

Communicable Disease Control Directorate Guidelines

Treatment for *Shigella* infections ('Shigellosis') in Western Australia

Guideline 0006/March 2022

These guidelines have been released by the Communicable Disease Control Directorate, Public and Aboriginal Health Division, Western Australian Department of Health, to provide consistent and evidence informed advice to agencies involved in the prevention of infections and management of communicable diseases in Western Australia.

ACKNOWLEDGEMENT OF COUNTRY AND PEOPLE

The Communicable Disease Control Directorate at the Department of Health acknowledges the Aboriginal people of the many traditional lands and language groups of Western Australia. We acknowledge the wisdom of Aboriginal Elders both past and present and pay respect to Aboriginal communities of today.

Contents

1.	Definitions / Acronyms	3
2.	Purpose	4
3.	Introduction / Background	4
4.	Recommend treatment guidelines	5
5.	Relevant Legislation	5
6.	Additional Resources	6
7.	Guideline Contact	6
8.	Document Control	6
9.	Approval	6
10.	References / Bibliography	7

1. Definitions / Acronyms

Term	Definition
Diarrhoea	Is the onset of three or more loose or watery bowel movements in a 24 hour period (or more frequent than usual).
Shigellosis	An infection of the digestive tract caused by Shigella bacteria

2. Purpose

The purpose of this document is to provide treatment guidelines for people with *Shigella* infections in Western Australia (WA) including those people with infections caused by multi-drug resistant strains or living in remote regions of WA. These treatments are intended to help reduce the duration of symptoms and prevent further transmission of these infections within the community.

3. Introduction / Background

Shigellosis is an infection of the digestive tract caused by *Shigella* bacteria. It usually results in diarrhoea, fever, nausea, vomiting and stomach cramps. Symptoms usually last for 4 to 7 days, after which *Shigella* bacteria can continue to be shed in the stool for up to four weeks. This poses a high risk for ongoing person to person transmission particularly in environments where there is crowding, hygiene concerns and poor sanitation. Most people with shigellosis recover by themselves and do not need antibiotic treatment.

In WA, people can acquire shigellosis while travelling overseas and also in WA. In the period 2018 to 2020, there was an average each year of 79 cases acquired overseas and an average of 130 cases acquired in WA. Shigellosis can be diagnosed by polymerase chain reaction (PCR) tests and confirmed by culture to determine the type of *Shigella* strain and antibiotic sensitivities. Of the culture confirmed cases acquired in WA the majority (68%, average n=76/year) reside in remote areas and are Aboriginal people, contributing to the high burden of infectious diseases in Aboriginal people. Remote areas include the Goldfields, Pilbara, Kimberley and remote areas of the Midwest. Most of the *Shigella* strains causing infections in these remote areas are antibiotic sensitive. Although shigellosis is a self-limiting infection, antibiotic therapy can help reduce duration of symptoms and disease transmission (5) and is therefore recommended in these remote areas.

The number of multi-drug resistant (MDR) shigellosis cases (mainly type *S. sonnei* biotype g) has increased recently in WA, from two reported in 2018, nine in 2019 and 24 cases in 2020. These MDR shigellosis cases predominately live in metropolitan Perth and are men who report having sex with men (MSM). To help reduce duration of symptoms and transmission, antibiotic treatment is recommended for MDR shigellosis cases.

From 2018 to 2020 in WA, 20% of shigellosis cases were hospitalised and it is recommended that patients be treated if they have severe illness or are immunocompromised.

Treatment may also be used to help reduce transmission in groups with increased risk of transmission including young children and people residing in facilities. In WA, *Shigella* outbreaks in facilities is uncommon but do occur in Aboriginal communities.

4. Recommended treatment guidelines

Antibiotic treatment is not recommended for most cases of shigellosis as it is usually a self-limiting illness.

Treatment may be considered to help reduce transmission in groups with increased risk of transmission including children younger than 6 years in childcare/schools, and people living in residential aged-care facilities, prisons and other residential facilities. The WA
Public Health Units can provide advice on treatment to prevent outbreaks in facilities.

Treatment is recommended for following groups:

4.1 Shigellosis cases with severe disease or who are immunocompromised

Treatment is recommended for shigellosis cases with severe disease or who are immunocompromised as detailed in the Therapeutic Guidelines (TG).

