Ontario

August 21, 2025

Rabies Vaccine and Rabies Immune Globulin (RabIg) – Interim Sparing Guidelines for Ontario

1.0 Purpose

This interim guidance outlines strategies for the judicious use of rabies vaccine and rabies immune globulin (RabIg) in situations where post-exposure prophylaxis (PEP) has been recommended. These approaches may support effective public health decision making, particularly in circumstances where supply is limited.

Rabies vaccine and RabIg should be used judiciously. In cases where the attending physician's risk assessment differs from that of the public health unit, efforts should be made to reach agreement. During supply interruptions, the strategies outlined in this document may help inform decisions around PEP.

In all cases of potential rabies exposure, treatment of any wounds (thorough cleaning, flushing, antibiotics, analgesics, tetanus vaccination, etc.) should follow normal protocols as outlined in the *Rabies vaccines: Canadian Immunization Guide*.[1]

Please refer to *Vaccine Storage and Handling Protocol* for additional guidance on best practices for maintaining cold chain and reducing vaccine and immunoglobulin wastage.[2]

2.0 Rabies Vaccine-Sparing Strategies

The following strategies may be considered in the event of rabies vaccine supply shortage.

2.1 Prioritization of vaccine supply

Ensure rabies vaccine is administered in alignment with the *Rabies vaccines: Canadian Immunization Guide*.[1]

- Conduct a careful risk assessment before offering PEP.
- Take into account the type of exposure (e.g., bite vs. non-bite), the species involved, and the likelihood that the animal was infected with rabies at the time of the incident.[1]
- Consider deferring or withholding PEP for lower risk exposure incidents (e.g., no known direct contact, instances where the implicated animal can be located for observation, and where the implicated animal is available for testing and results are anticipated within 48 hours).

2.2 Interchangeability of rabies vaccine products

Ideally, all efforts should be made to complete the rabies vaccine series with the same product. However, in the context of vaccine shortage, the two rabies vaccine products available in Ontario (RABAVERT and IMOVAX) may be used interchangeably

2.3 Delaying the fourth dose of the rabies vaccine schedule

For immunocompetent individuals receiving PEP via the intramuscular (IM) route, the WHO approved rabies vaccine schedule indicates administering the fourth dose between day 14 and day 28. Although the Canadian Immunization Guide (CIG) recommends a rabies vaccine schedule of days 0, 3, 7 and 14, consider delaying the fourth dose from day 14 **up to day 28**, in accordance with WHO approved rabies vaccine schedule.[1] This may help with short-term supply challenges and allow time for replenishment of vaccine supply.

2.4 Use of intradermal (ID) route

The World Health Organisation (WHO) recognizes the two-site intradermal (ID) regimen as an acceptable alternative to one-site intramuscular (IM) administration, as it uses a smaller volume of vaccine (0.1ml per site) while providing comparable protection against rabies.[3] As per the CIG, the ID route for rabies vaccine administration is recommended for pre-exposure prophylaxis (PrEP) but is considered off-label use. Offering rabies vaccine via the ID route for PEP should be considered alongside the following feasibility considerations:

- Availability of supplies required for ID route administration.
- Healthcare providers must be adequately trained on the two-site ID regimen (given as 0.1mL per site (totally of 0.2mL) on days 0, 3 and 7) and ID administration technique.
    - If improper technique is used, there is a risk of medical errors, such as inadvertent subcutaneous injection or suboptimal dose of vaccine administered.
- Although the ID route requires less volume of vaccine than the IM route, opened vaccine vials must be discarded if remaining contents are not used within 6-8 hours of opening.
    - If patient appointments cannot be scheduled on same day and at the same location, then there will be limited savings in the volume of vaccine used due to vaccine wastage.

---

[1] Canadian Immunization Guide. Part 4: Immunizing agents Rabies vaccine. Access August 14, 2025 from: https://www.canada.ca/en/public-health/services/publications/healthy-living/canadian-immunization-guide-part-4-active-vaccines/page-18-rabies-vaccine.html

- Consider recommending serology 7-14 days after the vaccine series is completed if PEP is administered via the ID route.[4]

3.0 RabIg-Sparing Strategies

The following strategies may be considered in the event of rabies immune globulin (RabIg) supply shortage.

3.1 Delay of administration of RabIg

In individuals who have not previously received rabies vaccines, ideally RabIg is administered at the initiation of the vaccine series (on day 0). However, RabIg can be administered up to and including day 7 after vaccine is initiated but not after that time.[1] Every effort should be made to administer doses on time, and administration of vaccine should not be delayed. Rather than delaying both, consider delaying RabIg up to day 7 of initiation of vaccine series, if feasible. This may help with short-term supply challenges and allow time for replenishment of RabIg supply.

