



OPERATIONAL DIRECTIVE

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Phone number: Tel: 9388 4811 / 9388 4872
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Subject: **Public Health Follow-up of Sporadic Enteric Disease Notifications**

This Operational Directive describes the course of action to be undertaken by staff of Public Health Units (PHU) and/or the OzFoodNet Unit within the Communicable Disease Control Directorate for the public health management of **sporadic cases** of notifiable enteric infections. Clusters or outbreaks of enteric infection, especially those occurring in the Perth metropolitan area, are generally investigated by OzFoodNet, with assistance from PHUs, as required.

This document should be read in conjunction with *Guidelines for exclusion of people with enteric infections and their contacts from work, school and child-care settings* (OD 0303/10).

Professor Bryant Stokes
A/DIRECTOR GENERAL
DEPARTMENT OF HEALTH WA

This information is available in alternative formats on request for a person with a disability.

1. BACKGROUND

Enteric infections comprise around one-fifth of all infectious disease notifications in WA. Campylobacteriosis and salmonellosis are most common, accounting for over three-quarters of enteric disease notifications. Appropriate public health management of sporadic enteric disease cases is important in preventing the transmission, and reducing the impact, of these infections.

2. CONTROL MEASURES

The table below summarises the public health follow-up required for sporadic cases of notifiable enteric infections and their contacts, and identifies the responsible organisation and the response timeframe.

Disease (incubation period)	Public health follow-up for cases	Public health follow-up for contacts	Organisation responsible	Response time
Botulism (12-36 hours)	Identify source and stop further consumption of contaminated food.	Identify people who have eaten source food & are at risk of developing disease.	OFN, CDCD in collaboration with FU	On day of notification
Haemolytic uraemic syndrome (HUS) caused by enteric infections (N/A)	Interview to identify risk factors. Maintain surveillance for further cases.	N/A	OFN, CDCD	Within 1 working day of notification
Listeria infection (3-70 days)	Interview to identify risk factors. Maintain surveillance for further cases.	N/A	OFN, CDCD	Within 1 working day of notification
Salmonella Enteritidis infection (1-7 days)	Interview to ascertain where infection acquired. If Australian-acquired, identify risk factors. Ensure enteric precautions and exclusions*.	N/A	OFN, CDCD	Within 7 working days of notification
Shiga-/Vero-toxigenic E. coli (STEC/VTEC) infection (2-10 days)	Interview to identify risk factors. Ensure enteric precautions, exclusions and clearance specimens for high risk cases*.	N/A	OFN, CDCD	Within 1 working day of notification
Vibrio parahaemolyticus infection (4-30 hours)	Interview to ascertain where infection acquired. If Australian-acquired, identify risk factors. Ensure enteric precautions and exclusions*.	N/A	OFN, CDCD	Within 2 working days of notification
Cholera (Vibrio cholerae 01/0139) presumptive toxin positive (Hours to 5 days)	Interview to ascertain where infection acquired (see Appendix 1). If Australian-acquired, refer to OFN to identify risk factors. Ensure enteric precautions, exclusions and clearance specimens for high risk cases*.	N/A	PHU	On day of notification
Hepatitis A (15-50 days)	See Operational Directive (OD 0228/09) Management of Hepatitis A.		PHU	Within 1 working day of notification

Disease (incubation period)	Public health follow-up for cases	Public health follow-up for contacts	Organisation responsible	Response time
Hepatitis E (26-42 days)	Interview to ascertain where infection acquired. If Australian-acquired, refer to OFN to identify risk factors. Ensure enteric precautions and exclusions for high risk cases*.	N/A	PHU	Within 2 working days of notification
Paratyphoid (<i>Salmonella</i> Paratyphi) (1-10 days)	Interview to ascertain where infection acquired (see Appendix 1). If Australian-acquired, refer to OFN to identify risk factors. Ensure enteric precautions, exclusions and clearance specimens for high risk cases*.	Ensure enteric precautions, exclusions and clearance specimens for high risk contacts*	PHU	On day of notification
<i>Shigella dysenteriae</i> infection (1-3 days)	Interview to ascertain where infection acquired (see Appendix 1). If Australian-acquired, refer to OFN to identify risk factors. Ensure enteric precautions, exclusions and clearance specimens for high risk cases*.	N/A	PHU	On day of notification
Typhoid (<i>Salmonella</i> Typhi) (3-60 days)	Interview to ascertain where infection acquired (see Appendix 1). If Australian-acquired, refer to OFN to identify risk factors. Ensure enteric precautions, exclusions and clearance specimens for high risk cases*.	Ensure enteric precautions, exclusions and clearance specimens for high risk contacts*	PHU	On day of notification
<i>Yersinia</i> infection	Generally only clusters or outbreaks investigated, by OFN with assistance from PHU as required.			
<i>Cryptosporidium</i> infection	Generally only clusters or outbreaks investigated, by OFN with assistance from PHU as required.			
<i>Salmonella</i> species, not listed above	Generally only clusters or outbreaks investigated, by OFN with assistance from PHU as required.			
<i>Shigella</i> species, not listed above	Generally only clusters or outbreaks investigated, by OFN with assistance from PHU as required.			
<i>Campylobacter</i> infection	Generally only clusters or outbreaks investigated, by OFN with assistance from PHU as required.			
Rotavirus	Generally only clusters or outbreaks investigated, by OFN with assistance from PHU as required.			

