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Interim Direction for the use of rabies vaccine for post exposure prophylaxis in BC

Developed by BCCDC, BC MHOs and PHO

Rationale

1. There has been a marked increase in case indications for Rabies Post Exposure Prophylaxis (RPEP) since the human case in July 2019.
2. As a result of increased public awareness, demand for both rabies vaccine and immune globulin have been significant. Although the province has procured additional doses to meet the demand, the national supply of rabies vaccine is limited, and is now at a critical low.
3. Demand for vaccine is expected to remain seasonally high for the foreseeable future
4. There is evidence to suggest that intradermal (ID) administration is not only dose sparing but is equi-effacious to or higher than that administered intramuscularly (IM) (1). WHO recommends ID administration for RPEP, including those who are immunocompromised or are taking chloroquine or hydroxychloroquine drugs (2).
5. There is a critical need to implement dose-sparing ID administration in the state of minimum vaccine availability.
6. BCCDC is endeavouring to secure additional vaccine supply.

Use of the rabies vaccine

1. ID only administration is PREFERENTIALLY RECOMMENDED to optimize the use of the vaccine, including ED-initiation of the ID series (see table below)
2. IM administration is discouraged except in extenuating circumstances as determined by MHO
3. If the patient has initiated the IM series (in ER for example), complete the series ID on Days 3, 6, 10.
4. ID administration should occur in as few locations as possible in each health authority to maximize the utility of each vaccine vial
5. See attached document from WHO guidelines for details on ID administration technique
6. ID technique can also be seen here: https://www.youtube.com/watch?v=f3w-MlDAdg0

Patient	Day 0	Day 3	Day 7
Immunocompetent	Two-site 0.1 mL ID (total 0.2mL)	Two-site 0.1 mL ID (total 0.2mL)	Two-site 0.1 mL ID (total 0.2mL)
Immunocompromised*	Four-site 0.1mL ID (total 0.4mL)	Four-site 0.1mL ID (total 0.4mL)	Four-site 0.1mL ID (total 0.4mL)
Previously immunized	One-site 0.1mL ID	One-site 0.1mL ID	-

*also includes those individuals on chloroquine or hydroxychloroquine

Use of rabies immunoglobulin

Recommendations for the use of rabies immunoglobulin have not changed since the last update on July 19th and should follow interim BC guidelines (3)

Pharmacy best practices:

- Reconstitute lyophilized vaccine only with the product-provided diluent
- Reconstituted vaccine yields 1 mL, single use vial (no preservative)
- Stamp the date and time of reconstitution (first puncture) on the vial
- Maintain reconstituted vaccine under refrigeration at all times: +2°C to +8°C
- Use aseptic techniques to reconstitute and draw up doses from the original (reconstituted) vial
- Preloading syringes is not recommended as there is no information on product sterility or stability in a different vehicle other than the product vial
- Do not transfer reconstituted vaccine between sites; use restricted to same-site use
- Discard any remaining, unused volume after 6 hours
- Complete the vaccine series where possible with the same product. Rabies vaccine products are considered interchangeable – see use: http://www.bccdc.ca/resource-gallery/Documents/Guidelines%20and%20Forms/Guidelines%20and%20Manuals/Epid/CD%20Manual/Chapter%202%20-%20Imms/Part4/RabiesPost-Exposure.pdf.

References

1. **World Health Organization.** Weekly Epidemiological Record. [Online] 04 20, 2018. https://apps.who.int/iris/bitstream/handle/10665/272371/WER9316.pdf?ua=1.

2. —. *WHO Expert Consultation on Rabies.* [Online] 2018. https://apps.who.int/iris/bitstream/handle/10665/272364/9789241210218-eng.pdf

3. **BCCDC.** Communicable Disease Manual. Chapter 1 Management of Specific Diseases: Rabies. [Online] http://www.bccdc.ca/resource-gallery/Documents/Guidelines%20and%20Forms/Guidelines%20and%20Manuals/Epid/CD%20Manual/Chapter%201%20-%20CDC/BCRabiesGuidelines.pdf.