

Rabies Prevention and Control Protocol, 2013

Preamble

The Ontario Public Health Standards (OPHS)¹ are published by the Minister of Health and Long-Term Care under the authority of the Health Protection and Promotion Act (HPPA)² to specify the mandatory health programs and services provided by boards of health. Protocols are program and topic specific documents which provide direction on how boards of health must operationalize specific requirement(s) identified within the OPHS. They are an important mechanism by which greater standardization is achieved in the province-wide implementation of public health programs.

Protocols identify the minimum expectations for public health programs and services. Boards of health have the authority to develop programs and services in excess of minimum requirements where required to address local needs. Boards of health are accountable for implementing the standards including those protocols that are incorporated into the standards.

Purpose

This protocol has been developed to provide direction to boards of health in the implementation of specific requirements of the Rabies Prevention and Control Standard. The purpose of this protocol is to prevent a human case of rabies by standardizing animal rabies surveillance and the management of human rabies exposures.

Further direction is also articulated, with respect to rabies case and contact management, in the disease-specific chapter for rabies which is included in Appendix A of the most current version of the Infectious Diseases Protocol.

Reference to the Standards

Table 1: identifies the OPHS standards and requirements to which this protocol relates.

Standard	Requirement
Rabies Prevention and Control	<p>Requirement #2: The board of health shall report rabies data elements in accordance with the Health Protection and Promotion Act and the <i>Rabies Prevention and Control Protocol, 2008</i> (or as current).</p> <p>Requirement #3: The board of health shall conduct surveillance of rabies in accordance with the <i>Population Health Assessment and Surveillance Protocol, 2008</i> (or as current) and the <i>Rabies Prevention and Control Protocol, 2008</i> (or as current).</p> <p>Requirement #7: The board of health shall ensure that the medical officer of health or designate is available on a 24/7 basis to receive reports of and respond to suspected rabies exposures in accordance with the Health Protection and Promotion Act; the <i>Public Health Emergency Preparedness Protocol, 2008</i> (or as current); and the <i>Rabies Prevention and Control Protocol, 2008</i> (or as current).</p> <p>Requirement #8: The board of health shall address the prevention and control of rabies threats as per a local Rabies Contingency Plan, as outlined in the <i>Rabies Prevention and Control Protocol, 2008</i> (or as current).</p>

Operational Roles and Responsibilities

This protocol shall be followed in accordance with the Rabies Vaccine chapter of the *Canadian Immunization Guide*³ or NACI statements published after the most recent immunization guide and the ministry's *Guidance Document for Management of Potential Rabies Exposures*⁴. Consult the *Canadian Immunization Guide*³ for information on vaccine schedule, dose, route of administration, considerations for immunocompromised persons, and products licensed for rabies post-exposure prophylaxis (PEP) use in Canada.

1) Animal surveillance and contingency planning

- a) The board of health shall monitor rabies positive animals in its health unit. This information shall be collected from animal test reports from the Canadian Food Inspection Agency (CFIA)⁵. The board of health shall monitor rabies positive animals in bordering health units to keep informed about potential rabies threats. This information shall be collected from the Ministry of Natural Resources' quarterly publication, the Rabies Reporter⁶. With respect to rabies positive animals, the board of health shall obtain information on:
 - i) The number of rabies positive animals;
 - ii) The type of animal; and
 - iii) The location of the animal, by county or district.
 The information shall be monitored over time.
- b) On the request of the ministry, the board of health shall develop and maintain a Rabies Contingency Plan within the timeline prescribed by the ministry. The ministry will provide a situation-specific template to the board of health at the time of the request.

2) Management of suspected rabies exposures

Notification

- a) Section 2(1) of Regulation 557 (Communicable Diseases-General) under the HPPA states that "a physician, registered nurse in the extended class, veterinarian, police officer, or any other person who has information concerning any animal bite or other animal contact that may result in rabies in persons shall as soon as possible notify the medical officer of health and provide the medical officer of health with the information"⁷.

