Development Of A Quality Metrics Dashboard To Evaluate Ambulatory Care Pharmacy Services

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Assessment Questions
- True/False – The Affordable Care Act mandates that providers participate in Accountable Care Organizations
- True/False – Dashboards can provide relevant data in a concise format
- True/False – Tracking clinical outcomes for pharmacy services can help establish the future role of ambulatory care pharmacists

Project Goals
1. Develop and implement a clinical tracking tool to capture the clinical and operational outcomes of ambulatory pharmacy services at PeaceHealth Southwest Medical Center (PHSW)
2. Design an interactive dashboard to visualize relevant data for use by pharmacy staff and leadership

Methodology
- Selection of clinical and operational metrics
  - Literature search to identify national best practices in evaluating ambulatory care pharmacy services
  - Review of implications from the National Committee for Quality Assurance’s Patient-Centered Medical Home Model initiative and the passing of the Affordable Care Act in 2010
- Development of interactive dashboard to represent relevant clinical and operational metrics
- Conduct survey of pharmacy leadership and staff to evaluate effectiveness of dashboard

Results
1. Selection of Metrics
   
<table>
<thead>
<tr>
<th>Anticoagulation services</th>
<th>Additional ambulatory care pharmacy services</th>
<th>Operational</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time within Therapeutic Range (TTR)</td>
<td>Number of patient visits for various services (e.g. polypharmacy, heart failure, drug information)</td>
<td>Number of anticoagulation patient visits per pharmacist</td>
</tr>
<tr>
<td>– Goal &gt; 65%</td>
<td></td>
<td>– Goal &gt; 20 for ACC</td>
</tr>
<tr>
<td>– Excludes first 30 days of therapy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of patients with subtherapeutic (INR &lt; 1.5) or supratherapeutic (INR &gt; 4.5)</td>
<td>Number of recommendations made/accepted by physician providers</td>
<td>Time spent performing non-clinical tasks</td>
</tr>
<tr>
<td>Number of patients experiencing adverse event since previous visit (thromboembolic or serious bleeding)</td>
<td></td>
<td>Budgeted vs. actual pharmacist hours</td>
</tr>
</tbody>
</table>

2. Metrics were incorporated into clinical tracking tools
   a. Excel® spreadsheet on shared drive for each clinic
3. Implementation of clinical tracking tool (December 2012)
   a. Data collection was conducted January – March 2013
   b. Data is self-reported by pharmacy staff
4. Creation of an interactive dashboard (see Figure 1)
   a. Dashboard is automatically updated when different months are selected from drop-down menu
5. Evaluation of sustainability and effectiveness of dashboard was conducted by survey of staff
   a. Questions assessed impressions about usefulness of information, how information will be used, and opinions on whether project should be continued
   b. Overall response from both staff and pharmacy leadership was positive for all questions (see Table 2)

Conclusion
Dashboards can provide a high-level overview of clinical and operational outcomes
- Useful for pharmacy staff and leadership to improve patient care and streamline workflows
- Can be used to demonstrate specialized skills of pharmacy to other healthcare providers (e.g. Accountable Care Organizations)

Future Implications
- Groundwork has been completed within two ambulatory care clinics offering pharmacy services
- Clinical tracking tool can be easily modified to incorporate metrics for additional clinics and/or pharmacy services
Figure 1. Example dashboard from the PeaceHealth Anticoagulation Clinic

PeaceHealth Southwest Medical Center
Ambulatory Care Pharmacy Services Dashboard

PeaceHealth Anticoagulation Clinic (ACC)

Number of Patient Visits per Pharmacist

<table>
<thead>
<tr>
<th>Month</th>
<th>Total No. of Patient Visits per month (in-person + phone)</th>
<th>Time within Therapeutic Range (%)</th>
<th>Time within Therapeutic Range +/- 0.2 (%)</th>
<th>Patient visits with INR &lt; 1.5 (%)</th>
<th>Patient visits with INR &gt; 4.5 (%)</th>
<th>Patient visits with Bleeding Event (%)</th>
<th>Patient visits with Thromboembolic event (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan-13</td>
<td>666</td>
<td>87.4</td>
<td>85.1</td>
<td>29</td>
<td>0.9</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Feb-13</td>
<td>677</td>
<td>98.1</td>
<td>86.6</td>
<td>1.3</td>
<td>0.7</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Mar-13</td>
<td>685</td>
<td>99.3</td>
<td>83.6</td>
<td>2.3</td>
<td>1.3</td>
<td>0.0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Legend
- >65%
- 60 - 65%
- < 60%

Time Usage

Anticoagulation Outcomes

Table 2. Survey Responses

<table>
<thead>
<tr>
<th>Survey Question</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical tracking tool accurately reflects daily activities</td>
<td>5/6 staff agree or strongly agree (1 neutral) 4/4 managers agree or strongly agree</td>
</tr>
<tr>
<td>Clinical tracking tool should be continued in the clinics</td>
<td>4/6 staff agree or strongly agree (2 neutral) 4/4 managers agree or strongly agree</td>
</tr>
<tr>
<td>Dashboard is useful for improving job performance</td>
<td>4/6 staff agree (1 neutral, 1 disagree) 4/4 managers agree or strongly agree</td>
</tr>
<tr>
<td>Dashboard is useful for improving patient care</td>
<td>3/6 staff agree (1 neutral, 2 disagree) 3/4 managers agree or strongly agree (1 neutral)</td>
</tr>
<tr>
<td>Publishing of dashboard monthly would be useful</td>
<td>5/6 staff agree (1 neutral) 3/4 managers agree or strongly agree (1 neutral)</td>
</tr>
</tbody>
</table>