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## Exploring the Care Options of Sickle Cell Disease Patients: Opioid and Non-Opioid Interventions

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## **Abstract**

**Background:** Patients in Sickle Cell Crisis (SCC) experience severe pain resulting in hospitalization. Primary treatment is often opioid analgesia, which has the potential to affect hospital readmission rates, opioid dependence, and long-term pain for hospitalized Sickle Cell Disease (SCD) patients. Little research has been performed regarding the long-term effects of non-pharmacological pain interventions for SCD. **Aim:** The purpose of this study is to identify how non-pharmacological pain interventions, compared to opioid analgesia, affects long-term pain management, hospital readmission rates, and opioid dependence for patients with SCD.

**Methods:** The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) directed the article selection from CINAHL, Medline, and Healthsource. Following a comprehensive review, the articles were analyzed using emergency room admissions, reports of opioid use disorders, and patient's reports of pain (10-point scale). **Results:** Seventeen articles met the inclusion criteria of this study. The results of the study conclude that there are benefits and consequences to both opioid and non-opioid analgesia. For an improvement in patient outcomes, all options should be given and explored to patients with SCD, along with their consequences. **Conclusion:** The information in the study can be used as a guide for institutions and pharmacy departments to develop standardized pathways that utilize non-opioid analgesia and non-pharmacological interventions as an option for the treatment of SCC.

**Keywords** sickle cell disease, opioid analgesia, pain management, readmission rates, non-opioid, interventions