***Conclusion.*** Influenza vaccination was most effective 14-89 days post-vaccination and effectiveness decreased thereafter. Repeat influenza vaccination, however, was not significantly associated with greater odds of influenza. The waning effectiveness of influenza vaccination indicates additional consideration be given to the timing of vaccination.

Disclaimer



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**1513. Medically Attended Respiratory Syncytial Virus Hospitalizations (RSVH) and All-Cause Bronchiolitis Hospitalizations (BH) Among Children Aged ≤ 24 Months at RSV Season Start With Higher-Risk Congenital Heart Disease (CHD) Before and After the 2014 American Academy of Pediatrics (AAP) Policy**

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**Session:** P-68. Respiratory Infections - Viral

***Background.*** In 2014, the AAP stopped recommending palivizumab for use in children with hemodynamically significant CHD (hs-CHD) aged 12 to 24 months at the RSV season start. This analysis investigates the impact of the 2014 AAP policy on the contemporary burden of RSVH and BH in children with CHD for whom palivizumab immunoprophylaxis is no longer recommended.

***Methods.*** All children with CHD aged ≤ 24 months at the start of the RSV season and hospitalized for RSV or BH during the 2010-2017 RSV seasons (November-March) were studied. RSVH and BH were defined by International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and ICD-10-CM codes. As there are no ICD codes for hs-CHD, we evaluated the effect of the guidance on higher-risk CHD as defined by ICD codes.[1] Frequency and characteristics of RSVH and BH and disease severity (including intensive care unit [ICU] admission and mechincal ventilation) for these children before and after the 2014 AAP guidance using the Children's Hospital Association's Pediatric Health Information System* (PHIS) data set were described. SAS version 9.4 was used for statistical analysis of this data, with z-tests method used to determine statistical significance.

***Results.*** RSVH significantly increased after 2014 for all higher-risk CHD children aged ≤ 24 months (3.4% [1992 RSVH CHD/59,217 RSVH] before the 2014 guidance and 4.0% [1798 RSVH CHD/45,470 RSVH] after; $P< 0.0001$) and for the subgroup of children aged 12 to 24 months at the start of the RSV season (0.5% before the guidance and 0.8% after; $P< 0.0001$). Disease severity as measured by ICU admissions in the 12 to 24 months subgroup also significantly increased after the 2014 guidance (0.2% before the guidance and 0.3% after; $P< 0.0001$). Mechanical ventilation usage was not statistically significantly increased after the 2014 guidance ($P=0.188$). A similar pattern of results was found for BH.

***Conclusion.*** RSVH, BH, and associated disease severity significantly increased among higher-risk CHD children aged 12 to 24 months, within the PHIS health system, after the 3 RSV seasons following the 2014 AAP RSV immunoprophylaxis recommendations.

***Disclosures.*** Jaime Fergie, MD, AstraZeneca (Speaker's Bureau)Sobi, Inc. (Speaker's Bureau) Tara Gonzales, MD, Sobi, Inc. (Employee) Mina Suh, MPH, International Health, EpidStrategies (Employee) Xiaohui Jiang, MS, EpidStrategies (Employee) Jon Fryzek, PhD, MPH, EpidStrategies (Employee) Adam Bloomfield, MD, FAAP, Sobi, Inc. (Employee)

**1514. Mortality and Readmission in Adults during the First Year Following Hospitalization for Community-Acquired Pneumonia in the US**

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**Session:** P-68. Respiratory Infections - Viral

***Background.*** Increasing evidence suggests that the impact of community-acquired pneumonia (CAP) extends beyond discharge from the hospital and the acute phase of illness. We sought to characterize mortality and hospital readmission across the adult age span and spectrum of comorbidities.

***Methods.*** A retrospective cohort design and data from Optum's de-identified Integrated Claims-Clinical dataset (2009-2018) were employed. Study population comprised all adults who, between 1.1.2013 and 12.31.2017, had ≥ 1 acute-care hospitalization for CAP; each qualifying CAP hospitalization separated by ≥ 365 days was included as a unique observation in analyses. Study outcomes included acute-care hospital readmission for any reason and death for any reason. Hospital readmission was ascertained during the 360-day period following discharge from the CAP hospitalization; death was ascertained during the CAP hospitalization as well as during the same 360-day period. Cumulative rates of mortality and readmission were summarized for all patients as well as subgroups defined on age and comorbidity profile (i.e., healthy, at-risk, high-risk).

***Results.*** Study population totaled 37,006 patients who contributed 38,809 CAP hospitalizations; mean age was 71 years, 51% were female, and 88% had an at-risk (33%) or high-risk (55%) condition. Hospital readmission was 12.5% during the 30-day post-discharge period, and 42.3% during the 360-day post-discharge period. Mortality was 3.5% in hospital, 8.2% from admission to 30 days post-discharge, and 17.7% from admission to 360 days post-discharge. Mortality rates increased with age and severity of comorbidity profile; readmission rates were highest for persons aged 65-74 years and high-risk persons.

Rates of readmission and mortality among adults hospitalized for CAP

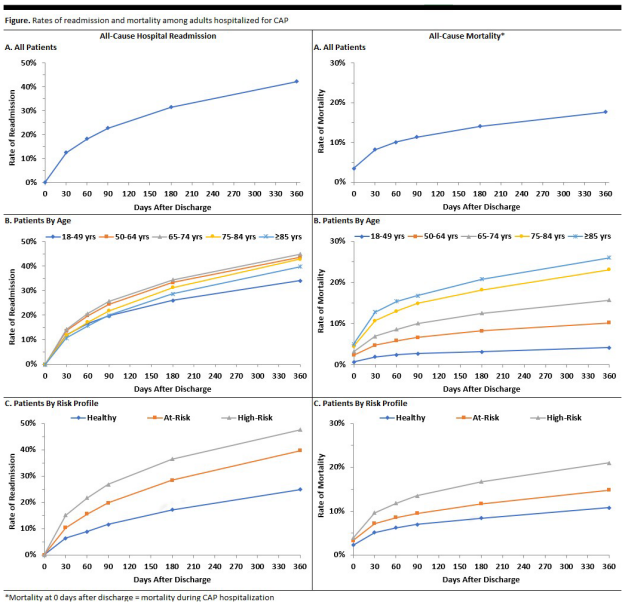


Figure. Rates of readmission and mortality among adults hospitalized for CAP

*Mortality at 0 days after discharge = mortality during CAP hospitalization

***Conclusion.*** All-cause mortality up to 1 year following hospital admission for CAP was substantial, and was associated with increasing age and worsening comorbidity profile. Both readmission and mortality were greater at all ages in high-risk and at-risk groups compared with their healthy counterparts. Strategies that prevent pneumonia and/or the pathophysiologic changes that follow CAP, especially among individuals with comorbid conditions, have the potential to reduce morbidity and mortality following CAP as well as healthcare costs associated with readmission.

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**1515. Nationwide trends of invasive pneumococcal disease in Spain for the period 2009-2019**

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**Session:** P-68. Respiratory Infections - Viral

***Background.*** Introduction of pneumococcal conjugate vaccines (PCV) is an effective measure to control the invasive pneumococcal disease (IPD) although the emergence of non-vaccine serotypes is of great concern worldwide.

***Methods.*** This study includes national data from IPD cases affecting pediatric and adult population for the period (2009-2019). Data contain 25341 laboratory-confirmed clinical isolates of *Streptococcus pneumoniae* causing IPD in Spain.