4.2 Non-multidrug resistant shigellosis in remote regions

Most *Shigella* strains in remote communities are non multi-drug resistant (non-MDR) and can be treated with oral antibiotics and first line of treatment is ciprofloxacin. To prevent ongoing transmission and reduce the risk of severe infection, antibiotic treatment is recommended for confirmed shigellosis in patients living in remote areas of Western Australia. Household contacts of confirmed cases from remote Aboriginal communities who present with diarrhoea, should also be treated with antibiotics.

For details on treatment refer to the <u>"Treatment guideline for shigellosis in remote populations in Western Australia".</u>

4.3 Multi-drug resistant shigellosis

For all confirmed MDR shigellosis cases, intravenous ceftriaxone antibiotic treatment is recommended to prevent ongoing transmission and reduce the risk of severe infection, irrespective of symptoms. Treatment is also recommended for symptomatic suspected cases. Suspected MDR shigellosis includes a person with diarrhoea who is a sexual contact of a confirmed MDR shigellosis patient or is MSM and has locally/interstate acquired PCR/culture positive shigellosis but susceptibility results are not available.

For details on treatment refer to the <u>"Treatment guidelines for multidrug resistant (MDR) shigellosis in Western Australia"</u>.

5. Relevant Legislation

Public Health Act 2016

6. Additional Resources

- Contact your nearest WA public health unit at: https://healthywa.wa.gov.au/Articles/A E/Contact-details-for-population-public-health-units
- WA notification of infectious diseases and related conditions.
 https://ww2.health.wa.gov.au/Articles/N R/Notification-of-infectious-diseases-and-related-conditions
- Fact sheet for *Shigella* infection and dysentery. https://www.healthywa.wa.gov.au/Articles/S_T/Shigella-infection-and-dysentery
- For fact sheets about various communicable diseases visit the Healthy WA website at: https://healthywa.wa.gov.au/Health-conditions/Health-conditions-A-to-Z

7. Guideline Contact

Enquiries relating to this Guideline may be directed to:

Directorate: Communicable Disease Control Directorate

Email: cdcd.directorate@health.wa.gov.au

8. Document Control

Shigellosis treatment guidelines include <u>"Treatment guidelines for multidrug resistant (MDR) shigellosis in Western Australia"</u> and <u>"Treatment guideline for shigellosis in remote populations in Western Australia"</u>.

Version	Published	Review Date	Amendments
V.1.	02/03/2022	02/03/2025	Original version

9. Approval

These Guidelines were endorsed by the Western Australian Multi-resistant Organism Expert Advisory Group (WAMRO).

Approved by	Dr Paul Armstrong, Director,		
	Communicable Disease Control Directorate, Department of Health		
Approval date	02/03/2022		

10. References / Bibliography

- 1. Shigella flexneri 2b in the Northern Territory in 2017. https://digitallibrary.health.nt.gov.au/prodjspui/bitstream/10137/506/557/Vol%2024% 20no%204%20December%202017.pdf
- 2. New South Wales: MDR shigellosis update. https://www.health.nsw.gov.au/Infectious/alerts/Documents/mdr-shigellosis-clinician-alert-2019.pdf
- 3. Victoria: Shigellosis-management recommendations updated. https://www2.health.vic.gov.au/about/news-and-events/healthalerts/advisory-2019-shigellosis
- 4. National Health and Medical Research Council publication: infectious diseases in early childhood and education and care services, 5th edition.
 - a. https://www.nhmrc.gov.au/about-us/publications/staying-healthy-preventing-infectious-diseases-early-childhood-education-and-care-services
- 5. Therapeutic Guidelines: https://www.tg.org.au/
- 6. World Health Organization shigellosis treatment guidelines:

 https://www.who.int/selection_medicines/committees/expert/21/applications/s6_pae

 d_antibiotics_appendix5_dysentery.pdf

Produced by the Department of Health and WAMRO, 2022

This document can be made available in alternative formats on request for a person with disability.

© Department of Health 2022

Copyright to this material is vested in the State of Western Australia unless otherwise indicated. Apart from any fair dealing for the purposes of private study, research, criticism or review, as permitted under the provisions of the *Copyright Act 1968*, no part may be reproduced or re-used for any purposes whatsoever without written permission of the State of Western Australia.