

# Superbug surfaces in Canada

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TORONTO — A new and ominous strain of the bacterium that causes ear infections in children is emerging in Canada, one that is resistant to every antibiotic approved to treat the common illness.

The multi-drug-resistant 19A sub-strain of pneumococcus has already been diagnosed in parts of the United States, where doctors have had to resort to administering an antibiotic typically used to treat adults and one that is not approved for use in children.

A 14-month-old child being treated at the Hospital for Sick Children in Toronto may be the first person in this province to have been infected by the superstrain.

The child was healthy, fully vaccinated and had not travelled, but doctors believe the child picked the strain up in the community and developed a severe case of bacterial meningitis, a serious infection of the fluid around the spinal cord and brain that can lead to deafness and neurological damage. The child remains in hospital and is still undergoing treatment, said Upton Allen, an infectious disease specialist at the hospital.

While Dr. Allen and other experts are confident that the superstrain is not a cause for alarm for the general public, they are calling for closer surveillance.

As soon as the bug was confirmed to be resistant to the standard antibiotics used to treat children with ear infections, a group of eight high-profile infectious disease experts in Ontario, including Donald Low and Allison McGeer, wrote an internal memo to the province's acting chief medical officer of health, David Williams, and recommended an immediate provincewide strategy to monitor how the bug is developing and mutating.

"This case is of particular concern," they write, "[because] this is an unusually resistant *S. pneumoniae* isolate causing invasive disease in a previously healthy fully vaccinated child ... [and] the patient did not have a travel history suggesting that this isolate is circulating in the Toronto region."

In an interview last night, Dr. Williams said that physicians have been monitoring similar resistant subtypes of this strain for the past year after some cases emerged in British Columbia. "At this stage, we are monitoring and collecting more information on this case in particular and then we'll prepare an update for physicians to be alert to the fact that these organisms are out there, and to carry out the proper sampling and testing accordingly."

Janet Casey, an associate professor of pediatrics at the University of Rochester Medical Center discovered this new strain with her colleague Michael Pichichero and published a report in the Journal of the American Medical Association last month.

"It's a concern for us because it's so resistant to antibiotics. When you have a bacteria that you don't have an antibiotic to treat, that means that essentially that infection can run rampant," Dr. Casey said.

"It isn't a public health concern from the standpoint of influenza, which spreads easily from child to child and from person to person."

She said parents should be looking out for ear infections in their children that aren't going away with the use of prescribed antibiotics.

A childhood vaccine that protects against many strains of pneumococcal infection is still very powerful, she said, and should continue to be given to children. But while that vaccine doesn't protect against this particular strain, a reformulated version is expected in a few years.

Until then, doctors will have to remain vigilant, she said.

*With reports from Avis Favaro and Elizabeth St. Philip*