3.2 RabIg-sparing PEP regimens

The WHO recommendations for PEP regimens depend on the type of exposure, defined as category I, II or III exposures.[5] The CIG does not mirror these categories of exposures and PEP recommendations.

- For category I exposures (e.g. no exposure, such as touching or feeding animals, licks on intact skin), WHO does not recommend PEP.
- For category II exposures (e.g. exposure, such as minor scratches or abrasions without bleeding, not involving a bat), vaccination is recommended (not RabIg).
- For category III exposures (e.g. severe exposure, such as transdermal bites/scratches, contamination of mucous membranes or broken skin with saliva from animal, direct contact with bats), both vaccination and RabIg are recommended.

For incidents where PEP is offered for exposures that align with category I or II exposures, consider administering PEP without RIG.

3.2 RabIg dose-sparing considerations

The recommended dose of RabIg is 20IU/kg body weight. When administering the total volume of RabIg, the CIG recommends that as much as possible is injected into the wound site, and the remainder should be administered intramuscularly at a site distant to the wound (and distant to the vaccine site). The World Health Organization (WHO) recommends injecting as much RabIg as possible at the wound site but no longer recommends administrating the remainder of the calculated RabIg.[5] If supply of RabIg is limited, every effort to ensure a full dose of RabIg is administered should be prioritized for

high risk cases (e.g. cases with multiple wounds, deep wounds, bites to head, neck and hands, immunocompromised individuals, exposure to animal species with confirmed or probable rabies, and any bat exposure).[5]

3.3 General approaches to avoid RabIg wastage

- Draw up one vial at a time in order to save any unopened vials that you don't use.
- Infiltration of wounds with RabIg in some small anatomical sites (fingertips) must be carried out with care in order to avoid compartment syndrome. In such instances, consider using the higher concentration RabIg product to reduce volume needed for the correct dose to administer (HyperRAB is 300IU/mL and KamRAB is 150IU/mL).
- When more than one wound exists, each wound should be locally infiltrated with a portion of the RabIg using a separate needle and syringe. In such instances, the RabIg can be diluted in a diluent permitted by the specific product labelling to provide the full amount of RabIg required for thorough infiltration of all wounds.[3]
- When there is no wound site, WHO guidance recommends filtrating as much RabIg as possible into the exposure site(s). With no visible wounds or known exposure sites, BCCDC provides guidance on administration of RabIg specific to age.[5,6,7]

4.0 References

1. Public Health Agency of Canada; National Advisory Committee on Immunization. Canadian Immunization Guide. Part 4: Immunizing agents Rabies vaccine. [cited 2025 August 14]. Available from: https://www.canada.ca/en/public-health/services/publications/healthy-living/canadian-immunization-guide-part-4-active-vaccines/page-18-rabies-vaccine.html
2. Ontario. Ministry of Health and Long-Term Care. Vaccine Storage and Handling Protocol, 2018. Toronto, ON: Queen's Printer for Ontario: 2018. [cited 2025 August 14]. Available from: https://files.ontario.ca/moh-vaccine-storage-handling-protocol-en-2018.pdf
3. World Health Organization. Weekly Epidemiological Record, 20 April 2018, vol. 93, 16 (pp. 201-220) Rabies vaccines: WHO position paper – April 2018. WHO Strategic Advisory Group of Experts (SAGE) on immunization. [cited 2025 August 14]. Available from: https://www.who.int/publications/i/item/who-wer9316
4. BC Centre for Disease Control. Communicable Disease Control Chapter 1 – Management of Specific Diseases Rabies. [cited 2025 August 19] Available from: http://www.bccdc.ca/resource-gallery/Documents/Guidelines%20and%20Forms/Guidelines%20and%20Manuals/Epid/CD%20Manual/Chapter%201%20-%20CDC/Rabies_Guidelines.pdf

5. World Health Organization. WHO Expert Consultation on Rabies. [cited 2025August 19] Available from: https://iris.who.int/bitstream/handle/10665/272364/9789241210218-eng.pdf?ua=1
6. BC Centre for Disease Control. Human rabies Immune Globulin (RabIg). [cited 2025 August 19]. Available from: http://www.bccdc.ca/resource-gallery/Documents/Guidelines%20and%20Forms/Guidelines%20and%20Manuals/Epid/CD%20Manual/Chapter%201%20-%20CDC/Rabies_Guidelines.pdf
7. BC Centre for Disease Control. Immune Globulin Preparations (HBIg, Ig, Tig, VarIg, RabIg). [cited 025 August 19]. Available from http://www.bccdc.ca/resource-gallery/Documents/Guidelines%20and%20Forms/Guidelines%20and%20Manuals/Epid/CD%20Manual/Chapter%202%20-%20Imms/Part4/IgPreparations.pdf