

Introduction

- Patients presenting to the Emergency Department (ED) with Sickle Cell Disease (SCD) in vaso-occlusive crisis (VOC) are treated sub-optimally for pain (Jacob & Mueller, 2008).
- Acute pain: most common reason SCD patients seek care in the ED (National Institute for Children's Health Quality [NICHQ], 2015)
- Delay in treatment leads to secondary complications (Tanabe, Hafner, Martinovich & Artz, 2012)

Background & Significance

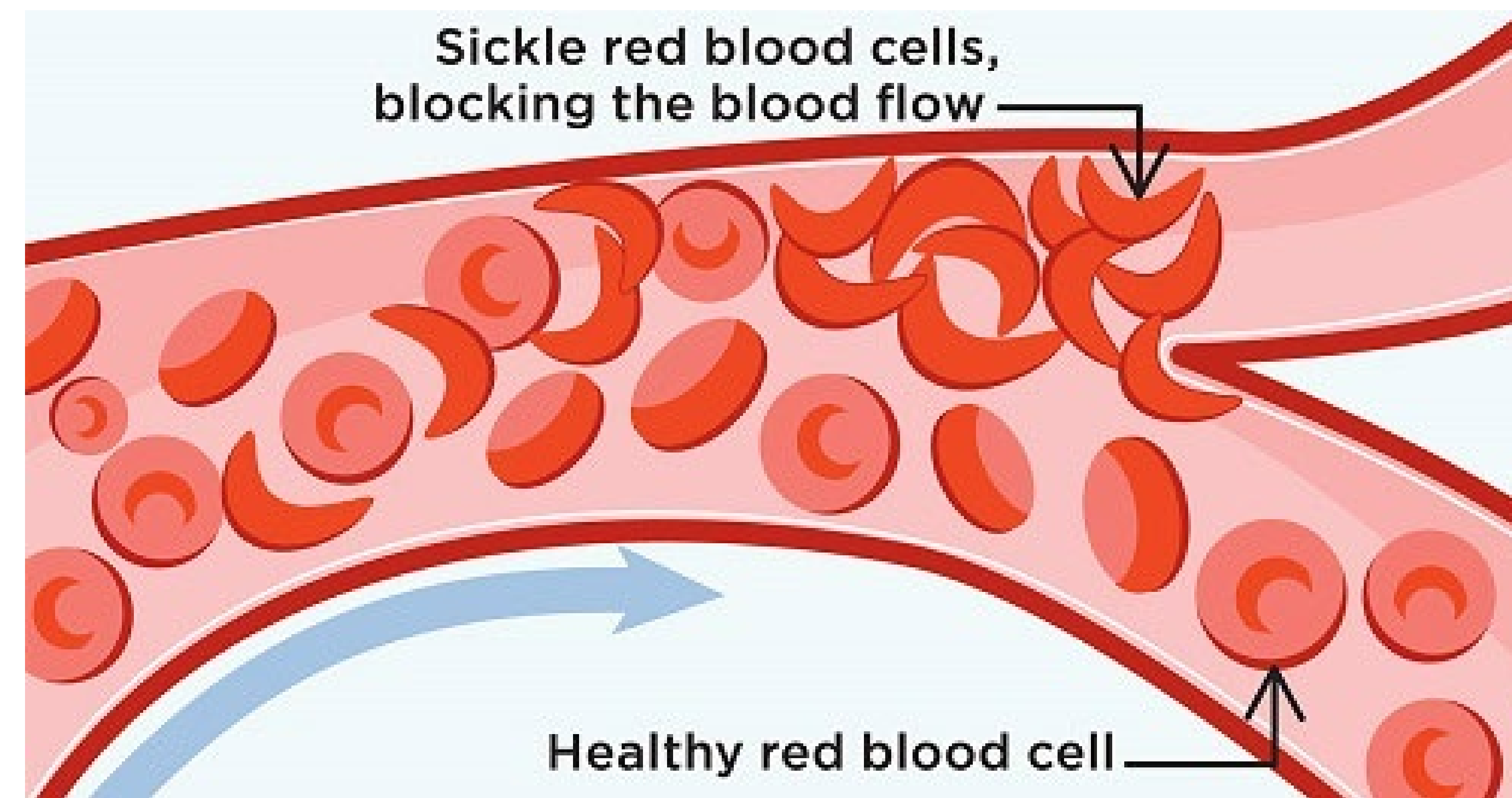
- Sickle cell disease (SCD) is the most common genetic disease in the United States (U.S.) (CDC, 2017)
- Poor pain control elevates the risk of secondary SCD complications (Tanabe, Hafner, Martinovich & Artz, 2012)
- The National Heart, Lung, and Blood Institute, (NHLBI), (2014) released an expert panel report on treating VOC in the ED
- Evidence-based practice (EBP) guidelines are not utilized which leads to inadequate pain management (Sunghee, Brathwaite, & Kim, 2017).

Aim

- To improve the care of SCD patients in VOC that present to the ED

Research Question:

“Improving the Care of Adult Sickle Cell Disease Patients Presenting with Acute Vaso-occlusive Crisis to the Emergency Department via Education”



Methodology

Design

- Pre and post intervention pilot study

Intervention

- Education: to the healthcare providers and registered nurses in the ED on the NHLBI guidelines for SCD in VOC to the ED
- Chart review: SCD patients who present to the ED in VOC

Setting

- A Level II Trauma Center's ED in Monmouth County

Measures

- Timeframe of 30 minutes from triage to first analgesic dose
- Notification to the MD, PA, and/or NP
- Assigned triage level
- 30-minute pain re-assessment
- Escalation of opioid analgesic
- Documentation of pain level at the end of the ED stay
- Medications utilized

Analysis

Descriptive statistics was used to describe the pre and post chart review data or compare treatment for SCD patients in VOC via chart review pre and post education

Results

There was no statistically significant improvement, however there was numerical increase:

- Assigned triage level (p =0.482)
- Starting first dose of analgesics within 30 minutes after being triaged (p >0.05)
- Reassessing pain within 30 minutes (p = 0.082)
- Escalating a dose of pain medications (p = 0.765)
- Notification of provider (p=0.736)
- Documenting pain at the end of the ED stay (p = 0.542)

Discussion

Implications

- Implication for clinical practice is a change in procedures in caring for SCD patients in VOC that present to the ED
- Utilizing the education on EBP guidelines to manage pain adequately and improve quality of care to SCD patients
- Integration of the NHLBI guidelines in the ED for SCD patients is necessary to provide standard of care
- An increase in knowledge related to SCD pain management in VOC among healthcare providers lead to:
 - Improved pain management in this population
 - A decrease in healthcare costs

*See please see hand-out for references

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