Disease: Trichinosis
Effective: February 2019
Trichinosis

1.0 Provincial Reporting
Confirmed and probable cases of disease

2.0 Type of Surveillance
Case-by-case

3.0 Case Classification

3.1 Confirmed Case
Laboratory confirmation of infection with clinically compatible signs and symptoms:
- Demonstration of *Trichinella* spp. in a muscle biopsy
  OR
- Positive serology

3.2 Probable Case
Clinically compatible signs and symptoms in a person with an epidemiologic link to a laboratory-confirmed case or to a confirmed food source (e.g., meat containing *Trichinella* larvae, by visual inspection or laboratory confirmation).

4.0 Laboratory Evidence

4.1 Laboratory Confirmation
Any of the following will constitute a confirmed case of trichinosis:
- Demonstration of *Trichinella* larvae in tissue obtained by muscle biopsy
  OR
- Positive serologic test for *Trichinella*

4.2 Approved/Validated Tests
- Microscopic examination of muscle biopsy pressed between 2 glass plates for *Trichinella* larvae
- Microscopic examination of enzyme digested biopsy material for *Trichinella* larvae
- Serological tests (i.e., enzyme immunoassay [EIA])

4.3 Indications and Limitations
- Presence of larvae in biopsies indicates definitive evidence of infection but microscopy is time consuming, especially in a mild infection, and a negative result is not conclusive.
- Only serum samples are suitable for serology. During acute trichinosis, serologic tests may be negative due to prolonged seroconversion. Serum antibody titres
rarely become positive before the second week of illness. Thus, convalescent serologic testing (~6-12 weeks following symptom onset) is recommended if acute serology is negative. Low reactive values on serologic assays may reflect: remote prior infection; false positivity due to cross-reactivity with other helminth infections; or, very low burden *Trichinella* infection.

- Skeletal muscle biopsy taken more than 10 days after infection (most often positive after the fourth or fifth week of infection) frequently provides conclusive evidence of infection

### 5.0 Clinical Evidence

The disease has variable clinical manifestations and may be asymptomatic in some cases. Common signs and symptoms among symptomatic persons include eosinophilia, fever, myalgia, and periorbital edema.

### 6.0 ICD 10 Code(s)

B75 Trichinellosis

### 7.0 Sources


### 8.0 Document History

Table 1: History of Revisions

<table>
<thead>
<tr>
<th>Revision Date</th>
<th>Document Section</th>
<th>Description of Revisions</th>
</tr>
</thead>
<tbody>
<tr>
<td>December 2014</td>
<td>General</td>
<td>New template.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Title of Section 8.0 changed from “References” to “Sources”.</td>
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<tr>
<td></td>
<td></td>
<td>Section 9.0 Document History added.</td>
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<tr>
<td>December 2014</td>
<td>3.1 Confirmed Case</td>
<td>Addition of “or without” in first sentence.</td>
</tr>
<tr>
<td>Revision Date</td>
<td>Document Section</td>
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<tr>
<td>December 2014</td>
<td>4.2 Approved/Validated Tests</td>
<td>In fourth (last) bullet, removal of “(i.e. complement fixation [CF])” and addition of “(i.e. enzyme immunoassay [EIA])”.</td>
</tr>
</tbody>
</table>
| December 2014 | 4.3 Indications and Limitations | In first bullet, removal of “…especially in a low infection…” and addition of “…especially in a mild infection…”  
Addition of third (last) bullet: “Skeletal muscle biopsy takes more than 10 days…” |
| December 2014 | 5.0 Clinical Evidence | Removal of prior first sentence “A disease caused by ingestion of *Trichinella* larvae”.  
Addition of the following at the end of current first sentence: “…and may be asymptomatic in some cases.” |
| December 2014 | 8.0 Sources | Updated. |
| February 2019 | General | Minor revisions were made to support the regulation change to Diseases of Public Health Significance. |