

Protocol Title

A study to evaluate mental health and rates of hospitalization in adolescents with Sickle Cell Disease.

Authors

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Background: Sickle cell disease (SCD) causes complications like pain episodes, acute chest events, and stroke. There is extensive damage that occurs in the brain, resulting in silent cerebral infarcts (SCI) during critical developmental stages. Routine depression screening is integral for adolescents with SCD as those with depression and anxiety may experience heightened neurocognitive abnormalities leading to increased vaso-occlusive crises (VOC's). Facing physical, social, and mental challenges during adolescence, these individuals may endure more complications and hospitalizations without appropriate intervention. This study seeks to explore the relationship between mental health, as assessed by the Patient Health Questionnaire-9 for Adolescents (PHQ-9A), and the frequency of hospitalizations for VOC's in adolescents with SCD.

Objectives: This study aims to (1) explore the association between PHQ9-A scores and VOC-related hospitalizations and (2) identify other demographic factors influencing hospitalization rates.

Methods: Adolescents (age > 12years) with SCD at St. Christopher's Hospital for Children will be included. Chart reviews will precede PHQ-9A administration, covering hospitalization data six months prior to and post-survey. Surveys will be administered via secure channels, including phone, email, or in-person. We hypothesize a significant association between mental health and VOC-related hospitalizations.

Results: The analysis of 51 patient charts revealed no statistically significant correlations between PHQ9-A scores with number of hospitalizations, length of stay, baseline hemoglobins or type of sickle cell disease. The analysis did reveal 39 patients with PHQ9-A scores over 4, indicating there is a level of depression, whether it be mild, moderate or severe.

Conclusion: This study addresses a critical gap in understanding the interplay between mental health and hospitalization rates in adolescents with SCD. By using the PHQ-9A, tailored for adolescents, we aim to contribute insights into the mental health aspects of SCD. Anticipated outcomes may inform targeted interventions, improving mental well-being and potentially reducing hospitalizations in this population. Findings could have broader implications for integrated care strategies, emphasizing the importance of mental health screening and intervention in the comprehensive care of adolescents with chronic illnesses.