The board of health shall communicate the reporting/notification process outlined in Section 2(1) of Regulation 557 under the HPPA in writing annually to physicians⁷, veterinarians, police officers, and nurses in the extended class (i.e., nurse practitioners). The reporting/notification process must allow for and provide an on-call system for receiving and responding on a 24 hours per day, 7 days a week (24/7) basis to any suspected rabies exposures.

Investigation

- b) The board of health shall have a written procedure for the investigation of human exposures to animals suspected of having rabies, as follows:
 - i) The board of health shall, upon receiving notification of a suspected rabies exposure, initiate investigation of the incident within 24 hours of the notification.

ii) The board of health shall collect data from the investigation of an individual exposed to an animal suspected of having rabies. The data shall include information pertaining to:

- Person exposed:
 - Name, sex, date of birth, age, weight;
 - Address and telephone number;
 - Has the person been examined by a physician;
 - Name of physician; and,
 - Rabies immunization status, date of last immunization, type of vaccine used (human diploid vaccine, purified chick embryo cell vaccine, or other).

In situations where the investigation and risk assessment lead to a recommendation for the administration of PEP, it should also be determined whether the person exposed is immunocompromised. Refer to Part 3 of the *Canadian Immunization Guide*⁸ for an overview of which individuals are considered immunocompromised.

- Exposure incident:
 - Date of exposure to the suspect rabid animal;
 - Animal species involved in the exposure;
 - Geographical location of the exposure incident;
 - Type of exposure (i.e., bite, non-bite, bat);
 - The anatomical location of the exposure;
 - Exposure circumstances (i.e., was the exposure provoked or unprovoked); and
 - Animal behaviour (i.e., was behaviour normal or abnormal).
- Animal owner (if owned):
 - Name, sex, date of birth; and
 - Address and telephone number.
- Animal:
 - Species and description (animal breed, colour, markings, size/weight);
 - Name of animal (if animal has a name);
 - Age of animal;
 - Origin of animal (e.g., acquired from breeder, shelter/rescue, pet store, internet purchase, etc.);
 - Length of time the animal has been in the care of the present owner;
 - Presence/evidence of any recent wounds or scars that would suggest the animal has itself been recently bitten;
 - Animal's travel history within the province and outside of the province;
 - Previous contact with wild animals or potential for such (e.g., animal allowed to roam unsupervised or out of sight, bats found in the house, etc.);
 - Previous contact with other domestic animals of unknown rabies immunization status (e.g., in dog parks, etc.)
 - Rabies immunization status of the animal or the animal's mother, if the animal is a puppy or kitten younger than three months of age; and

- Rabies immunization status of other animals residing with the suspected rabid animal.

Risk assessment

- c) The board of health shall conduct a risk assessment that shall be completed on all individuals with suspected rabies exposures to determine the required actions. The conclusion of the risk assessment shall be provided to the attending physician. The attending physician ultimately makes the decision to provide PEP.

The risk assessment shall include:

- i) Type of exposure (i.e., bite, non-bite, bat);
- ii) The anatomical location of the exposure;
- iii) The risk of rabies in the animal species involved;
- iv) The presence of rabies in the area where the incident occurred;
- v) Risk of rabies exposure in the implicated animal (travel history, exposure to wildlife/other domestic animals of unknown rabies status, etc.)
- vi) The behaviour and health status of the implicated animal;
- vii) Exposure circumstances (i.e., provoked or unprovoked exposure); and
- viii) Rabies immunization status of the animal or the animal's mother, if the animal is a puppy or kitten younger than three months of age.

In situations where the risk assessment leads to a recommendation for the administration of PEP, information on the rabies immunization status of the human should also be collected in order to inform appropriate PEP dose and schedule recommendations.

Animal management

- d) The board of health shall ensure that when a dog, cat, or ferret requires a 10-day observation period, the animal is confined and isolated from all animals and persons (except the person caring for the dog, cat, or ferret) for at least 10 days from the date of exposure (day zero) in accordance with section 3(2) of Regulation 557 under the HPPA⁷.

The potential for observation periods for other domestic animals (i.e., livestock) should be determined on a case-by-case basis.

