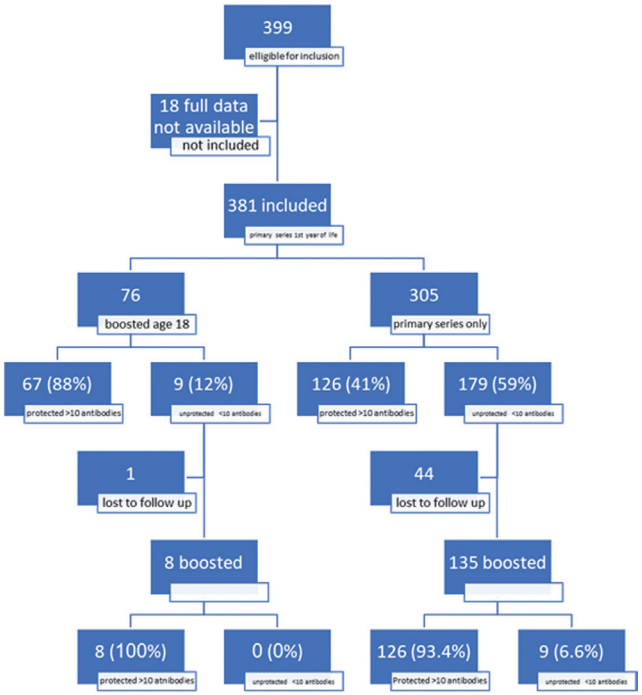


**Figure 1.** Flow chart of healthcare students monitored for HBV immunization status.

***Disclosures.*** **All authors:** No reported disclosures.

**2284. Ten-Year Effectiveness of Live Virus Herpes Zoster Vaccine**

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***Background.*** Although recombinant zoster vaccine (RZV) is recommended preferentially in adults aged ≥50 years in the United States, zoster vaccine live (ZVL) remains a recommended vaccine in immunocompetent adults aged ≥60 years and is currently being used in many countries around the world. Assessing the long-term effectiveness of both vaccines is critical for determining vaccine policy, including the optimal age to begin vaccination and the need for and timing of revaccination. We evaluated the long-term effectiveness of ZVL in adults ≥ 60 years old in the United States.

***Methods.*** We conducted a retrospective cohort study at Kaiser Permanente Southern California (KPSC). The exposed cohort included KPSC members ≥60 years vaccinated with ZVL during 1/1/2007- 12/31/2014. Three unvaccinated members were matched to each vaccinated member on age, sex, and length of membership. Individuals were followed to 6/30/2017. Electronic health records were used to identify incident herpes zoster (HZ). The effectiveness of ZVL and its 95% confidence interval (CI) at each year following vaccination was estimated.

***Results.*** The number of HZ cases was 7,783 in 923,176 person-years (8.4 per 1,000; 95% CI, 8.2–8.6 per 1,000) among vaccinated persons and 26,813 in 1,964,974 person-years (13.6 per 1,000; 95% CI, 13.5–13.8 per 1,000) among unvaccinated persons. The HZ incidence rate ratio, comparing the vaccinated to the unvaccinated, was 0.62 (95% CI, 0.60–0.63). The effectiveness by year after vaccination decreased each year of follow-up from 65.8% (95% CI, 63.2%-68.2%) in the first year, 49.3% (95% CI, 45.7%-52.6%) in the second, 32.0% (95% CI, 24.1%-39.1%) to 36.8% (95% CI, 32.3%-40.9%) in the third - sixth year, and 22.0% (95% CI, -2.5%- 40.6%) to 23.6% (95% CI, 13.4%-32.7%) in the seventh - 10$^{th}$ year. A similar pattern was seen between those 60–69 years and ≥70 years of age.

***Conclusion.*** The effectiveness of ZVL declined from 66% in the first year to 22% in the 10$^{th}$ year after vaccination. This 10-year effectiveness study of ZVL provides insights into a revaccination strategy and need for a more effective and durable vaccine. Studies of long-term effectiveness of RZV are also warranted.

***Disclosures.*** **All authors:** No reported disclosures.

**2285. Burden of Invasive and Non-Invasive Group B Streptococcal Infections in Hospitalized Adults, Louisville, Kentucky: A Large Population-Based Study**

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***Background.*** Although Group B *Streptococcus* (GBS) has been recognized as an important cause of infections in adults, most studies have concentrated on patients with invasive disease. CDC estimates that there are >25,000 adult invasive cases in the United States/year. The objective of this study was to determine the burden of invasive and noninvasive GBS infections in hospitalized patients in Louisville, KY with the goal of determining the total burden of GBS infections in the United States.

