A Simple Chart Tool to Improve Efficiency And Quality
In Urban Homeless Diabetes Care

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Introduction

- Homeless patients frequently suffer from chronic health problems like diabetes mellitus (DM) and may suffer severe complications
- We reviewed charts of frequent clinic attenders and found that diabetes was one of the top reasons listed for the visit (Figure 1).
- Goals for this project were to streamline and improve monitoring of quality indicators for diabetic patients in our clinic.
- Only 1 in 5 diabetic patients had an up to date flowsheet, the current system for monitoring diabetes management and outcomes.

Traditional flowsheet included HgA1C, BP, ASA, microalbumin and foot exam.

FIG. 1 FREQUENT ATTENDER VISIT DIAGNOSES

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>HTN</th>
<th>Pain</th>
<th>DM</th>
<th>Refills</th>
<th>Depression</th>
<th>CVD</th>
<th>Hepatitis</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent of visits</td>
<td>22</td>
<td>20</td>
<td>15</td>
<td>15</td>
<td>13</td>
<td>9</td>
<td>8</td>
<td>7</td>
</tr>
</tbody>
</table>

Methods

- We reviewed charts of patients with DM to determine how quickly key quality indicators could be gathered and if the patient met quality goals
- A chart tool sticky note was developed (Figure 2) to help organize important flowsheet, the current system for monitoring diabetes management and outcomes.
- This D5+ sticky note intervention was undertaken over a 3 month period with frequent reminders, which consisted of:
  - Discussion at team meetings
  - Educating staff and physicians
  - Providing the sticker to be placed on each visit note under vital signs
- At the end of the intervention period, a post-chart review was completed evaluating times to find D5+ indicators and whether or not patients met goals

FIG. 2 D5+ CHART STICKER

<table>
<thead>
<tr>
<th>BP&lt;140/90</th>
<th>Current smoking</th>
<th>Aspirin</th>
<th>A1c&lt;8</th>
<th>Statin</th>
<th>LDL&lt;100</th>
<th>Microalbumin&lt;30</th>
<th>ACE/ARB</th>
<th>Foot Exam Performed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>Count</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Results

- FIG. 3 PRE- AND POST-INTERVENTION TIMES TO FIND QUALITY INDICATOR RESULTS AND GOALS ACHIEVED
- FIG. 4 TIME (IN MINUTES) TO FIND ALL COMPONENTS OF THE D5+ STICKER IN PATIENTS’ CHARTS

Conclusions

- This chart tool was an effective way to decrease time needed for clinicians to find key quality data in charts.
- The chart tool was associated with improvement in compliance with certain physician behavior dependent items such as foot exams.
- The tool was still not utilized to its full potential with only 63% of charts having the tool present, although this is increased from 20% flowsheet used in the previous system.

Limitations

- Given the limited number of charts included in the review, statistical significance could not be determined for most data.
- Results may not be highly generalized to all populations.
- Many practices, including ours, are moving toward EMRs so the physical chart tool may be obsolete for many practices.

Future Directions

- Develop an equivalent EMR-based tool for our clinic.