

CPSP: Study aims to quantify RSV risk for post-transplant children

Respiratory Syncytial Virus (RSV) likely appears regularly in your caseload. And there were many more patients with RSV that you probably didn't see, since every child will have it at some point, and for most it comes in and goes out as a regular cold.

But for children who have had a solid organ transplant (i.e., of the liver, heart, lungs, kidneys, intestines [SOT]) or hematopoietic stem cell transplant (HSCT), the risk RSV presents is far from routine. While it is known that about one per cent of all children with RSV will be admitted to hospital, no study has quantified the real risk to post-transplant children – until now, with the newest study started this fall under the CPS Paediatric Surveillance Program (CPSP).

The only current research estimates that when children develop a lower respiratory tract infection with RSV within one year of their transplant, almost all of them will end up in hospital – and 70 per cent will die. However, most of the patients in that study were adults, with the paediatric numbers estimated through a decision analysis. Moreover, no data exist on the nature of less severe cases, which have gone unreported.

“My estimate is that the number of children who actually do die after developing RSV within two years of transplant is way lower than 70 per cent,” said Dr. Joan Robinson, professor in the Department of Paediatrics, University of Alberta and Program Director of pediatric infectious diseases at Stollery Children's Hospital.

Dr. Robinson and her co-investigators will gather data specific to in- and outpatients under 18 who have a confirmed RSV infection and have received a SOT or a HSCT within the two previous years.

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Dr. Joan Robinson

“We may find that all of these children are admitted and lots will indeed have a bad outcome. But we don't yet know for sure,” she said. “We also don't know about the children who have a solid organ transplant and are still okay a year out.”

Another factor underscoring the need for reliable data is the prophylaxis, palivizumab. This treatment has shown some promise and low risk of adverse effects in preventing RSV. However, it is also highly costly at approximately \$8,000 per RSV season for a child weighing 7 kg. “We want to figure out whether the risk is high enough in these children that they should be using the prophylaxis,” said Dr. Robinson.

For details on this and other CPSP studies, visit www.cps.ca and select Surveillance from the left navigation bar. 📄

Your opinion on vaccine priorities

Last fall, a research team from several Canadian academic institutions carried out a postal survey aiming to document physicians' opinion on different vaccines. The Canadian Paediatric Society was a partner in this survey, and almost half of the members contacted (49.8% or 912) responded. The results provide essential data for decision-makers, particularly for developing immunization programs, and for planning continuing medical education.

Scientific posters were presented at the 2010 European Society for Paediatric Infectious Diseases conference in May, and at the

2010 International Papillomavirus Conference in July. Others are being presented at the Canadian Immunization Conference this December. Visit the National Institutes of Health website to see a poster summarizing the vaccine priority-setting procedure calculated from paediatricians' responses to this survey (www.ncbi.nlm.nih.gov/pmc/articles/PMC2864287/pdf/1756-0500-3-102.pdf).

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