

Shigella strain resistant to all oral antibiotics circulating in Victoria

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Researchers have reported an extremely drug-resistant strain of *Shigella* circulating in Victoria with the vast majority of cases occurring in men who have sex with men.

Shigella could previously be treated by oral [antibiotics](#) at home, the strain

identified by Doherty Institute researchers is totally resistant to all [oral antibiotics](#). If treatment is required, a patient must be hospitalised and administered with intravenous antibiotics.

Shigellosis is a highly contagious intestinal bacteria that causes dysentery—it's estimated to cause 190 million cases of diarrhoea globally a year.

In low and [middle-income countries](#), the burden of Shigellosis is concentrated in children, with inadequate sanitation and contaminated food and/or water the most common mode of acquisition.

However, in high-income countries, Shigellosis occurs predominantly in returning travellers, or in MSM, and is often considered a sexually-transmitted infection.

The 171 Victorian cases were reported from January 2018 to mid-2019 and are documented in an article published today in the *New England Journal of Medicine*. Prior to 2018, there were only a handful of cases.

Lead author, University of Melbourne Professor Deborah Williamson, Deputy Director of the Microbiological Unit Public Health Laboratory at the Doherty Institute said *Shigella* is the most infectious of the gastrointestinal pathogens.

"Just two or three bacteria can make you really sick, which is why it's so easily transmitted, particularly in men who have sex with men," Professor Williamson said.

"In this study, we used whole genome sequencing to show that all of the cases from the past year and a half are highly related to each other, which strongly suggests person-to-person transmission within specific sexual networks."

Enhanced [contact tracing](#), surveillance and improved messaging around [sexual contact](#) are recommended public health responses for this extremely drug-resistant *Shigella*.

Victoria's Chief Health Officer Dr. Brett Sutton said the increase in drug-resistant *Shigella* has been reflected in changes already made to management recommendations from the department.

"It's of enormous concern that we're seeing cases of *Shigella* that can't be treated with tablet medication, but instead require hospitalisation," Dr. Sutton said.

"Antibiotic treatment should be reserved for priority cases, such as those who are immunosuppressed, those who have severe disease and people who work in high risk settings for onward transmission.

"All suspected cases of Shigellosis should have stool samples sent for culture and antibiotic resistance testing to enable targeted treatment when necessary. As always, it is important to emphasise hygiene and safe sex messages in advice to cases as well as recommending exclusion from work until symptoms cease."

More information: *New England Journal of Medicine* (2019). [DOI: 10.1056/NEJMc1910648](https://doi.org/10.1056/NEJMc1910648)

Provided by University of Melbourne

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