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Henry S. Jeng Dr
CMH

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Improving the rate of PPSV-23 vaccination in children with Diabetes Mellitus

Henry Jeng, DO; Ryan McDonough, DO

Children’s Mercy Kansas City; Division of Pediatric Endocrinology and Diabetes

Background

The routine use of PCV-13 has resulted in a dramatic reduction in the incidence of pneumococcal infections among young children. However, serious pneumococcal infections caused by additional vaccine serotypes continue to occur in older children with high-risk conditions. Thus, children with Diabetes should receive the PPSV-23 vaccine beginning at 2 years of age and at least 8 weeks after their last indicated dose of PCV-13.

A review of Endocrinology division data from March 2016 to November 2018 revealed that only 2.6% of children seen by Endocrinology have received the PPSV-23 vaccine. The aim of this project was to determine reasons for the low vaccination rate, establish a protocol to set up tracking for the eligibility and administration of PPSV-23 and to have a vaccination rate of at least 5% among the eligible patient population in a six-month period from June to December 2020. This project is also part of a multidisciplinary collaborative at CMH to improve PPSV-23 vaccination rates in eligible patients with chronic illnesses.

Data and Analysis

From a data standpoint, tracking and monitoring of vaccination rate among eligible patient population was carried out on a weekly basis. Eligibility is defined as pediatric patient with history of either Type 1 or Type 2 Diabetes who had completed childhood vaccination series of PCV-13, and thus were eligible to receive PPSV-23 vaccine during their Diabetes clinic visit. Outcome measure is the percentage of eligible patients vaccinated with PPSV-23 during Diabetes clinic visit.

Summary

With PPSV-23 vaccine being indicated in all children with Diabetes beginning at 2 years of age, this project has been started in order to help improve the rate of vaccination of this patient population at CMH. Root causes to the problem were identified and countermeasures were put in place in order to rectify them. Improvements in PPSV-23 vaccination rates were noted, although more work is needed to sustain goal for another six-month period. Vaccination rates will be monitored in conjunction with the CMH multidisciplinary collaborative to improve vaccination rates in high-risk patients with chronic illnesses.

Credits/Disclosures/References

2 Miwako Kobayashi, MD; et al. Intervals Between PCV13 and PPSV23 Vaccines: Recommendations of the Advisory Committee on Immunization Practices (ACIP). Center for Disease Control MMWR. September 4, 2015. 64(34);944-947.