Improving Outpatient Follow-Up for Patients with Sickle Cell Disease
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Background
- Many patients with sickle cell disease rely heavily, often in the event of vaso-occlusive pain crises, on treatment in the emergency department that can often lead to hospitalization.
- In the United States it is estimated that in one year approximately 21% of adult patients with sickle cell disease will experience at least three acute care encounters while 5% will have ten or more such encounters.1
- The high frequency of these visits is indicative of inadequate management of the disease and can place substantial cost and quality of life burdens on patients.
- Our project aims to address the problem of acute care overutilization that occurs in the absence of coordinated and effective outpatient management of sickle cell disease.

Objectives
- Improve scheduling of post-discharge hematology appointments for patients with sickle cell disease.
- Schedule appointments for within 14-28 days of discharge from hospital for a SCD related visit.
- Improve patient adherence to hematology follow-up appointments.
- Establish standard discharge procedures for sickle cell disease with pain crisis in both the ED and inpatient services.
- Provide a more coordinated, more outpatient-based system for patients with sickle cell disease.
- Reduce the 30-day emergency department re-presentation rate for patients with sickle cell disease that have been hospitalized for pain crisis.
- Help patients to experience a greater quality of life in lieu of the many burdens associated with sickle cell disease.

Methods
Population: All adult patients with sickle cell disease that presented to Boston Medical Center for SCD related complaints.

Data Sources: Inpatient discharge summaries, hematology clinic notes, outpatient appointment scheduling system.

Variables of Interest: Duration to scheduled post-discharge follow-up appointment, follow-up visit adherence, 30-day emergency department re-presentation rate.

Additional qualitative observations were made from EMR chart review, provider and patient interviews, and medicine/hematology consult rounds.

Problems Identified
- Limited availability of hematology appointments
  - Only two hemotologists at Boston Medical Center regularly see patients with SCD in the outpatient clinic.
- Considerable time constraints for both residents and interns, who are primarily responsible for scheduling appointments.
- A cumbersome process for the scheduling of appointments
  - Providers were being placed on hold for extended periods of time and were asked to respond to multiple automated prompts before speaking with someone.
- Ambiguity with regards to when it was appropriate to request a double booking.
- No reliable means by which appointments may be booked on weekends.
- A significant problem based on the fact that Mondays serve as one of the two weekly clinic dates.
- Many of the patients face a variety of socioeconomic challenges that affect their ability to adhere to follow-up appointments and treatment regimens.

Actions Taken
- Reserved appointment slots strictly for post-discharge follow-up
  - One hematologist has begun to set aside three appointments in her clinic every Monday.
  - The other has agreed to allow double booking of appointments in her clinic for all post-discharge patients without requiring her approval in each individual case.
- Direct contact with the hematology office staff
  - A determination of a direct set of pager numbers for contacting the hematology office staff was made and conveyed to the medical interns and residents.
  - Removes a time-consuming facet of the cumbersome scheduling process.
- A standard set of instructions for follow-up scheduling
  - Now included in individualized patient care plans for SCD patients that visit BMC with high frequency.
  - A set of the patients that present frequently with a significant number of SCD related complaints are now being admitted to the hospitalist service.

Analysis

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<tr>
<th>Percentage of Inpatient Discharges with Hematology Follow-Up Appointment Scheduled for Within 28 Days</th>
<th>Percentage of Inpatient Discharges Attending Hematology Follow-Up Within 28 Days</th>
<th>Percentage of Inpatient Discharges Followed by ED Re-Presentation for SCD Complaint Within 30 Days</th>
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<tbody>
<tr>
<td>Improved appointment scheduling</td>
<td>Increased clinic attendance</td>
<td>Reduced ED re-presentation</td>
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Key Dates
February 18, 2013: Introduction of open Monday hematology appointments
July 1, 2013: High frequency visitors for sickle cell disease related complaints begin to be preferentially admitted to the hospitalist service.
July 7, 2013: Standardized instructions for post-discharge follow-up scheduling are uploaded into Sharepoint care-plans for high frequency visitors.
August 19 – September 9, 2013: The hematologist at BMC who regularly sees patients with SCD in the outpatient clinic.

Standardized Scheduling Instructions

**Hematology Follow-Up Appointment Scheduling:**

- All adult patients with sickle cell disease who have been admitted to the hospitalist service.
- Standardized instructions for post-discharge follow-up appointments scheduled for within 14-28 days of discharge.
- Direct contact with the hematology office staff.

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Conclusions / Looking Forward
- Our interventions have been successful in improving the rate at which post-discharge follow-up appointments for patients with sickle cell disease are appropriately scheduled and attended by patients.
- No significant change has been observed in the 30-day emergency department re-representation rate for patients with sickle cell disease related complaints.
- Further interventions are warranted to build upon the moderate strides we have made in improving the coordination of care for patients with sickle cell disease, with a goal of reducing both the 30-day ED re-presentation and 30-day readmission rates. These include:
  - Shifting our focus from scheduling efficiency towards improved patient adherence to appointments.
  - Patient education efforts by which we may improve outpatient management of pain and other complications due to sickle cell disease.

References

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