Characterizing emergency room visits by primary care patients

Kristi Larned and Jake Decker

Internal Medicine Resident Physicians
Beth Israel Deaconess Medical Center
Healthcare Associates

ABSTRACT

The emergency department (ED) is an appropriate setting for the delivery of acute medical care. However, many of the complaints evaluated in the ED could instead be dealt with in the outpatient clinic. We hypothesized that a proportion of patients that visit the BIDMC ED could have been effectively cared for in the clinic.

We developed a tool to collect information on patient encounters in the ED. Using this tool we analyzed the charts of 149 ED visits by patients who receive their primary care at Healthcare Associates (HCA). From this we determined that a meaningful number of these visits consisted of diagnostic or therapeutic interventions that could have been performed in the clinic setting.

This data can be used to identify potential points of intervention so as to increase utilization of resources available at HCA, and to cut back on costly use of the ED for non-emergent complaints.

METHODS

AIM 1: Develop a tool to collect information on BIDMC ED visits by HCA patients which can be used by multiple data collectors consistently/reliably.

AIM 2: Determine the proportion of patients within the database who received evaluations/treatments in the BIDMC ED that are currently offered at HCA.

AIM 3: Identify trends among HCA patients that utilize the BIDMC ED.

METHODS (continued)

• A database was created to collect information on BIDMC ED encounters by HCA patients.
• 149 patients were selected randomly from HCA Nursing call-back emails.
• The database contained the following information:

<table>
<thead>
<tr>
<th>Demographics</th>
<th>High-risk medication use</th>
<th>diagnostic/intervention ability at HCA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preferred language</td>
<td>Primary complaint in ED</td>
<td>Diagnostic workup in ED</td>
</tr>
<tr>
<td>Date/time of ED triage</td>
<td>Contact with HCA prior</td>
<td>Intervention in ED</td>
</tr>
<tr>
<td>Comorbidity score</td>
<td>Comorbidity score</td>
<td>Assessment of</td>
</tr>
</tbody>
</table>

Reviewer 1

Reviewer 2

50 charts

Check for inter-rater reliability

50 charts

49 charts

149 charts
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RESULTS

• Characteristics of 149 HCA patient encounters in the BIDMC ED:

  Gender
  - Male: 30%
  - Female: 70%

  Preceding contact with HCA
  - No: 71%
  - Yes: 29%

  Care could have been provided at HCA
  - Yes (Business Hours): 21%
  - Yes (Off Hours): 31%
  - No: 48%

Chief complaints
- Back Pain
- Urinary Symptoms
- Lacerations/Bite Wounds
- Pregnancy/STI Check
- Dyspnea
- Labs
- Anxiety
- Non-Back Joint Pain
- Dizziness
- Rash
- Edema
- Cough
- GI Upset
- Trauma
- Sore Throat
- Headache
- Chest Pain
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RESULTS

- Characteristics of the diagnostic/therapeutic interventions for patients who likely could have been cared for at HCA:

**Diagnostics**

**Therapeutics**

**CONCLUSIONS**

- We developed a simple tool to collect information on ED encounters by HCA primary care patients. This tool can be used by different investigators reliably.
- A meaningful number of ED visits by HCA patients consisted of diagnostic or therapeutic interventions that could have been performed in the clinic setting.