

Asthma a significant risk factor for complications in children with H1N1

November 19 2009

A new study on pediatric H1N1 influenza admissions has found that asthma is a significant risk factor for severe disease in children with pandemic H1N1 compared with the seasonal flu. The study, led by researchers from The Hospital for Sick Children (SickKids) in Toronto, Ontario, is published online today in *CMAJ (Canadian Medical Association Journal)*.

This is the second largest study on the topic published to date. It looked at the charts of 58 children admitted to SickKids between May 8 and July 22, 2009 and compared them to 200 children admitted with [seasonal influenza](#) between 2004 and 2009. Every year, the hospital admits about 40 children under 18 years of age with seasonal influenza.

Twenty-two per cent of children admitted with [H1N1](#) had asthma compared with 6% of those admitted with seasonal influenza. Asthma was determined as a prior diagnosis of asthma or reactive airways disease, or a history of wheeze with the use of inhalers. Almost half of all admissions to the ICU for H1N1 influenza were children with asthma.

The children with H1N1 influenza were older than those admitted for seasonal flu, with significantly more over the age of 5 years. Many children (49 or 84%) presented with fever and cough, with or without additional symptoms and 37% (21 children) had gastrointestinal symptoms such as vomiting and/or diarrhea. The median duration of hospital stay for both H1N1 and seasonal influenza was 4 days.

"The most striking finding in our study was the high prevalence of asthma among children admitted with pandemic H1N1 influenza compared with those admitted in previous influenza seasons," write Dr. Upton Allen from The Hospital for Sick Children and coauthors. "Asthma has been identified as a significant risk factor for admission with pandemic H1N1 influenza, present in 21%-30% in the larger samples."

None of the children admitted with pandemic influenza died compared with 1 death (0.4%) over 5 years in those admitted for seasonal influenza.

Principal investigator Dr. Dat Tran and co-authors found that severity of asthma was broad and that children with mild asthma were also at risk. They conclude that [children](#) with mild [asthma](#) should be vaccinated for H1N1 and considered for antiviral therapy.

More information: <http://www.cmaj.ca/cgi/rapidpdf/cmaj.091724>

Source: [Canadian Medical Association Journal](#) ([news](#) : [web](#))

Citation: Asthma a significant risk factor for complications in children with H1N1 (2009, November 19) retrieved 23 April 2024 from <https://medicalxpress.com/news/2009-11-asthma-significant-factor-complications-children.html>

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