

Shigella Cases

Wetaskiwin, Ponoka, and Red Deer

Date: June 25, 2024

To: Wetaskiwin, Ponoka, and Red Deer Area Physicians and Emergency Departments

Cc: Central Zone: Chief Zone Officer and Medical Director, Communications, Medical Affairs, Environmental Public Health Director and Managers, Laboratory Director
Provincial: Medical Officers of Health (AHS and FNIHB)

From: Dr. Ifeoma Achebe, Lead Medical Officer of Health, Central Zone

We are seeing a higher-than-expected number of *Shigella* cases circulating in the Ponoka and Wetaskiwin area. Many of these cases are seeking care within those communities, or in Red Deer. Shigellosis is a bacterial infection that is highly contagious and can cause severe disease. The strain seen in Central Zone is *Shigella Flexneri*, which is similar to the strain implicated in an outbreak involving the vulnerable population in Edmonton.

Physicians are encouraged to have a high index of suspicion when dealing with patients presenting with the symptoms below.

Clinical Presentation

Very low doses of the organism produces disease in humans and the severity and case fatality rates are a function of the host. Disease is mostly characterized by:

- diarrhea (may contain blood and or mucus)^{1,2}
- fever
- abdominal cramps
- nausea

The illness can be self-limiting lasting between one day and one month with an average of seven days.

Transmission

The primary mode of transmission is through the fecal-oral route from an infected person. Improper hand hygiene, poor sanitary conditions, overcrowding, eating or contaminated food/water and sexual contact with infected have all been identified as transmission routes.

Diagnosis: Is made by the isolation of *Shigella* from feces or a rectal swab.

- Use the 60 ml sterile plastic container (orange top) to collect stool sample.
- Rectal swabs can be done when collection of stool sample is unattainable (see enclosed for instructions on how to collect a rectal swab).

Treatment

- Although some infections may be self limiting, treatment is recommended for most symptomatic patients. Use of antibiotics will shorten the period of fecal excretion of the infecting strain and will shorten the clinical course of disease often to a few days.

- Antibiotic resistance frequently develops after treatment.
 - **Please consult with an ID physician for guidance on antibiotic use.**
- Replace fluids and electrolytes if there is excessive fluid loss through diarrhea or vomiting.
- Antimotility agents are not recommended, as they may prolong the course of disease or play a role in the development of toxic dilation of the colon or perforation³.

Prevention

- Proper handwashing after washroom use, and before preparing or eating food.
- Ensure sanitary disposal or laundering of items contaminated with feces.
- Avoid handling food, or direct/sexual contact with others when ill with diarrhea.
- Perform personal hygiene, (for example showering) as possible.

For suspect clusters of cases, please notify the MOH on call on 403-356-6430.

Thank you for your attention and assistance in helping to prevent further spread of Shigella in Central Zone.

Enclosure

1. Heymann DL, editor. Control of Communicable Diseases Manual. 20th ed. Washington, DC: American Public Health Association; 2015.

2. American Academy of Pediatrics. Shigella infections. In: Kimberlin DW, Brady MT, Jackson MA, Long SS, editors. Red Book: 2015 Report of the Committee on Infectious Diseases. Elk Grove Village, IL: American Academy of Pediatrics; 2015. p. 706–9.

3. DuPont HL. Bacillary dysentery: Shigella and enteroinvasive Escherichia coli. In: Bennet JE, Dolin R, Blaser MJ, editors. Mandell, Douglas, and Bennett's Principles and practice of infectious diseases. Philadelphia, P.A.: Elsevier Saunders; 2015. p. 2569–74.

For more information, contact
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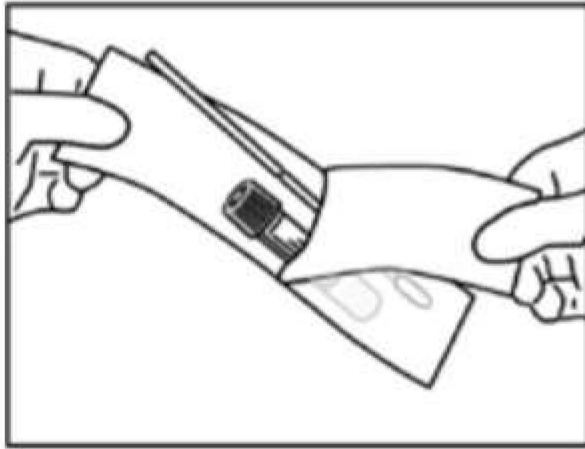
Instructions for Rectal Swab Collection

Bulk stool collection is the preferred sample type over swabs. When unattainable, please use the following instructions for rectal swab collection.

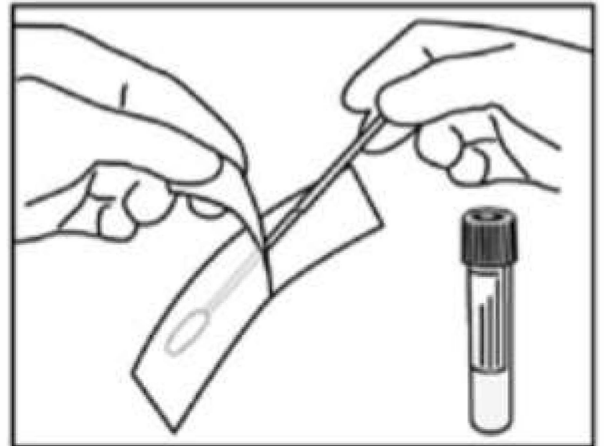
The FecalSwab® rectal swab is to be performed using the tube and swab applicator shown below:



STEP 1 – Open the package with the green cap tube and swab.



STEP 2 - Remove the green cap tube.



STEP 3 - Remove swab from the packaging without touching the swab tip or shaft. Discard the packaging.

Do not touch