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## Domestically Acquired Human Case of Rabies in Ontario

**Attention:** Physicians, Hospitals, ER Manager, ER Physician, Community Health Centres, Walk-In Urgent Care Clinic, Nurse Practitioner, Ontario Health, Ontario Health Teams, Family Health Team, Indigenous Healthcare & Community,

**Date:** September 11, 2024

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Last week, the Office of the Chief Medical Officer of Health alerted Public Health to a case of clinical rabies in Ontario. **The case was exposed to a bat in Ontario and became progressively ill. They were later admitted to the hospital for care with clinical signs of encephalitis and symptoms consistent with rabies; clinical diagnosis of rabies was made and confirmed by PCR analysis. This marks the first domestically acquired case of human rabies in Ontario since 1967.**

Rabies is a viral disease transmitted by saliva from an infected animal and enters the central nervous system. Exposures to rabies can happen in two ways – bite exposures and non-bite exposures. Bite exposures involve the penetration of teeth into flesh, while non-bite exposures involve the contamination of scratches, abrasions, or cuts of the skin or mucous membranes by saliva or other potentially infectious material, such as the brain tissue of a rabid animal. A history of any direct contact with a bat is significant given that bites from bats can be inapparent. Transmission cannot occur by exposure to the blood, urine, or feces of infected animals.

### SMDHU recommends:

#### Prompt Reporting to Public Health

Rabies is a disease of public health significance in Ontario under the Health Protection and Promotion Act. When a suspected exposure to rabies occurs with a relevant animal contact, the case must be reported to the Simcoe Muskoka District Health Unit, which is available 24/7 at 705-721-7520 or 1-877-721 7520 ext. 8811 (Monday – Friday 8:30am – 4:30pm) or after hours at 1-888-225-7851 (evenings, weekends or holidays). In addition, please report all animal bites, including direct contact with a bats, or exposure to saliva or infectious tissues from animal species, by completing the [Rabies and Animal Exposure Incident Report](#) and faxing it to the SMDHU Rabies Program at 705-725-8132.

For domestic animal exposures (such as a dog or a cat), SMDHU will implement a 10-day observation period, regardless of the rabies vaccination status of the animal, to ensure it is not infectious with the rabies virus.

For bats or wild terrestrial animal exposures, please ask patients if they have the animal available for testing. SMDHU will facilitate the collection, submission and testing of animal for rabies and this can help to avoid or reduce rabies prophylaxis for exposed patients.

When determining the need for post exposure rabies immunization, the current [Ministry of Health Management of Potential Rabies Exposures Guideline, 2020](#) is recommended as a resource. For additional physician and client resources related to rabies, including assessment and rPEP administration tools, please visit our [Health Professionals Portal](#) on the SMDHU website.

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Human rabies is an extremely rare disease in Canada due to effective public health prevention and control measures and the availability of publicly funded rabies vaccines and immunoglobulins. Since reporting of the disease began in Canada in 1924, there have been 26 other cases of rabies in humans in six provinces; all cases were fatal. Prior to this case, the most recent death in Canada occurred in an adult male in British Columbia from a bat exposure in 2019.

There are different strains of rabies. One vaccine protects against all strains. There are three strains presently in Ontario: "Arctic fox" (predominantly in foxes and skunks), raccoon strain, and a variety of bat strains. Statistics show that bats are the most frequently reported animals testing positive for rabies across Canada. Skunks and raccoons have also tested positive in Ontario as recently as 2023. In 2024, the only rabies detections in the province have been in bats, with 42 positive identifications (approx. 16% of submitted bats). Within Simcoe Muskoka, in 2023, the Simcoe Muskoka District Health Unit (SMDHU) submitted 18 bats for rabies testing, and 3 bats tested positive for rabies (16.6%), consistent with the percent positivity rate in Ontario.