***Methods.*** We conducted a population-based, observational study of all hospitalized adults with GBS isolated from cultures and clinical evidence of active infection from 2014 to 2016 in a well-defined catchment area. Data regarding demographics, medical history, infection sites and microbiology were extracted from medical records. If GBS was isolated from more than one clinical site, the most invasive or deepest site was considered the primary infected site.

***Results.*** Of 1428 GBS isolations 352 were considered colonizations therefore 1076 infections were included; Fifty-one percent were males and the median age was 52 years. Twenty-four percent were black and 2% Hispanic. Sixty-six (6%) presented from a nursing home. The median length of hospital stay was 5.2 days and 31 (3%) died. Patients had the following comorbidities: 627 (59%) diabetes, 220 (21%) renal disease, 221 (21%) coronary artery disease, and 154 (14%) peripheral vascular disease. In 642 patients (60%) GBS was the only organism isolated (monomicrobial) and in 320 (30%) GBS was isolated from more than one clinical site. Two hundred and twelve (20%) of patients had isolates from normally sterile sites (invasive). The primary site of infection included 425 (39%) skin and soft tissue, 252 (23%) urinary, 173 (16%) bone or joint, 115 (11%) from blood, 57 (5%) respiratory, 26 (2.4%) cardiovascular, and 25 (2.3%) abdominal.

***Conclusion.*** To our knowledge, this is the first study to determine the total burden of both invasive and noninvasive GBS disease among adult hospitalized patients in the United States. Our results suggest that only 20% of cases are invasive indicating that the burden of GBS is up to five times higher than estimates based on invasive infections.

***Disclosures.*** **P. Peyrani**, Pfizer Inc.: Employee, Salary. **A. Quinn**, Pfizer Inc.: Employee, Salary. **D. L. Swerdlow**, Pfizer Inc.: Employee and Shareholder, Salary.

**2286. Revisiting Immune Interference: Evaluation of Immune Response to Yellow Fever Vaccine at Various Time Points Following Live-Attenuated Influenza Vaccination**

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***Background.*** Due to concerns for immune interference, current recommendations are to avoid other live virus vaccines for 30 days pre- and post-mass vaccination campaigns leading to interruptions in routine vaccinations. During rapid preparations for Operation United Assistance (OUA) which supplied humanitarian assistance during the Ebola epidemic, mass yellow fever vaccine (YFV) administration to deploying personnel was needed during ongoing live-attenuated influenza vaccine (LAIV) administration. This study is the first to compare seroconversion rates for YFV when given per guidelines (VBG) to rates when YFV is given 1–29 days post-LAIV (NVBG).

***Methods.*** All personnel who received LAIV concurrently or before YFV for OUA and had pre- and post-vaccination archived serum at the Department of Defense Serum Repository were included. VBG was defined as YFV given concurrently or ≥30 days after LAIV and NVBG as YFV given 1–29 days post-LAIV. YFV seroresponse was determined by screening ELISA followed by confirmation with plaque reduction neutralization testing (PRNT) on all positive samples. YFV PRNT ≥1:20 was considered positive. Exclusion criteria were prior YFV and pre-vaccination positive PRNT. Statistical analysis was performed using SPSS v22.

***Results.*** During OUA preparations, 676 personnel were vaccinated with LAIV concurrently or before YFV. Sixteen were excluded due to positive pre-vaccination PRNT. Of the 660 who met inclusion criteria, 507 were VBG (482 concurrently and 25 vaccinated ≥30 days post-LAIV) and 153 were NVBG. Median age was 25 (IQR 22, 29) for both groups. Pre-vaccination serum was drawn 280 and 345 days for VBG and NVBG respectively ($P = 0.05$). Post-YFV serum was drawn a median of 154 days following YFV in both groups. Seroconversion rates were 98% for VBG and 95% for NVBG ($P = 0.15$). Median yellow fever titers were 320 (IQR 160, 640) in both groups post-vaccination. Seroconversion rates were 98% for those with LAIV and YFV concurrently ($n = 471$), 100%, 95%, 92%, 100%, and 100% for those with YFV on days 1–6 ($n = 18$), days 7–13 ($n = 42$), days 14–21 ($n = 66$), days 22–27 ($n = 8$), and ≥28 days ($n = 44$) post-LAIV respectively ($P = 0.12$).

***Conclusion.*** In this healthy, adult population, YFV provided high levels of protection regardless of timing following LAIV.

***Disclosures.*** **All authors:** No reported disclosures.

**2287. Recently Approved HEPLISAV-B(R) [Hepatitis B Vaccine (Recombinant), Adjuvanted] Shows a Higher Proportion of Subjects Achieving Seroprotection With a More Consistent Immune Response Compared With Engerix-B(R) [Hepatitis B Vaccine (Recombinant)] in Three Comparative Trials**

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