- e) The board of health shall check the vaccine status of any animal involved in a human exposure incident. The boards of health that are listed in Regulation 567 (Rabies Immunization) under the HPPA⁹, shall ensure that animals identified as not being up to date on their rabies vaccination status are vaccinated for rabies after the observation period is completed. Animals over 3 months of age should be brought up to date on their rabies vaccinations within 14 days of the completion of the observation period. Animals under 3 months of age at the time of an exposure should be vaccinated for rabies by the time they are 3.5 months of age.

- f) The board of health shall notify and furnish particulars to the nearest district veterinarian of the CFIA[†] and the ministry's public health veterinarian as soon as possible, where the board of health has reason to believe that an animal is rabid or has been in contact with another animal known or suspected of having rabies.

Vaccine management

- g) The board of health shall follow vaccination handling guidelines as outlined in the *Vaccine Storage and Handling Protocol, 2008*¹⁰ (or as current).
- h) If a board of health provides rabies vaccine and rabies immune globulin (RabIg) on a contingency basis to institutions, then the board of health shall arrange annually with those institutions to notify the board of health within one business day of beginning a course of rabies PEP with vaccine and RabIg in order for the board of health to meet its requirements as per section p) below..

Rabies prophylaxis administration

- i) The board of health shall ensure individuals requiring treatment have access to rabies PEP within 24 hours after the decision is made that PEP is required.
- j) PEP should be started as soon as possible after exposure and should be offered to exposed individuals regardless of the elapsed interval.
- k) Based on a risk assessment, and where the animal specimen is received at the lab within 48 hours of exposure, treatment may be withheld until the Fluorescent Antibody Test (FAT) result is available. The FAT report can be obtained within six to 24 hours of receipt of an animal specimen at the laboratory.
- l) If the suspect animal is a cat, dog, or ferret and is available for observation, then immunization of the human may be withheld pending the animal's status during the 10-day observation period. If the animal shows signs of rabies during the observation period, PEP should be initiated. If the animal rabies test results are negative, then PEP can be discontinued.
- m) Incubation periods of less than one week have been reported after severe bites on the face, head, and neck. For bite wounds to the head and neck region, prophylaxis should generally begin immediately and not be delayed for laboratory testing or the observation period (for this situation, the board of health shall deliver the post-exposure treatment to the health care facility immediately. That is, sooner than the 24 hour period identified in 2)i). Considerations that may support delaying initiation of prophylaxis and instead observing the animal for a 10-day period include:
- If the animal is a domestic pet;
 - If the animal is fully vaccinated;

[†] These veterinarians are familiar with the regulations concerning rabies and, if necessary, will collect and ship appropriate specimens to a federal laboratory for diagnosis. Further information and advice is obtainable from the CFIA regional offices or local district office on the CFIA website (<http://www.inspection.gc.ca/english/anima/heasan/offbure.shtml>) or by consulting the blue pages of the local telephone directory.

- If the bite was provoked; and
 - If there is very low prevalence of rabies in the area.
- n) The vaccine series may be discontinued after consultation with public health/infectious disease experts if the FAT of the brain of an animal killed at the time of attack is negative.
- o) If a rabies exposure is considered likely, such as exposure to a dog in a country with endemic canine rabies, then PEP should never be delayed.

Reporting

- p) The board of health shall report data for individuals receiving PEP as specified in the integrated Public Health Information System (iPHIS) or any other method specified by the ministry, and shall comply with the minimum data elements identified in:
- i) Regulation 569 (Reports) under the HPPA¹¹;
 - ii) Disease specific user guides published by the Ontario Agency for Health Protection and Promotion (herein referred to as Public Health Ontario (PHO)); and
 - iii) Bulletins and directives issued by PHO.

The data shall be entered into iPHIS or any other method specified by the ministry within five business days after the initiation of the post-exposure treatment.

3) Human case management

- a) The board of health, upon receiving a report of a suspect or confirmed human case of rabies, shall immediately report to the ministry. The notification shall be made verbally. In addition, data pertaining to the case shall be reported in iPHIS or any other method specified by the ministry within one business day of notification.

References

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