



Overview/description

***Echinococcus*, a Multi-Faceted Issue: What Canadian Veterinary Teams Need to Know**

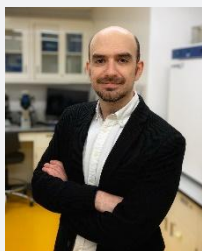
In this webcast, Canadian parasitology experts **Dr. Emily Jenkins** and **Dr. Christopher Fernandez Prada** address the critical issue of *Echinococcus multilocularis* in Canada. They will provide a comprehensive overview of the parasite's life cycle, along with the latest insights into diagnosing and identifying risk factors affecting pets and humans. They will also discuss effective prevention strategies through case examples and offer a clearer perspective on the ongoing debate surrounding praziquantel resistance.

Speakers' bio and credentials



Emily Jenkins, PhD, DVM, BSc (Hons)

Dr. Emily Jenkins is Professor and Graduate Chair in the Department of Veterinary Microbiology, and head of the Zoonotic Parasite Research Unit at the Western College of Veterinary Medicine at the University of Saskatchewan in Saskatoon, Canada. She has taught veterinary parasitology for over two decades. Her research takes a One Health approach to parasites transmitted among animals and people via food, water, vectors, and the environment. She co-leads the University of Saskatchewan One Health Signature Area, serves as a Canadian representative to the Terrestrial Working Group of the International Arctic Science Committee, and as Western Canadian representative on the Canadian Parasitology Expert Panel.



Christopher Fernandez Prada, DVM, MSc, PhD

Dr. Christopher Fernandez Prada is an Associate Professor in the Department of Pathology and Microbiology at the Faculty of Veterinary Medicine at the University of Montréal, and director of the Animal Parasitology Diagnostic Lab. His research focuses on drug resistance and host-parasite interactions, emphasizing extracellular vesicles in protozoan infections through a One Health approach. He has received multiple awards, including the CIHR Bhagirath Singh Early Career Award (2021), the Zoetis Excellence in Research Award (2023), the Vetoquinol Award for Excellence in Graduate Research Supervision (2024), and recognition among Québec Science's Top 10 Scientific Discoveries of 2022. His work is supported by the CIHR, NSERC, CFI, FRQNT, and J.-Louis Lévesque Foundation. Dr. Fernandez Prada also contributes to the Canadian Network in NTDs steering committee, and he is the Quebec representative on the Canadian Parasitology Expert Panel.



Questionnaire

- 1. The lab reports “taeniid eggs” on a routine annual fecal flotation from an otherwise healthy adult dog. What are these?**
 - Echinococcus canadensis
 - E. multilocularis
 - Taenia pisiformis
 - Any of the above
- 2. What test should you request as a follow-up?**
 - Another fecal flotation
 - Fecal sedimentation
 - coproPCR
 - Abdominal ultrasound
- 3. The lab reports that the sample has tested positive for *Echinococcus spp.* What are your next steps?**
 - No action required; these parasites cause no clinical signs in dogs
 - Treat the dog
 - Treat the dog and prevent access to intermediate hosts
 - Treat the dog, prevent access to intermediate hosts and inform owner of zoonotic potential
- 4. What do dogs ingest to become infected with adult *E. multilocularis* tapeworms in their intestine?**
 - Canid feces
 - Cervid feces
 - Rodent feces
 - Rodents
- 5. What is the appropriate management of a dog at high risk of developing intestinal infection with *E. multilocularis*?**
 - Monthly treatment with adult cestocide
 - Monthly treatment with larval cestocide
 - Treatment with adult cestocide within 6 weeks of exposure
 - There is no pharmaceutical treatment



6. An owner contacts you because their dog passed a 10 cm long tapeworm, they googled it and now they are very worried about *Echinococcus*. What do you tell them?
- They should bring the dog in immediately
 - They should seek medical attention
 - They should treat the dog with an adult cestocide
 - They should consider what their dog may be eating
 - They should bring in the worm and/or a fecal sample
 - Last 3 answer choices
 - All of the above
7. You are doing a laparotomy to remove a sock from a Labradoodle and you see multiple white/yellow nodules in the liver. What are your next steps?
- Remove a piece of affected liver and fix it in formalin
 - Remove a piece of affected liver and keep it the fridge or freezer
 - Remove a piece of affected liver and fix it in ethanol
 - Immediately close this dog due to risk of echinococcosis
 - First 3 answer choices
 - All of the above
8. One of your boarders has developed diarrhea and you send a sample off for parasitology, fully expecting it to be *Giardia*. Unfortunately, you already started the dog on metronidazole. The lab results come back positive—for *E. multilocularis*. Your staff wants to know how to disinfect the kennel. What do you tell them?
- Spray it with the usual spray for exam tables
 - Spray it with the usual spray for exam tables and leave it for the recommended contact time
 - Remove as much organic matter as possible and clean with a 10% solution of the bleach you found under the kitchen sink
 - Remove as much organic matter as possible, clean with a 10% fresh bleach solution and leave for at least 20 minutes.
9. You have just diagnosed a dog with early *alveolar echinococcosis*. The owner wants to euthanize the dog due to fear for their family's health and concerns over surgical costs. What do you advise?
- Euthanasia is appropriate for public health considerations
 - Euthanasia is appropriate if surgery is not an option
 - Euthanasia is appropriate for welfare considerations
 - Euthanasia is not appropriate



10. What defines a high-risk dog for developing *alveolar echinococcosis* (caused by *E. multilocularis*)?

- History of coprophagia
- Off-leash access to the outdoors
- Contact with wildlife (coyotes and foxes)
- All of the above

PERSONAL INFORMATION:

First name:

Last name:

Type:

(Veterinarian, Technician)

Licence number:

Province where you practise:

Email:



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CERTIFICATE OF COMPLETION

Educational webcast

*Echinococcus, a Multi-Faceted Issue: What Canadian Veterinary Teams
Need to Know*

Presented by

Emily Jenkins, PhD, DVM, BSc (Hons)

Christopher Fernandez Prada, DMV, MSc, PhD

This document confirms that

Dr. Lorem Ipsum

has viewed the above-mentioned webcast and has answered and submitted the questionnaire meant to evaluate the understanding of the content.

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