Notes: *refer to *Guidelines for exclusion of people with enteric infections and their contacts from work, school and child-care settings* (OD 0303/10). High risk cases include health care, residential care and child care workers, food handlers, young children in child care and people who are faecally incontinent.

FU = Food Unit, Environmental Health Directorate

OFN, CDCD = OzFoodNet, located within Communicable Disease Control Directorate

PHU = Public Health Unit

N/A = Not applicable

3. PROCEDURE FOR PUBLIC HEALTH MANAGEMENT OF SPORADIC ENTERIC DISEASE NOTIFICATIONS

General procedures

- Confirm that the case meets the case definition for notification and is entered on the Western Australian Notifiable Infectious Disease Database (WANIDD) within 24 hours of receipt, if not already on the database. Update the notification record in WANIDD if additional information is available. **Case definition** manuals are available in all PHUs or individual disease definitions are listed on the Department of Health Public Health website, in the section 'Infectious diseases A to Z for health professionals' http://www.public.health.wa.gov.au/2/243/3/infectious_diseases_az_for_health_professionals.pm
- Refer to table in section 3 above to decide whether OFN or the PHU is responsible for public health management of the case, and the appropriate response time.
- If a PHU is responsible, the case should be followed up by the PHU in the area where the case resides, or for non-residents the PHU area where the case received medical attention.
- Prior to proceeding with case follow-up, the CDCD/PHU staff member should advise the notifying medical practitioner of their intention to contact the case. This is necessary as electronic laboratory notification to CDCD often occurs before the medical practitioner becomes aware of the positive result. Hence, the patient may not have been informed of their diagnosis. In the event that the notifying medical practitioner or appropriate delegate (e.g. practice nurse) is unavailable, CDCD/PHU staff should continue with the follow-up investigation in the interest of minimising disease transmission.
- Provide case and contacts with information about the infection using the generic 'Gastroenteritis' fact sheet and a disease-specific fact sheet, as appropriate (fact sheets available from 'Infectious diseases A-Z': http://www.public.health.wa.gov.au/1/10/2/infectious_diseases and Healthy WA website: <http://www.healthywa.wa.gov.au/>)
- Implement appropriate public health interventions for case and contacts as documented in the table in section 3 above, in collaboration with the notifying medical practitioner and local government officers, as appropriate.
- During public health follow-up, update WANIDD with information collected, including date of onset, travel history, clinical history, whether cases or contacts are high risk and when follow-up is complete.
- If there is cluster or outbreak of a locally acquired enteric infection, CDCD and/or PHU staff will investigate, as appropriate. In the Perth metropolitan area, CDCD will generally lead outbreak investigations. In country areas, the PHU should lead, with advice from CDCD.

Cholera, *Shigella dysenteriae*, typhoid and paratyphoid

- Cholera: for *Vibrio cholerae* O1 or O139 to meet the case definition, the isolate must be toxin positive. However, as toxin testing can take some time, public health follow-up should commence presumptively once the organism is identified as serotype O1 or O139.

- Cases
 - Use the questionnaire included in Appendix 1. Interview the case or, if this is not possible, interview their carer or doctor. For “high risk” cases of typhoid, paratyphoid, *Shigella dysenteriae* infection or cholera, use the appropriate letters in Appendices 2 and 3 to assist with collection of clearance specimens.
- Contacts
 - For high risk contacts of typhoid and paratyphoid only, use the letter in Appendix 4 to assist with collection of clearance specimens.
 - For low risk contacts of typhoid, paratyphoid cholera, and *Shigella dysenteriae* infection, use the letter in Appendix 5 to assist with public health management.

