

# Increased risk of pneumococcal pneumonia with hospital admission during school holidays

September 5 2016

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A study presented today (6 September 2016) at this year's European Respiratory Society (ERS) International Congress in London, UK shows that adults admitted to hospital during school holidays are 38% more likely to have pneumococcal community-acquired pneumonia (CAP) than those admitted during term time. The study is by Dr Priya Daniel, Clinical Research Fellow and Specialist Registrar in Respiratory Medicine, Nottingham University Hospitals Trust, UK, and colleagues.

Child contact is a risk factor for adult pneumococcal disease. In this new research, the authors hypothesised that school holidays would be associated with increased rates of adult non-invasive pneumococcal CAP, due to changes in child contact patterns and transmission of *Streptococcus pneumoniae*.

Between September 2008 and 2013, adults admitted with CAP to 2 hospitals that covered the catchment area of Greater Nottingham, were studied prospectively. Of 2,221 individuals, 643 (29.0%) were diagnosed with pneumococcal CAP. Of those with pneumococcal CAP, 203 (31.5%) were admitted during school holiday periods. Admission during school holidays was independently associated with a diagnosis of pneumococcal CAP, after adjustment for variables including child contact. There was a 35% increase in the age-adjusted incidence rate of adult pneumococcal CAP during school holidays compared to term time.

Dr Daniel says: "Our results demonstrate a higher incidence of pneumococcal CAP in adults hospitalised during school holiday periods compared to term-time. Duration and intensity of child contact may play an important role in pneumococcal disease transmission to adults, however, as this is an observational analysis causality cannot be assumed."

She adds: "Social interactions between [adults](#) and children seem to be important in relation to rates of pneumococcal pneumonia. Adults at higher risk of developing severe pneumococcal pneumonia may benefit from being vaccinated in accordance with current national guidelines. "

Provided by European Lung Foundation

Citation: Increased risk of pneumococcal pneumonia with hospital admission during school holidays (2016, September 5) retrieved 28 April 2024 from <https://medicalxpress.com/news/2016-09-pneumococcal-pneumonia-hospital-admission-school.html>

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