

NUNAVIK PUBLIC HEALTH NEWSLETTER

Overpopulation of Arctic foxes in Nunavik

Written by:

Manon Lefebvre, Advisor Jean-Sébastien Touchette, Medical Consultant Yassen Tcholakov, Clinical Head Infectious diseases team

Background:

While a cyclical overpopulation of Arctic foxes is usually documented every 4 to 5 years, Nunavik is experiencing an exceptional overpopulation of the mammal this year. This overrepresentation is partially explained by an abundance of food (in the form of prey such as ptarmigan and rodents). Some municipalities are even impacted by groups of Arctic foxes in and around villages.

The situation is concerning, particularly given that the Arctic fox is known to be a major vector for rabies. Foxes and dogs have been regularly testing positive for rabies and the region has long been deemed at high risk for the rabies. Interactions between foxes and dogs constitute a known risk to human health.

Key facts about rabies:

Rabies is a contagious and fatal disease. It is caused by a virus that attacks the nervous system of mammals, including that of humans. Rabies is one of the most serious communicable diseases touching humans, given that it is fatal once the first symptoms appear.

Not all contacts with a rabid anima automatically constitute an exposure to risk.

The rabies virus can be present in an infected animal's saliva, CSF or nervous tissues. And while a bite is the most prevalent means of transmission, the disease can also be propagated through a scratch or contact with mucous membranes or an open wound.

Evaluation and monitoring/care:

(The information in this section is not meant to serve as a recommendation; please refer to the provincial tools noted below.)

There is currently no recognized treatment for rabies once the disease is detected. It is thus extremely important to administer a preventive treatment as quickly as possible. It is therefore essential to carry out a rigorous assessment of any person who has been at risk of exposure.

Preventive treatment of rabies is as follows:

- Wound care: Cleaning of the wound with running water and soap for 10 to 15 minutes, then application of a virucidal
 agent. Thoroughly cleaning the wound can potentially decrease the risk of developing the disease by 90% and should thus
 not be overlooked.
- Post-exposure prophylaxis: Administration of Rablg/ RIg (rabies immune globulin) and the recommended doses of rabies vaccine. It is critical to check the Québec Immunization Program (PIQ) for specific factors to consider when determining the number of vaccine doses to administer (e.g., immunosuppressed individuals) and information on handling cases of persons who received a prophylaxis prior to being exposed.

It is also important to check a person's vaccination status with regard to tetanus and take any recommended measures, as the case may be.

The reference tools available in Québec with regard to the evaluation and follow-up/care of persons exposed are noted in the Aide à la décision – Gestion des expositions à risque de rage (French only) (https://www.msss.gouv.qc.ca/professionnels/zoonoses/rage/aide-a-la-decision/) and the Québec Immunization Program (PIQ) (https://msss.gouv.qc.ca/professionnels/vaccination/protocole-d-immunisation-du-quebec-piq/) (French only). We strongly urge all clinicians to consult these tools when examining any case of exposure to risk involving a domestic or wild animal.

- **If the animal is available, it is important to advise its owner to not kill it; if alive, its behaviour can be observed as per the relevant recommendations in the reference tools.
- **It is essential to check whether any other persons could have been exposed to the animal in question.
- **All immunoglobins and vaccines administered must be logged in the provincial SI-PMI register.

Vaccination of at-risk workers:

Workers with a risk of being exposed to rabies (persons who vaccinate dogs, dog catchers, etc. under the PIQ class that includes veterinarians and their assistants working in rabies enzootic regions) can receive a pre-exposure prophylaxis. Employers must bear the cost of pre-exposure vaccination, as it is not offered free of charge.

The Public Health physicians, advisors and nursing advisors provide support in assessment and management, as required, especially for complex situations.

- E-mail: <u>mado-declarations.rr17@ssss.gouv.qc.ca</u> OR
- Fax: 1 866 867-8026.

Nights, weekends and holidays: the Public Health infectious diseases physician on call can be reached by phone at 1 855 964-2244 or 1 819 299-2990.

> These contact details are solely for health professionals and may not be shared with the public.