Hepatitis A

- For guidance on public health management, see OD 0228/03 *Management of Hepatitis A*.

4. MORE INFORMATION

For more information contact **OzFoodNet staff** at the **Communicable Disease Control Directorate (08 9388 4811 / 08 9388 4872)** or the appropriate **Public Health Unit** with contact details listed at http://www.public.health.wa.gov.au/3/280/3/contact_details.pm.

5. REFERENCES

1. Heymann DL (ed). Control of Communicable Diseases Manual 2008 (19th Edition). American Public Health Association.
2. Communicable Disease Control Network Australia (CDNA). Surveillance Case Definitions for the Australian National Notifiable Diseases Surveillance System: 1 January 2004 to 1 July 2013.
<http://www.health.gov.au/internet/main/publishing.nsf/Content/cdna-casedefinitions.htm>

6. APPENDICES

Appendix 1: Typhoid / Paratyphoid / Cholera / *Shigella dysenteriae* Questionnaire.

Appendix 2: Typhoid / Paratyphoid specimen collection for clearance letter (high risk cases).

Appendix 3: Cholera / *Shigella dysenteriae* specimen collection for clearance letter (high risk cases).

Appendix 4: Typhoid / Paratyphoid specimen collection for clearance letter (high risk contacts).

Appendix 5: Typhoid / Paratyphoid / Cholera / *Shigella dysenteriae* letter (low risk contacts).



Government of **Western Australia**
Department of **Health**

Typhoid, Paratyphoid, Cholera and *Shigella dysenteriae* Questionnaire

Note to Interviewer: You will need a calendar at hand for this interview

- ☐ Typhoid
- ☐ Paratyphoid
- ☐ Cholera
- ☐ *Shigella dysenteriae*

Date:	/ /
Interviewer:	
Person interviewed if not case
Relationship to case
Interpreter used?	<input type="checkbox"/> No <input type="checkbox"/> Yes
language:
OFFICE USE ONLY	
WANIDD Number	
WANIDD Updated	/ /

SECTION 1: DEMOGRAPHIC DATA

Surname: _____ Other Names: _____
 Street address: _____
 Suburb/town: _____ Postcode: _____
 Telephone: H: () W: () Mobile: _____
 Date of birth: / / or Age: Sex: ☐ Male ☐ Female
 Country of birth: _____ Language spoken at home: _____
 Of Aboriginal or Torres Strait Islander origin? ☐ No ☐ Yes

Occupation:

Name /address of employer or school or child care attended:

Telephone: _____ Fax: _____
 Date last attended: ____ / ____ / ____ High risk group?† ☐ No ☐ Yes

† High risk cases include health, residential and child care workers, food handlers, young children in child care and cases who are faecally incontinent.

SECTION 2: TREATING DOCTOR / HOSPITAL / LABORATORY

Name of treating Doctor: _____ Telephone: _____
Address: _____ Facsimile: _____

Admitted to Hospital: ☐ No ☐ Yes If yes, which hospital? _____ Date of admission: _____

Did patient die? ☐ No ☐ Yes If yes, date of death: / /

Diagnosis method: ☐ Culture ☐ Other, please detail

Date specimen taken / / Specimen type ☐ faeces ☐ blood ☐ other _____

SECTION 3: ILLNESS (SUMMARY)

Onset date of illness: ____/____/____

Total duration of illness:days

Treatment:

Comments:

SYMPTOMS	
Malaise <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown	Skin spots <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown
Anorexia <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown	Body aches <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown
Fever <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown	Diarrhoea <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown
Headache <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown	Vomiting <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown
Cough <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown	Other (specify):

SECTION 4: RISK FACTORS

Incubation/exposure periods:

Infection	Beginning of incubation period	End of incubation period (number of days before onset of illness)
Typhoid	Onset date minus 60 days	Onset date minus 3 days
Paratyphoid	Onset date minus 10 days	Onset date minus 1 day
Cholera	Onset date minus 5 days	Onset time minus a few hours
Shigella dysenteriae	Onset date minus 3 days	Onset date minus 1 day

Onset date of illness (copy from section 3 above): ____/____/____

During the Incubation Period (write dates) ____/____/____ to ____/____/____
 (beginning of incubation period) (end of incubation period)

