2026
University of Toronto Microbiology & Infectious Disease Research Days

AGENDA
Main Programming Day, May 28

Room 3154, Medical Sciences Building, 1 King's College Circle

Presented by

UNIVERSITY OF TORONTO | EPIC Emerging & Pandemic Infections Consortium

In collaboration with

U of T's Division of Infectious Diseases, Department of Medicine, and postgraduate medical and clinical microbiology program, the Division of Infectious Diseases at The Hospital for Sick Children and the Institute of Health Emergencies and Pandemics.

With support from BIOMÉRIEUX

EPIC is a collaborative initiative between the University of Toronto and five hospital partners.

SickKids | Sinai Health | Lunenfeld-Tanenbaum Research Institute | Sunnybrook Research Institute | UNITY HEALTH TORONTO | UHN Canada's Hospital

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Abstract Booklet

May 27th - 28th, 2026

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In collaboration with U of T's Division of Infectious Diseases, Department of Medicine, and postgraduate medical and clinical microbiology program, the Division of Infectious Diseases at The Hospital for Sick Children and the Institute for Health Emergencies and Pandemics at the Dalla Lana School of Public Health.

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Poster 31

Leptospirosis Acquired by Recreational Freshwater Exposure: A Systematic Review

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Leptospirosis is a globally distributed zoonosis with potentially severe outcomes, increasingly associated with recreational freshwater exposures. Despite mounting recognition of transmission via activities such as swimming, rafting, and kayaking, a systematic evaluation of its epidemiological profile and global burden of has yet to be conducted.

A systematic review was conducted in accordance with PRISMA guidelines to identify and appraise studies describing leptospirosis acquired through recreational freshwater exposure. Comprehensive database searches were performed in PubMed, MEDLINE, Embase, and Scopus using controlled vocabulary and keyword strategies related to leptospirosis and leisure water activities. Additional grey literature was sourced via targeted searches in Google and Google Scholar. Eligible studies included those involving human participants with a confirmed diagnosis of leptospirosis and a clearly documented recreational freshwater exposure. Studies focused exclusively on occupational, flood-related, or animal-associated exposures were excluded. Title and abstract screening, followed by full-text review, was completed independently by a team of reviewers, with discrepancies resolved through consensus or third-party review.

A total of 1,535 records were identified after deduplication. After screening 805 titles and abstracts, 316 full texts were assessed for eligibility. 116 studies met inclusion criteria. Exclusions were primarily due to non-recreational exposure (n = 23), review-only format (n = 63), insufficient exposure detail (n = 58), non-human subjects (n = 43), or ineligible study design (n = 7). Data extraction is ongoing and will include study design, types of recreational activity, diagnostic methods, clinical manifestations, preventive or therapeutic intervention and outcomes.

This is the first systematic review to comprehensively examine leptospirosis linked to recreational freshwater exposure. By consolidating evidence across diverse activity types and regions, this review will support improved clinical recognition, pre-travel counseling, and public health prevention strategies.