Prevalence and Immunization Coverage of Asplenic Patients at a Community Hospital in Omaha, Nebraska

Authors: Dain Finke, MD, MPH, Linda Ohri, PharmD, MPH, Rudolf Kotula, MD

Patients with reduced or absent splenic function are at an increased risk for severe bacterial infections that can be fatal in more than 50% of cases. Immunizations are an essential method to reduce the risk of these infections, but current data suggest that patient and provider knowledge and adherence to these recommendations is inadequate. The purpose of this project is to conduct an initial characterization of the asplenic population in Omaha, NE and examine their immunization status.

Analysis of the Omaha Methodist electronic medical record showed a total of 519 asplenic individuals had at least one clinical visit or hospital admission in the past five years. Among this group, 91.52% of patients had received at least one dose of a recommended vaccine, and 8.5% had not received any doses of any recommended vaccine. More specifically, the percentage of patients receiving at least one vaccine dose per vaccine assessed was 82.85% for a pneumococcal vaccine (either PCV13 or PPSV23), 8.67% for Meningococcal ACWY, 23.31% for Haemophilus influenzae type B (Hib) and 42.77% of patient had received an influenza vaccine in the past year.

Data was limited by several factors including an absence of data on the rate of meningococcal B (Men B) coverage, the number of doses completed for each vaccine and specific pneumococcal rates. Despite these limitations, the results of this project show a significant need to improve the immunization coverage of asplenic patients in Omaha.

A literature review shows several strategies improve immunization rates among asplenic patients including efforts to improve patient education, the use of vaccine standing orders, and assigning trained nursing personnel to manage assessment, education, immunization, documentation and ongoing monitoring of asplenic patients.