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Title

Sickle Cell Crises: A Deep Dive into Patterns of Readmissions at an Academic Medical Center

Priority 1 (Research Category)

Healthcare Services, Delivery, and Financing

Presenters

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Abstract

Context: Sickle cell disease (SCD) was identified as one of our hospital's most common causes of readmission. We noted that a small number of patients are readmitted multiple times. This indicates poor quality of life (QOL) for SCD patients and a high financial burden on the healthcare system.

Objective: Describe the trends in sickle cell admissions between Jan 2020 and Dec 2023 at an academic medical center (AMC) in Augusta, Georgia.

Study Design: Retrospective single-site cohort study of patients diagnosed with SCD (ICD10 codes starting with D57) from Jan 2020 to December 2023. Data were extracted from Vizient's clinical database.

Setting or Dataset: AMC

Population studied: Adults and children admitted with SCD.

Outcome Measures: demographic features, frequency of readmissions, length of stay (LOS), and total costs

Results: In 4 years, 110 unique patients had 780 admission encounters. The average age was 32.2 ± 14.6 , ranging from 2 to 77; 65% were female, and all patients were black ethnicity. The average LOS was 3.8 ± 5.0 days, the total cost of all admissions was USD 5.9 million, and the median total cost was USD 4779 (3177, 7523). We identified 290 index admissions (admissions >30 days from previous) and 490 30-day re-admissions. The 47 patients admitted in 2023 include 11 who have been cumulatively admitted 300 times since 2020. The highest admission rate per patient was 59 over 4 years.

Conclusions: Our four-year review of sickle cell readmissions has revealed a critical insight: a healthcare system cost of USD 5.9 million and compromised QOL for patients readmitted up to 59 times. This challenge is primarily driven by a small subset of patients who are readmitted multiple times. To address this issue, we propose a targeted, multidisciplinary approach that includes medical management and support services like mental health counseling and nutritional guidance tailored to high-risk patients. Predictive analytics could enhance the early identification of high-risk patients, reducing readmission rates and costs. Healthcare policy reforms should support continuous outpatient care, reducing frequent hospitalizations. Increased research into personalized care for sickle cell disease is crucial. These initiatives will alleviate the strain on healthcare and improve patient outcomes.

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