WINTER VIRUSES: INFLUENZA- AND RESPIRATORY SYNCYTIAL VIRUS-RELATED MORBIDITY IN CHRONIC LUNG DISEASE


Purpose of the Study. Chronic lung disease predisposes to serious consequences of respiratory viruses. Although increasing influenza immunization rates in older adults signal an awareness of the impact of influenza, children with asthma are infrequently immunized. Although respiratory syncytial virus (RSV) is recognized as an important target of vaccine development for infants, its impact on adults is underappreciated.

Patient Population and Methods. We performed a retrospective cohort study to estimate rates of hospitalizations, deaths, outpatient visits, and antibiotic courses attributable to influenza and RSV in persons with chronic lung disease in the Tennessee Medicaid program from 1995–1999. Differences between study event rates when influenza was co-circulating with RSV and event rates when RSV was circulating alone were used to calculate influenza-attributable morbidity. Differences in rates when RSV was circulating alone and during summer months were calculated to assess the effect of RSV.

Results. Influenza- and RSV-associated hospitalizations were highest at the extremes of age. There were an estimated 8 and 23 hospitalizations per 1000 children younger than 5 years annually attributable to influenza and RSV, respectively. There were 23 and 18 hospitalizations, as well as 2 and 5 deaths per 1000 persons 65 years or older annually attributable to influenza and RSV, respectively. Both viruses were associated with an excess of outpatient visits in children, and antibiotic prescriptions in all age groups.

Conclusions. Among persons with chronic lung disease, influenza virus and RSV accounted for 15% to 33% of acute respiratory hospitalizations in children, 7% to 9% of such hospitalizations in adults, and 9% of deaths in those 65 years or older.

Reviewer’s Comments. This study reminds us that influenza and RSV remain potentially serious infectious illnesses in patients with chronic lung disease. It seems to me that we might be more vigorous in our efforts to vaccinate seniors (who often initiate the process themselves) than younger children with asthma whose parents may resist giving an injection.

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