Improving Outpatient Follow-Up for Patients with Sickle Cell Disease
Justin Slade, Tahlia Wolfgang, MPH, Patricia Kavanagh, MD, MSc, James Moses, MD, MPH, Andrew Ulrich, MD and Craig Noronha, MD
Boston University School of Medicine, Boston Medical Center

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 encounters1.
• 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 of care 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
The IHI Model for Improvement was used as the framework for guiding this effort.
Population: All adult patients with sickle cell disease that present 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.

Data
• Limited availability of hematology appointments
  • Only two hematologists 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 regimen.

Analysis

Problems Identified
• Limited availability of hematology appointments
  • Only two hematologists at Boston Medical Center regularly see patients with SCD in the outpatient clinic
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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.
    • This 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.

Conclusion / 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 being appropriately scheduled and attended by patients.
• No significant change has been observed in the 30-day emergency department re-presentation 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 presentation and 30-day readmission rates. These include:
  • Real time data tracking and direction of attention towards individual cases of poor follow-up appointment scheduling
  • An added focus on improved patient adherence to follow-up 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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