Risk Factor	Applies	Details
Did the case travel overseas? If Yes, go to Section 5	<input type="checkbox"/> No <input type="checkbox"/> Yes	Places Visited: Departure: ____/____/____ Return: ____/____/____ Illness while away <input type="checkbox"/> No <input type="checkbox"/> Yes
If NO, refer to OzFoodNet, CDCD for further investigation Email ozfoodnetWA@health.wa.gov.au Phone: 93884811 / 93884872 Fax: 93884848		

SECTION 5: FOLLOW UP AND EXCLUSIONS FOR CASE**1. Low risk groups**

Hygiene discussed with case / parent / guardian?	<input type="checkbox"/> No <input type="checkbox"/> Yes	Fact sheet sent?	<input type="checkbox"/> No <input type="checkbox"/> Yes
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2. High risk groups

Tick box that describes case:

- ☐ Young child in child care
 ☐ Child care worker
 ☐ Health care worker
 ☐ Residential care worker
 ☐ Food handler
☐ Faecally incontinent

Name of workplace/child care centre:		Date last attended: ____ / ____ / ____	
Exclusion required?		<input type="checkbox"/> No <input type="checkbox"/> Yes	
Exclusion discussed with case / parent / guardian.	<input type="checkbox"/> No <input type="checkbox"/> Yes	Hygiene discussed with case / parent / guardian?	<input type="checkbox"/> No <input type="checkbox"/> Yes
Letter and fact sheet sent?	<input type="checkbox"/> No <input type="checkbox"/> Yes		
Clearance testing [§]	<input type="checkbox"/> No <input type="checkbox"/> Yes	#1: ____ / ____ / ____	<input type="checkbox"/> Detected <input type="checkbox"/> Not Detected
		#2: ____ / ____ / ____	<input type="checkbox"/> Detected <input type="checkbox"/> Not Detected
		#3: ____ / ____ / ____	<input type="checkbox"/> Detected <input type="checkbox"/> Not Detected

[§] Clearance is defined as:

Typhoid, Paratyphoid: Three consecutive negative faecal cultures, taken at least 24 hours apart, commencing at least 48 h after cessation of antibiotic therapy and not before one month after onset of illness.

Cholera, Shigella dysenteriae: Asymptomatic for 48 hours, then two consecutive negative faecal specimens collected at least 24 hours apart

SECTION 6: FOLLOW UP AND EXCLUSIONS FOR CONTACTS**Note:** Only applicable for typhoid and paratyphoid**6.1 Contacts who travelled overseas with the case**

– check if they are high risk[‡], if so clearance[§] and exclusion required for typhoid and paratyphoid contacts, for other contacts send contact letter and fact sheets

Name	Age	Contact phone number and address	Has the contact had similar symptoms to case?	Occupation & workplace / School / Child care centre	Clearance Testing & Exclusion required
1.			<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Don't Know		<input type="checkbox"/> No <input type="checkbox"/> Yes
2.			<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Don't Know		<input type="checkbox"/> No <input type="checkbox"/> Yes
3.			<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Don't Know		<input type="checkbox"/> No <input type="checkbox"/> Yes

SECTION 6: FOLLOW UP AND EXCLUSIONS FOR CONTACTS – Cont'd....

Name	Age	Contact phone number and address	Has the contact had similar symptoms to case?	Occupation & workplace / School / Child care centre	Clearance Testing & Exclusion required
4.			<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Don't Know		<input type="checkbox"/> No <input type="checkbox"/> Yes
5.			<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Don't Know		<input type="checkbox"/> No <input type="checkbox"/> Yes

‡ Exclusion required for high risk contacts (health, residential and child care workers, food handlers, young children in child care, faecally incontinent) who had a similar exposure (i.e. travelled) to the case during their incubation period

§ Clearance is defined as:

Typhoid, Paratyphoid: Two consecutive negative faecal cultures, taken at least 24 hours apart. These can commence immediately. Note that this is different to the clearance requirements for cases.

6.2 Close household contacts of the case after their symptoms developed

- send fact sheet, inform contact that they must stop work immediately if symptoms develop

Name	Age	Contact phone number and address	Has the contact had similar symptoms to case?	Occupation / School / CCC
1.			<input type="checkbox"/> No <input type="checkbox"/> Yes	
2.			<input type="checkbox"/> No <input type="checkbox"/> Yes	
3.			<input type="checkbox"/> No <input type="checkbox"/> Yes	
4.			<input type="checkbox"/> No <input type="checkbox"/> yes	

NOTES:

Attach extra investigation sheets if necessary



Government of **Western Australia**
Department of **Health**

Dear

Following on from your typhoid / paratyphoid infection (*delete as appropriate*), this letter explains Department of Health requirements for testing to check that you no longer carry the infection.

