

Workplace exposure to rabies

Occupations identified as high risk for rabies exposure and infection include veterinarians, animal control workers, rabies diagnostic lab workers, spelunkers exploring caves, bat biologists and other wildlife biologists, pest control workers, and workers traveling to countries endemic for canine-mediated rabies. While transmission to health care workers caring for a patient infected with rabies has not been documented, theoretically transmission could occur through direct contact of broken skin or mucosa with saliva, tears, oropharyngeal secretions, cerebrospinal fluid, or neural tissue of an infected individual. Rabies is a reportable disease under the Canada Food Inspection Agency (CFIA) Health of Animals Act.¹

Causes

Rabies is a rare zoonotic disease caused by a Lyssavirus of the Rhabdoviridae family. In Canada, the disease is usually found in wild animals such as raccoons, skunks, bats, and foxes. Domesticated animals can become infected if they are bitten by an animal with rabies or come in contact with its saliva. Canine rabies remains endemic in many countries. Globally, dog bites provide the greatest risk of rabies transmission.²⁻⁵ In BC, bats are the only known reservoirs for the rabies virus.²

The rabies virus is carried in the saliva and neural tissue of an infected animal and can be transmitted to humans via the animal's bite or scratch, or through an individual's open wounds or mucus membranes. While very rare, transmission via nonbite routes, such as airborne transmission from bat secretions⁶ or direct human-to-human transmission through organ transplants⁷ has been reported.

Disease progression

The incubation period is usually 3 to 8 weeks, although rarely can be as short as a few days to as long as several years.² After an initial period of nonspecific symptoms such as fever, malaise, or anxiety, frank neurological signs ranging from hyperactivity (encephalitis) to paralysis appear before the person lapses into a coma. Death typically occurs within 10 days from the onset of symptoms.²

Prevention

For workers in occupations that are high risk for rabies infection, pre-exposure prophylaxis with rabies vaccine is recommended, followed by a booster dose in the event of exposure.^{2,6}

For health care workers, routine precautions, including wearing gowns, goggles, masks, and gloves, are recommended when providing care to persons suspected of having clinical rabies.⁸ In the event of an exposure, public health officials follow specific criteria to identify high-risk contacts and provide postexposure prophylaxis.^{2,3}

Workers should seek immediate medical attention if they suspect they have been exposed to rabies. In BC, any worker who has had direct contact with a bat should seek medical attention, and the attending physician should call the local public health authority for guidance. Public health will conduct a risk assessment to determine whether rabies postexposure prophylaxis is indicated.

Treatment

Postexposure prophylaxis for rabies includes thorough wound washing, a series of rabies vaccines, and where indicated, rabies immunoglobulin (RIG). Given promptly,² rabies post-exposure prophylaxis is effective.³

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When a worker is exposed to a bite or scratch of an infected source, rabies immunoglobulin is used to infiltrate the wound, or to infiltrate the exposed area when a bite or scratch cannot be ruled out. BC Centre for Disease Control has released new interim guidelines on postexposure prophylaxis and rabies immunoglobulin.^{2,9} Tetanus-diphtheria vaccine should also be updated as required.

If your patient suspects they have been exposed to rabies at work, encourage them to file a claim with WorkSafeBC. Providing all the relevant clinical information on a Form 8/11 is important to help your patient with their claim.

For assistance

If you have questions about a workplace rabies exposure or claim, please contact a medical advisor in Occupational Disease Services at 604 231-8842 or in your nearest WorkSafeBC office, or call the Medical Advisor Hotline at 1 855 476-3049. ■

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This article is the opinion of WorkSafeBC and has not been peer reviewed by the BCMJ Editorial Board.

CME calendar

Rates: \$75 for up to 1000 characters (maximum), plus GST per month; there is no partial rate. If the course or event is over before an issue of the *BCMJ* comes out, there is no discount. **Deadlines:** ONLINE: Every Thursday (listings are posted every Friday). PRINT: The first of the month 1 month prior to the issue in which you want your notice to appear, e.g., 1 February for the March issue. The *BCMJ* is distributed by second-class mail in the second week of each month except January and August. **Planning your CME listing:** Advertising your CME event several months in advance can help improve attendance; we suggest that your ad be posted 2 to 4 months prior to the event. **Ordering:** Place your ad at www.bcmj.org/cme-advertising. You will be invoiced upon publication. Payment is accepted by Visa or MasterCard on our secure online payment site.

CME ON THE RUN

VGH and various videoconference locations, 31 Jan–5 Jun (Fri)

CME on the Run sessions are held at the Paetzold Lecture Theatre, Vancouver General Hospital and there are opportunities to participate via videoconference from various hospital sites. Each program runs on Friday afternoons from 1–5 p.m. and includes great speakers and learning materials. Dates and topics: 31 Jan (Psychiatry). Topics include: Bipolar II update on treatment; When too much wine becomes a problem; Adult ADD diagnosis and management; Where are we with benzodiazepines? The good, the bad, and the ugly; Sleeplessness beyond the sedatives; Smoking addiction: How can we do better?; Adjunctive therapies for depression; Counseling on cannabis and the implications on the developing brain. The next sessions are: 3 Apr (infectious disease and travel); 1 May (prenatal, pediatric, and adolescents); 5 Jun (internal medicine). To register and for more information visit ubccpd.ca, call 604 675-3777 or e-mail cpd.info@ubc.ca.

GP IN ONCOLOGY TRAINING

Vancouver, 3–14 Feb (Mon–Fri)

The BC Cancer's Family Practice Oncology Network offers an 8-week General Practitioner in Oncology training program beginning with a 2-week introductory session every spring and fall at the Vancouver Centre. This program provides an opportunity for rural family physicians, with the support of their community, to strengthen their oncology skills so that they may provide enhanced care for local cancer patients and their families. Following the introductory session, participants complete a further 30 days of customized clinic experience at the

cancer center where their patients are referred. These can be scheduled flexibly over 6 months. Participants who complete the program are eligible for credits from the College of Family Physicians of Canada. Those who are REAP-eligible receive a stipend and expense coverage through UBC's Enhanced Skills Program. For more information or to apply, visit www.fpon.ca, or contact Jennifer Wolfe at 604 219-9579.

MINDFULNESS IN MEDICINE WORKSHOPS AND RETREATS

Cortes Island, 24–29 May (Sun–Fri)

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Physician Meditation Retreat, 24–29 May, Hollyhock, Cortes Island. Physician Heal Thyself workshops focus on the theory and practice of mindfulness and meditation—reviewing definitions, clinical evidence, and neuroscience, and introducing key practices of self-compassion, breath work, and sitting meditation to nurture resilience and healing. This annual meditation retreat is an opportunity to delve deeply into meditation practice in order to recharge, heal, and build a practice for life. Each workshop is accredited for 16 Mainpro+ group learning credits and has a 30 person limit, so please register today! Contact us at hello@livingthismoment.ca, or check out www.livingthismoment.ca/event for more information.

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