QA/QI on Compliance to CDC guidelines for Hepatitis B vaccination rates among internal medicine residents
Aldo Barajas-Ochoa MD, Kajol Shah MD, Tharakeswari Selvakumar MD, PhD & Emily Gordon MD

Subject area: QA/QI

Background
Patients with diabetes mellitus (DM) are at increased risk of being infected by the hepatitis B virus (HBV) and developing complications compared to non-diabetic patients.\textsuperscript{1,2} Since 2011, CDC vaccination guidelines establish that patients aged 19-59 should be vaccinated for HBV as soon as possible after the diagnosis of DM.\textsuperscript{1} This QA project aims to determine HBV vaccination rates among eligible patients with DM at the outpatient medicine clinic.

Methods
A convenience sample of patients with DM ages 19-59 treated by residents at the internal medicine clinic was obtained through retrospective chart review. The patients’ initial visit was obtained from the 10-week interval September 16th to November 25th, 2019. Once a patient’s case was identified, the chart was reviewed for internal medicine clinic encounters in the following year, and the HBV vaccination practices were obtained. Continuous variables are presented as means ± standard deviations, categorical variables as absolute values and frequencies, and confidence intervals were calculated at 95%.

Results
A sample of 197 patients (57% female, mean age 51 ± 7.2) with DM was obtained. The average HbA1c was 8.86 ± 4 (95% CI 8.28 to 9.44). At the initial encounter, 14 patients (7.1%) were already immune or vaccinated for HBV. Of the remaining 183 non-immune patients, only 14 (7.6%; 95% CI 3% - 11%) received at least one vaccine dose during the 1-year follow-up (two received 1 dose, ten received 2 doses, and 2 received 3 doses).

Discussion
Compliance with HBV vaccination guidelines can improve. Only 7.6% of eligible patients with DM started/completed HBV vaccination during 12 months. Even in the best-case scenario of 11% target-population vaccination rates, there is still room for improvement. Study limitations include the effects of the covid-19 pandemic on vaccination practices and the possibility of patients receiving the vaccine elsewhere without documentation in our system.

References