

MEDICAL MANAGEMENT PLAN

Strongyloides stercoralis (Strongyloidiasis)

The following occupational health requirements must be followed to ensure the health and safety of researchers and laboratory personnel conducting research with parasitic worm, *Strongyloides stercoralis*.

If you have any questions, contact the Environmental Health & Safety (EH&S) Occupational Health Nurse at 206-685-1026, option 0.

This document covers actions required:

- Before the start of the research
- Ongoing during research
- In the event of an exposure
- In the event of symptom development

REQUIRED ACTIONS BEFORE STARTING RESEARCH

A. Notification to EH&S

The Principal Investigator (PI) or their designee must provide the following to the EH&S [Biosafety Officer](#):

1. A copy of the [Biological Use Authorization \(BUA\) Application](#).
2. A list of staff who will be working with *Strongyloides stercoralis* and their job duties.
3. An [Animal Use Medical Screening \(AUMS\) form](#) for all persons on the protocol, if working with animals, unfixed animal tissues or body fluids. Refer to the EH&S website for information about the AUMS form.

B. Hazard training provided by EH&S and PI

1. The PI and staff must complete the required Biosafety training; refer to the [Training webpage](#) on the EH&S website.
2. The PI must provide documentation that agent-specific hazard training was provided to personnel, including training on required personal protective equipment (PPE), emergency procedures, signs and symptoms of infection for the agent, and the necessary steps to take in the event of an exposure incident.

C. Health evaluation by the Employee Health Center

1. Personnel who are immune compromised, who will be conducting research with *Strongyloides stercoralis* must have a health consultation, to discuss

health conditions that may increase the individual's risk for lab-acquired illness and severe illness.

2. This health evaluation must be scheduled with the UW Employee Health Center (EHC) on the Seattle campus (206-685-1026) and completed prior to starting work.
3. The EHC will communicate to the PI when workplace modifications are necessary based on the health assessment. EH&S will assist with workplace modifications to mitigate exposure potential.

ONGOING OCCUPATIONAL HEALTH REQUIREMENTS

- A. Personnel should notify the EHC Occupational Health Nurse at 206.685.1026 if any health status changes occur, or if there are any questions.

Examples of health status changes include:

1. Symptom development consistent with *Strongyloides* exposure
2. Pregnancy
3. Development of chronic conditions
4. Development of an immune compromised status
5. Use of medications that suppress immunity

REQUIRED ACTIONS IF SPILL OCCURS ON THE FLOOR OR OTHER SURFACE

- A. Leave whatever spilled where it is; do not attempt to pick up until the area has been decontaminated.
- B. Inform others in the area about the spill to prevent further exposure.
- C. If necessary, attempt to contain spill with absorbent pads or paper towels around the perimeter.
- D. Apply ample Lugol's iodine (1% povidine iodine; 10,000 ppm) or 70-100% ethanol to the spill area. Start at perimeter and work your way toward the center of the spill.
- E. Carefully dispose of paper towel, plates that spilled, etc. as biohazardous waste
- F. Once all spilled material has been discarded, wipe the floor/surface again with Lugol's iodine or 70-100% ethanol.
- G. Apply 10% bleach to the floor/surface to remove the iodine stain. Do not use pure bleach as chemical reactions may ensue.

REQUIRED ACTIONS IN THE EVENT OF AN EXPOSURE

- A. Protect self and others

1. If mucous membranes exposure (eye or mouth), wash mouth out with water, **do not swallow**. Use emergency eyewash for eyes and flush for 15 minutes.
 2. If contact with skin, wash skin exposed to *Strongyloides* with Lugol's iodine or 70-100% ethanol. Then wash and rinse thoroughly with soap and water.
 3. If contact clothing, remove contaminated clothing using gloves and place objects in autoclave bags. Clothing is autoclaved and then laundered.
 4. Promptly notify the laboratory manager and PI.
- B. Obtain medical assistance
1. If you were exposed to *Strongyloides*, you will need a medical evaluation and follow up.
 2. If you are a student or employee, go to the UWMC ED.
 3. Inform UWMC ED provider of CDC recommended post exposure treatments and that this is time-dependent so you can get treated immediately.
 4. Treatment for *Strongyloides stercoralis*: Ivermectin, in a single oral dose, 200µg/kg on day of event, and day 2, then repeat 2 weeks later (days 14 and 15). (Note: ivermectin comes in 3 mg pills so most people get 12, 15 or 18mg per day depending on weight).
 5. Baseline blood test: *Strongyloides* Ab IgG - RSTR3G
<https://testguide.labmed.uw.edu/view/RSTRNG>
 6. Repeat blood test 2-3 months later: *Strongyloides* Ab IgG RSTR3G
 7. Within 20 minutes of the incident, or as soon as possible, call the EHC at 206-685-1026 between 8:00 a.m. to 5:00 p.m., Monday to Friday. Tell them you were exposed to *Strongyloides stercoralis*.
 8. For a life-threatening emergency, call 9-1-1.
- C. Other required notifications
1. During business hours, notify the EH&S Biosafety Officer at 206-221-7770.
 2. Complete a [UW Online Accident Report](#) (OARS) within 24 hours at www.ehs.washington.edu/workplace/accident-and-injury-reporting

SYMPTOM DEVELOPMENT

- A. The majority of people infected with *Strongyloides stercoralis* have little or no symptoms. Those who do develop symptoms often have non-specific or generalized illness. A rash can develop at the site of exposure. *Strongyloides stercoralis* can complete its entire life cycle in humans and infection can persist lifelong if untreated.
- B. Some people develop abdominal pain, bloating, heartburn, intermittent episodes of diarrhea and constipation, a dry cough and skin rashes. Eosinophilia may be present. Immunocompromised individuals can develop *Strongyloides hyperinfection*

syndrome which can be very severe and has a very high case fatality rate. Those with pre-existing HTLV infection may be at higher risk of severe infection.

- C. Report to your lab manager and PI if you have symptoms.
- D. Obtain medical assistance per section B above.

References:

CDC: Strongyloidiasis: <https://www.cdc.gov/dpdx/strongyloidiasis/index.html>

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