

Important health message for Shigellosis – Increased antibiotic resistance

Chief Health Officer Advisory

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Key messages

- *Shigella* bacteria are commonly resistant to some antibiotics, however, increasing antibiotic resistance associated with recent *Shigella* infections has been observed, particularly in men who have sex with men.
- Be alert for shigellosis in high risk populations including men who have sex with men and travellers from overseas.
- When testing for shigellosis, ensure stool samples are sent for **culture** and **antibiotic sensitivity** testing in order to guide appropriate antibiotic treatment.
- The overall number of shigellosis cases in Victoria has increased in recent years, from 442 in 2015 to 600 in 2016.
- **Medical practitioners must notify** the department of all cases of suspected and confirmed shigellosis, and should advise confirmed cases who are food handlers, child care workers and health care workers not to work pending further advice from the department.

What is the issue?

The department has observed an increase the number of shigellosis cases resistant to multiple antibiotics. It is important to ensure all suspected cases of shigellosis have stool samples sent for **culture** and **antibiotic sensitivity** testing.

Who is at risk?

High risk populations include men who have sex with men and all travellers from overseas.

Symptoms and transmission

Transmission of *Shigella* is by the faecal-oral route, and the incubation period is usually one to three days.

Shigellosis is characterised by an acute onset of diarrhoea, fever, nausea, vomiting and abdominal cramps.

Typically, stools contain blood, mucus and pus, although some people will present with watery diarrhoea without these features.

Cases remain infectious while bacteria are continuing to be shed in the faeces, which can last for up to four weeks after symptoms resolve. Rarely, the carrier state may persist for months or longer. Appropriate antibiotic treatment usually reduces the duration of carriage to a few days and is recommended for public health reasons as ingestion of a very low number of bacteria can cause infection.

Prevention/treatment

Stool culture, accompanied by antibiotic sensitivity testing, is the preferred diagnostic test for shigellosis. This helps to ensure that doctors prescribe appropriate antibiotics for their patients.

Because of the small infectious dose, children must be excluded from school and children's services until there has not been a loose bowel action for 24 hours. Food handlers, child care workers and health care workers should be excluded from work until two faecal specimens (collected 24 hours apart but not sooner than 48 hours following the discontinuance of antibiotics) are found to be free of *Shigella*. The Department will arrange follow-up screening of cases.

To help prevent the spread of *Shigella* patients should:

- thoroughly wash their hands after going to the toilet and before eating or preparing food;
- not prepare food for others until 48 hours after symptoms completely resolve; and
- avoid having sex (including oro-anal sex) for seven days after symptoms completely resolve.

Antimicrobial resistance is increasing against some antibiotics recommended in the Therapeutic Guidelines for treatment of shigellosis. Susceptibility testing of *Shigella* isolates in 2016 in Victoria found 64 per cent resistant to ampicillin, 87 per cent resistant to trimethoprim and 49 per cent resistant to azithromycin. The majority (80 per cent) of 2016 isolates were sensitive to ciprofloxacin. However, so far in 2017, high levels of resistance to ciprofloxacin and azithromycin are occurring in *Shigella* isolates from men who have sex with men. The department recommends that clinicians seek advice from an infectious diseases physician, where appropriate, as well as their diagnostic laboratory on the results of antibiotic susceptibility testing in each instance for their patient.

More information

Clinical information

Under the Public Health and Wellbeing Regulations (2009), shigellosis is required to be notified to the Department of Health and Human Services by medical practitioners within five days of initial diagnosis. Notifications can be made online at <http://ideas.health.vic.gov.au> or via telephone on 1300 651 160 or faxed on 1300 651 170.

Consumer information

[Better Health Channel - Gastroenteritis - shigella](#)

<www.betterhealth.vic.gov.au/bhcv2/bhcarticles.nsf/pages/Gastroenteritis_shigella>



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