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Title: *Evaluation of immunization assessment and administration in patients with sickle cell disease admitted to a large community teaching hospital*

Purpose: The purpose of this study is to determine if adult patients diagnosed with sickle cell disease admitted to a large community hospital are being reviewed for their immunization history and, if needed, administered recommended vaccines. These immunization recommendations, which differ from the general healthy population include PPSV23, PCV13, Hib, MenACWY, and MenB. These patients are also recommended to receive influenza vaccines.

Methods: A retrospective chart review was conducted. To identify patients included in the evaluation, a database query was performed using ICD9 and ICD10 codes for sickle cell disease. The evaluation period spanned from the introduction of the hospital's electronic health record (EPIC) in August 2008 to August 2018. Culture results were reviewed to determine if patients had contracted any of the infectious diseases these immunizations are utilized to prevent.

Results: 100 unique hospital admissions were identified for this evaluation. The average age of patients evaluated was 40.67 years. Assessment of immunization status was conducted in 62% of these patients at most recent admission. 29% of these patients were up to date on PCV13 with 0% caught up on the immunization at discharge. 25% of patients were up to date on PPSV23 with 0% caught up at discharge. 3% of patients were up to date on the Hib vaccine, with 1% caught up at discharge. 4% were up to date on MenACWY vaccine with 1% caught up at discharge. 0% of patients were noted to be up to date on the MenB vaccine with 0% caught up at discharge. 27% of patients were up to date on the influenza vaccine with 6% being caught up at discharge.

Conclusion: In this evaluation, the majority of patients with sickle cell disease hospitalized were not up to date on immunizations recommended by the CDC. Further, many patients were not assessed for their immunization status during the hospitalization. Based on this data, the institution should take steps to improve rates of immunization assessment in hospitalized patients with sickle cell disease and utilize the hospital admission to administer catch up vaccines when possible.