

## ORAL ABSTRACTS

## 1744. Prevalence of Respiratory Viral Pathogen Testing and Co-Detections Among Patients Hospitalized With Influenza, 2012–2015

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**Background.** The clinical significance of respiratory viral pathogen co-detections is not well described. We determined the prevalence of co-detections among patients hospitalized with influenza and described characteristics of patients with and without co-detections.

**Methods.** We included adults and children (<18 years old) hospitalized with laboratory-confirmed influenza and enrolled in the Influenza Surveillance Network (FluSurv-NET) during the 2012–2015 influenza seasons (October 1–April 30). We abstracted data from medical records on clinician-directed testing for at least one other respiratory viral pathogen (respiratory syncytial virus [RSV], adenovirus [AdV], parainfluenza 1–4 [hPIV], human metapneumovirus [hMPV], rhinovirus/enterovirus [hRV] and coronavirus [hCoV]). We used Stepwise logistic regression to examine factors associated with co-detections compared to influenza alone.

**Results.** In total, 4939 children and 34,837 adults were hospitalized with influenza; 3796 (77%) children and 9863 (28%) adults were tested for at least one additional pathogen. RSV was the most commonly tested pathogen among children (76%) and adults (28%). Among those tested, 687 (18%) children (Figure 1) and 279 (3%) adults (Figure 2) tested positive for  $\geq 1$  additional pathogen; the most common pathogen co-detected among children was RSV (11%). Children with co-detections were more likely than those with influenza alone to be <2 years old (aOR 2.8; 95% confidence interval [CI] 2.2–3.6), have bronchiolitis (aOR 5.5; CI 4.4–6.9) or pneumonia (aOR 1.4; CI 1.1–1.7) and be admitted to an ICU (aOR 1.4; CI 1.1–1.7) and less likely to be born prematurely (aOR 0.7; CI 0.5–0.9). Adults with co-detections were more likely than those with influenza alone to be <65 years old (aOR 1.8; CI 1.4–2.3) and

immunocompromised (aOR 1.5; CI 1.2–1.9).

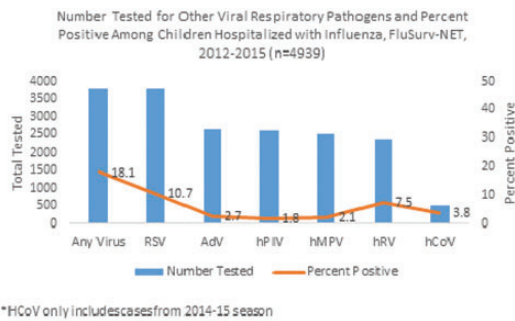


Figure 1.

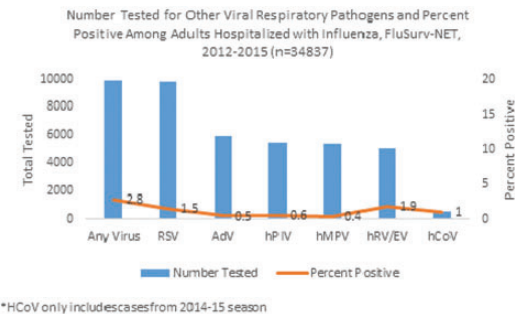


Figure 2.

**Conclusion.** Over 75% of children and 25% of adults hospitalized with influenza were tested for additional viral respiratory pathogens. While RSV co-detection was common among children, viral co-detections were uncommonly tested for and detected among adults. Children with influenza plus other virus co-detections were more likely to have bronchiolitis, pneumonia and be admitted to an ICU compared to those with influenza alone.

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