



HALTON REGION PUBLIC HEALTH • Office of the Medical Officer of Health

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TO: Halton Physicians, Nurse Practitioners, Emergency Departments, other Healthcare Providers

FROM: Dr. Patrick Galange, Associate Medical Officer of Health

DATE: September 8, 2025

RE: Eastern Equine Encephalitis Virus (EEEV) in a Milton Horse

QUICK FACTS

- An equine case of Eastern Equine Encephalitis virus (EEEV) has been confirmed in a Milton horse with no history of travel, indicating local acquistion. This is the first confirmed EEEV case in an animal in Halton Region since provincial surveillance testing began in 2011.
- Hamilton Public Health <u>recently received laboratory confirmation of a human case of EEEV</u>. There have been no human cases reported in Halton Region.
- EEEV infection is rare in humans, but can be severe. Neurological disease is associated with a high case fatality rate (30%) and often results in significant long-term disability (50-90%).
- Consider EEEV serology, as part of your work-up, in patients presenting with a fever and/or neurological symptoms, where mosquito exposure is a potential risk factor.
- There are no approved antivirals or vaccinations for EEEV in humans.
- Report any suspected or confirmed cases of EEEV causing encephalitis to Halton Region Public Health by calling 311.

KEY MESSAGES FOR HEALTHCARE PROVIDERS

- Similar to WNV, birds are the primary reservoir for EEEV. Mosquitoes can <u>transmit the virus</u> from infected birds to horses and humans, who are considered dead-end hosts and do not spread the virus further.
- Most cases of EEEV are asymptomatic. When symptoms do occur, the incubation period is <u>3-10</u> days.
 - EEEV can cause a flu-like illness (fever, chills, body aches, and joint pain) or neurologic disease, including meningitis or encephalitis.
 - Neurological disease caused by EEEV may present at the onset of illness or develop after several days of febrile illness. It can manifest as meningitis and/or encephalitis, with symptoms such as headache, vomiting, seizures, paralysis and behavioral changes.
 - There is no specific treatment for EEEV. Clinical management is supportive, focusing on symptom relief and seizure control.
- Serology is the preferred method to detect EEEV infection. For additional laboratory information, visit Public Health Ontario's <u>webpage</u>.
 - Specimens must be sent to the Public Health Ontario Lab (PHOL) with both the <u>General Test</u> <u>Requisition Form</u> and the <u>Vector-borne and Zoonotic Virus Testing Intake Form</u>.

KEY MESSAGES FOR PATIENTS

No human vaccines against EEEV exist. Counsel patients on mosquito-bite prevention, especially
when visiting swampy areas, where EEEV is mostly found. For more information on how residents
and their families can protect themselves from mosquito bites, visit halton.ca.

ADDITIONAL RESOURCES

- <u>Eastern Equine Encephalitis Virus: History and Enhanced Surveillance in Ontario</u>, Public Health Ontario
- Eastern Equine Encephalitis: Symptoms, Diagnosis, and Treatment, CDC
- Eastern Equine Encephalities Virus, CDC

Please report all suspected/confirmed cases of <u>Diseases of Public Health Significance</u> (only report COVID-19 cases occurring in high-risk settings) to Public Health immediately by calling 311, 905-825-6000 or toll free at 1-866-442-5866.