Capturing Quality Metrics Through the Use of Nursing Documentation in an Outpatient Chemotherapy Infusion Center

Tracy Coyne, MSN, RN
Leah Atwell, MSN, RN, OCN
Vanderbilt-Ingram Cancer Center
Vanderbilt-Ingram Cancer Center
Cancer Infusion Room

• 1 of 5 VICC Outpatient Infusion Rooms

• 14.55 Nursing FTEs

• Expanded Hours (7am to 11pm with occasional weekend and holiday coverage)

• Total Visits: 19,449 (average 1621 patients/month)

• 37,714 chemotherapy infusions FY 2011-12
Cancer Infusion Room Quality Metrics

- NDNQI RN Survey
- Patient Satisfaction

- Safety
  - Hand Hygiene
  - Environment of Care

- Hypersensitivity Reactions
  (Manual Abstraction/Voluntary Reporting)

- Medication Administration

Satisfaction
Challenges to Manual Abstractions/Voluntary Reporting

Potential for Inaccurate Numbers

Unable to Measure Practice Changes

Inability to Measure Nursing Interventions
Implementation of Bar Coded Medication Administration System

Expanded Nursing Documentation to Capture Events

**WEEKLY REPORT:**

- Collects all infusions events not charted as completed.
- Includes medication administration including pre-medications and interventions.
- Captures cycle of event as well patient outcome.

(Free text) RN describes event
Results

ADVERSE EVENTS RELATED TO CHEMOTHERAPY ADMINISTRATION

<table>
<thead>
<tr>
<th>Category</th>
<th>10/10-9/11</th>
<th>10/11-10/12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>69</td>
<td>185</td>
</tr>
<tr>
<td>Cessation of Infusion</td>
<td>15</td>
<td>34</td>
</tr>
<tr>
<td>Transfer of Care</td>
<td>4</td>
<td>20</td>
</tr>
</tbody>
</table>

Weekly Report Initiated in 10/11
Hypersensitivity Reactions Breakout

Agents Associated with Reactions Identified in Weekly Report

- Paclitaxel: 31%
- Rituxan: 29%
- Cetuximab: 6%
- Oxaliplatin: 5%
- Carboplatin: 3%
- Taxol: 3%
- Sipuleucel: 5%

Agents Associated with Reactions Resulting in Cessation of Infusions

- Paclitaxel: 31%
- Cetuximab: 25%
- Rituxan: 3%
- Sipuleucel: 4%
- Oxaliplatin: 7%
- Carboplatin: 7%
- Temsirolimus: 10%
- Ofatumumab: 7%
- Infliximab: 3%
- Taxol: 3%
Nursing Impact

Timing of Pre-Medication

Cycle

Time to Reaction
Conclusions

• Nursing documentation can capture key metrics.
• Source document can reduce need to use other documentation methods.
• Nursing documentation can be used to measures outcomes that lead to practice changes.
• Practice changes can be evaluated for effectiveness.
Next Steps

Expansion weekly reporting to include:

• Level of reaction.
  – Level 1
  – Level 2
  – Level 3
  – Level 4

• IV complications with scoring tool.

• Pain assessments and interventions