What do you know about measles and vaccination?

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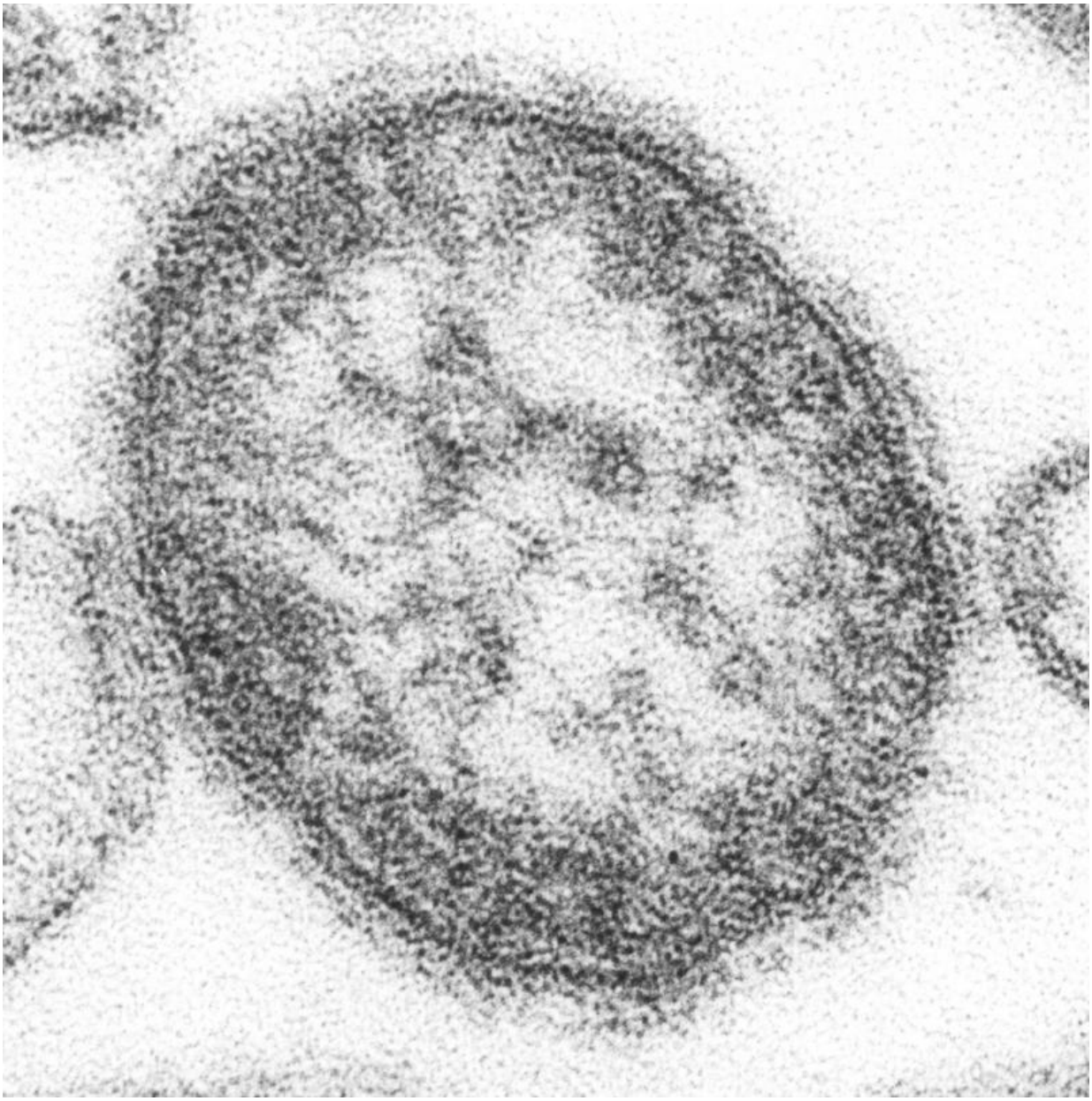

An electron micrograph of the measles virus. Credit: CDC/ Courtesy of Cynthia S. Goldsmith

With measles cases rising in Canada and internationally, it is important for clinicians to understand the disease and the role of vaccination against measles. Two articles in *Canadian Medical Association Journal* provide succinct overviews of this highly infectious disease. Many clinicians may not have direct experience with measles diagnosis and treatment as Canada achieved measles elimination status in 1998.

"The increase in measles activity globally and in Canada is a reminder of the importance of immunization. Routine childhood vaccines, including measles, that were missed during the COVID-19 pandemic should be urgently caught up. Clinicians should also be on the alert for measles when evaluating patients, especially those with a history of travel or those who might have been exposed in local outbreaks," says author Dr. Sarah Wilson, a physician at Public Health Ontario.

Measles is one of the most contagious respiratory infectious diseases. Individuals with measles develop fever, cough, runny nose, and conjunctivitis. A rash that starts on the face and spreads throughout the body can then follow, about four days later.

Complications from measles infection are reported in 30% of cases. These can include ear infections, pneumonia, pregnancy complications, and neurologic complications, including encephalitis. Measles can also cause temporary secondary immunodeficiency. Most measles cases in Canada occur in unvaccinated people, especially children.

Given how infectious measles is, health care providers should pre-

emptively contact health care facilities if they are referring suspect cases to be evaluated or tested, to ensure that appropriate infection prevention and control measures are used to avoid exposing other patients and staff.

Despite effective vaccination programs, measles outbreaks are increasing, emphasizing the need for heightened vaccination efforts. The Canadian Immunization Guide recommends the administration of the measles, mumps, and rubella (MMR) vaccine for all individuals in Canada, with specific dosing schedules and catch-up recommendations.

For travel or outbreaks, MMR vaccination can occur beyond standard schedules, with guidelines provided for accelerated vaccination and post-exposure prophylaxis. Adults without measles immunity or vaccination records can receive 1–2 doses of the MMR vaccine, depending on their age, travel history, and risk factors. The MMR vaccine is safe and effective. However, individuals with immunocompromised conditions require careful consideration.

"Measles is highly contagious and making a comeback worldwide. The measles vaccine is effective and safe. However, those who are immunocompromised or pregnant are not able to receive it. Herd immunity through mass vaccination is therefore critically important.

"Our paper summarizes who should get the vaccine outside of the typically recommended schedule, particularly children, who are particularly vulnerable to measles complications. We also provide guidance for adults to receive 1 or more doses of the vaccine, depending on their year of birth, travel or residence in an area affected by outbreaks, and occupation," says Dr. Samira Jeimy, program director and assistant professor, Clinical Immunology and Allergy, Western University, London, Ontario.

More information: *Canadian Medical Association Journal* (2024).