr>
<td>Assessments for fatigue (each cycle)</td>
<td>100%</td>
<td>83.33%</td>
</tr>
<tr>
<td>Assessments for sleep-wake disturbances (pretreatment)</td>
<td>0.00%</td>
<td>83.33%</td>
</tr>
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<td>Assessments for sleep-wake disturbances (each cycle)</td>
<td>0.00%</td>
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Outcomes

- ED visits went from 26 per month to 17 per month a 35% reduction
- 280 patients seen and sent home
- 42 sent to infusion center fluid/transfusions
- 11 direct admits
- 4 home with hospice
Next Steps

- Expand outreach beyond a SMC to those who haven’t previously called *Medical Home concept
- Proactive calls by triage nurses for at high risk patients
- Use of My Chart as patient communication and tracking of patient reported outcomes
- Expanded hours of SMC
- Coordination with the ACO case managers
The Development of a Nursing Assessment and Symptom Management Clinic

Lynn Graze, Catherine Brady–Copertino
Barry Meisenberg
Anne Arundel Medical Center
Geaton and Joann DeCesaris Cancer Institute
Disclosures

- We do **not** intend to discuss any off-label use of a product during this activity
- We do **not** have any relevant financial relations during the past 12 months to disclose
Geaton and JoAnn DeCesaris Cancer Institute (DCI)

Anne Arundel Medical Center (AAMC)

Anne Arundell 1615-1649
### Who we are: AAMC Today – Vital Statistics

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Licensed acute care beds:</td>
<td>385</td>
</tr>
<tr>
<td>Annual inpatient admissions*:</td>
<td>31,000</td>
</tr>
<tr>
<td>New Cancer cases (ACoS CoC)</td>
<td>1823</td>
</tr>
<tr>
<td>Three Hematology Oncology practices</td>
<td>11.0 FTE</td>
</tr>
<tr>
<td>Annual ER visits:</td>
<td>95,333</td>
</tr>
<tr>
<td>Annual Outpatient visits:</td>
<td>403,503</td>
</tr>
<tr>
<td>Employees:</td>
<td>4,044</td>
</tr>
<tr>
<td>Affiliated Medical Staff:</td>
<td>1,048</td>
</tr>
</tbody>
</table>

*Note: Fiscal Year 2013*

*Includes Medical Observation patients*
Drivers Of Change

- Top priorities in U.S. healthcare today are high-quality care at lower cost.
- Systematic nursing assessments with interventions leads to better QOL and patient satisfaction.
- Unrelieved symptoms lead to a decline in physical state, performance status, and increased suffering.
- Treatment of symptoms reverses those trends.
But there are … Barriers to Systematic Nursing Assessment

- National Guidelines from ACoS, ASCO and QOPI not consistently followed
- Lack of knowledge/confidence to use evidence based recommendations
- Guidelines conflict with previous training
- Gaps/conflicting data in evidence
- Staffing
Development of Standardized Method for Patient Assessment

- Increases quality of care
- Ensures appropriate use of healthcare resources
- Fewer dose modifications
- Increase supportive care
- Increased educational exchanges for patients
- Increased clinical trials enrollment
- Increased medication adherence
Barriers to Systematic Nursing Assessment

Logistics and organization deficiencies

- Lack of reimbursement for services
- Lack of equipment and staffing
- Lack of reliable and standardized assessment tools
- Patients do not like to “bother” their physician
- Communication of symptoms during office visits is flawed compared with concurrent diaries of symptoms
Oncology Nursing Society (ONS) developed the Breast Cancer Care (BCC) and Breast Cancer Survivorship Quality (BCS) Measures Set.

Retrospective chart review to measure assessments in 14 QOL and symptom domains.
The Breast Cancer Care Pilot Project 2010

- 39 individual participating sites
- 14 separate variables (domains)

Outcomes
- Demonstrated poor symptom assessment of patients with cancer
- Evidence improved process of assessment & intervention
## Quality Measures

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Patient Satisfaction

Percentage of Patients Scoring in Top Box on Satisfaction

Jan-Mar 10, Jul-Sep 10, Jan-Mar 11, Jul-Sep 11, Jan-Mar 12, Jul-Sep 12, Jan-Mar 13, Jul-Sep 13

- Percentage
- Linear (Percentage)
The Development of the Nursing Assessment and Symptom Management Clinic
Uncontrolled symptoms lead to ED visits & admissions
Lack of same day appointments meant delays in evaluation and reliance on ED
Return calls to patients late in the day after clinic hours
The Symptom Management Clinic Model

