

Enterovirus D68 not associated with higher death rate in children

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The enterovirus D68 (EV-D68) respiratory infection that affected young children in 2014 appeared to be more virulent than other respiratory infections, but it does not seem to have been related to an increased risk of death or need for critical care, according to new research published in *CMAJ (Canadian Medical Association Journal)*.

From August to October 2014, many cases of severe respiratory illness in [children](#) in the United States and Canada were caused by EV-D68, which led to an increase in hospitalization and admission to intensive care. Some thought that this strain was more aggressive than the other strains of this virus that typically result in the common cold.

In a comparison of children with EV-D68 and those with other rhinovirus and enterovirus infections at McMaster Children's Hospital, Hamilton, Ontario, researchers sought to compare the severity of illness in the two groups. Of the 297 children tested for rhino/enterovirus, 93 tested positive for EV-D68, resulting in 87 matched pairs for the study.

"We found that patients with EV-D68 infection were more likely to present with [respiratory distress](#), more likely to be admitted to hospital, and were more frequently given magnesium sulfate or intravenous salbutamol than patients with rhinovirus or non-EV-D68 infection. However, they were not significantly more likely to require admission to the pediatric [critical care](#) unit or to die," writes Dr. Dominik Mertz, McMaster University, Hamilton, Ontario, Canada, with coauthors.

Children with EV-D68 admitted to [hospital](#) were more likely to have a family history of atopy (allergies/asthma).

In a related commentary, Drs. Michelle Science and Upton Allen from The Hospital for Sick Children (SickKids), Toronto, suggest that, "It seems reasonable to hypothesize that EV-D68 may be a more virulent pulmonary pathogen in patients with pre-existing atopic disease when compared with rhinoviruses and other enteroviruses."

The commentary authors suggest that children and teenagers were mostly affected by the virus because they might not have developed immunity from previous exposure to enteroviruses because of their age.

More information: www.cmaj.ca/lookup/doi/10.1503/cmaj.150619

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