- Advanced practice oncology nurse lead consensus of appropriateness criteria
- Triage developed criteria, protocols, hours, process for scheduling & patient education
- Triage line answered by Oncology Nurses
- Embedded within the medical oncology practice
- Triage line extended hours
- No additional clinic hours
41 patients seen per month average

Top symptoms pain, anorexia, nausea, vomiting, diarrhea, swelling, and fever

No life threatening emergencies seen in SMC due to effective triage

65% seen same day

25% next day

13% two or more days
Outcomes

- ED visits went from 26 per month to 17 per month a 35% reduction
- 280 patients seen and sent home
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Many descriptions of similar clinics:
- Often at academic centers
- Single tumor types
- Weekly, not every day (patients referred by their providers), not by triage nurses
- Not integrated
- Despite many descriptions, a stunning lack of data on outcomes
Symptom Management Clinics in Perspective

- Do SMCs pay for themselves?
- Depends on definition of pay
- Have the ability to greatly reduce costs which may = money saved for medical center
- The Maryland example
Next Steps

- Expand outreach beyond a SMC to those who haven’t previously called *Medical Home concept
- Proactive calls by triage nurses for at high risk patients
- Use of My Chart as patient communication and tracking of patient reported outcomes
- Expanded hours of SMC
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How many oncology admissions are preventable?

19% according to Gabriel A. Brooks et al. *J Clin Oncol* 32:496–503, 2014
Introduction and Objective

- Raw 30 day Readmission rate for oncology patients at AAMC is 32.7%
  - Includes cyclic chemotherapy
- Financial penalties for readmission instituted but few studies on the preventability of these readmissions.
- Objective
  - To review EMR (Electronic Medical Record) of consecutive readmissions to determine potential for preventability.
  - To determine resources or practice changes needed to prevent readmissions
Methods

- Consecutive readmissions identified in Crimson.
- Retrospective and independent review of EMR of each re-admission by two experienced oncology practitioners.
- Independent assessment of preventability based upon pre-existing criteria.
- Third individual used as tie break where needed
  - Not yet performed

Van Walraven et al. CMAJ 183(7) E391–E402 2011
Results-Demographics

• 113 readmissions between 3/1/2013 and 4/30/2014 from 69 unique patients (range 1-4 readmissions)
• 41 readmissions excluded (chemotherapy only)
• M:F 33:36, median age (range) 65 (21-88)
What’s Preventable?

- Side effects of overly aggressive treatment based upon clinical situation
- Patient at end of life but not in hospice physician or patient/family issue
- Inpatient management when outpatient management could have been used e.g. low risk febrile Neutropenia
- Patients with high symptom burden that could have been dealt with more timely outreach to patient
## Results - Preventability

<table>
<thead>
<tr>
<th>Reviewer</th>
<th>Preventable</th>
<th>Not Preventable</th>
<th>Unclear</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reviewer 1</td>
<td>33 (46%)</td>
<td>39 (54%)</td>
<td>0</td>
</tr>
<tr>
<td>Reviewer 2</td>
<td>26 (36%)</td>
<td>44 (61%)</td>
<td>2 (6%)</td>
</tr>
</tbody>
</table>
Both reviewers concurred that $18/72$ (25%) were preventable and $29/72$ (40%) were not preventable.

The third reviewer has yet to weigh in on the discrepant $25$ (35%).
Sources of Preventability

- Progressive symptoms not communicated to clinic by pt and lack of outreach to high risk pts-10
- Dying patients with progressive symptoms not in hospice-10
- Foreseeable medical issue not addressed-6
- Use of hospital when outpt setting could have been used, e.g. low risk febrile neutropenia-5
- Complication of inappropriately aggressive Rx-4
- Missed Dx in radiology-2
- Scheduling limitation in outpt areas-2
Causes of non-preventability

- Overwhelming burden of illness in newly dx’d or early stage pts (not suitable for hospice) - 16
- Progressive burden of illness/symptoms despite close medical mngmt at home - 17
- Expected complication of *appropriate* therapy - 6
Conclusions

- A sizable minority of non-chemotherapy admissions are preventable: enhanced outreach and more realistic expectations.
- Pilot “medical home” data suggested a 50% reduction in admissions is achievable.
- Reluctance to enter hospice accounts for large percentages.
- Chemotherapy admissions could be reduced with better operational plan and logistic support.
- We have much more work to do.