Before you can return to work as a food handler, health care worker, residential care worker or child care worker, or before returning to child care, you (or your child) need to provide 3 faecal specimens and all 3 must be clear of the bacterial organism that causes typhoid / paratyphoid fever (*delete as appropriate*).

These 3 faecal specimens need to be collected at least 24 hours apart. You need to provide the first specimen at least 48 hours after you finish your course of antibiotics, and more than one month after the start of your illness.

Collection of these specimens can be organised through the hospital, if you were admitted for your illness, or through your GP. We can assist in organising this, or if neither of these options is possible, make another arrangement. Please contact me to organise the testing.

Remember that typhoid and paratyphoid can be passed from person-to-person and from a person contaminating food, so you must be very careful with hygiene until it is determined that you are no longer carrying the organism in your bowel (that is, you are found to be "clear" of the infection). I have attached an information sheet about preventing the spread of gastroenteritis. This information applies to preventing the spread of typhoid and paratyphoid. Also attached is an information sheet with more specific details about typhoid and paratyphoid fever.

Please contact me if you have any questions or concerns.

Yours sincerely

Staff member's name
Staff member's position
Telephone: 08
Email: @health.wa.gov.au

Date:

Att:.



Government of **Western Australia**
Department of **Health**

Dear

Following on from your cholera / *Shigella dysenteriae* (delete as appropriate) infection, this letter explains Department of Health requirements for testing to check that you no longer carry the infection.

Before you can return to work as a food handler, health care worker, residential care worker or child care worker, or before returning to child care, you need to provide 2 faecal specimens and both must be clear of cholera / *Shigella dysenteriae* (delete as appropriate). The 2 faecal specimens need to be collected at least 24 hours apart and collected at least 48 hours after your last diarrhoeal episode.

Collection of these specimens can be organised through the hospital, if you were admitted for your illness, or through your GP. We can assist in organising this, or if neither of these options is possible, make another arrangement. Please contact me to organise the testing.

Remember that cholera / *Shigella dysenteriae* (delete as appropriate) can be passed from person-to-person, so you must be very careful with hygiene until you are clear of the infection. I have attached an information sheet about preventing the spread of gastroenteritis. This information applies to preventing the spread of cholera / *Shigella dysenteriae* (delete as appropriate). Also attached is an information sheet with more specific details about cholera / *Shigella* infection (delete as appropriate).

Please contact me if you have any questions or concerns.

Yours sincerely

Staff member's name
Staff member's position
Telephone: 08
Email: @health.wa.gov.au

Date:

Att:



Dear

You have been identified as having been in close contact with a person with typhoid / paratyphoid (*delete as appropriate*). As typhoid / paratyphoid (*delete as appropriate*) is highly infectious and can cause serious illness, this letter explains Department of Health requirements for testing to check whether you also have the infection.

Before you can return to work as a food handler, health care worker, residential care worker or child care worker, or before returning to child care, you (or your child) need to provide 2 faecal specimens and both must be clear of the bacterial organisms that cause typhoid / paratyphoid (*delete as appropriate*). The specimens need to be collected at least 24 hours apart.

Collection of these faecal specimens can be organised through your GP, with our assistance. If this option is not possible you can contact me to organise the testing.

You must be extra careful with hygiene until you know that both of your test results are negative. I have attached an information sheet about preventing the spread of gastroenteritis. This information applies to preventing the spread of typhoid and paratyphoid. Also attached is an information sheet with more specific details about typhoid and paratyphoid fever.

Please contact me if you have any questions or concerns.

Yours sincerely

Staff member's name
Staff member's position
Telephone: 08
Email: @health.wa.gov.au

Date:

Att.



Government of **Western Australia**
Department of **Health**

Dear

You have been identified as having been in close contact with a person with *Shigella dysenteriae* / typhoid / paratyphoid / cholera (*delete as appropriate*) infection.

As *Shigella dysenteriae* / typhoid / paratyphoid / cholera (*delete as appropriate*) is highly infectious and can cause serious illness, you must be very careful with hygiene before preparing or eating food and after going to the toilet. If you develop fever, diarrhoea, nausea, vomiting, abdominal pain or feel ill, you should see your doctor and inform them that you have been in contact with a person with *Shigella dysenteriae* / typhoid / paratyphoid / cholera (*delete as appropriate*).

I have attached an information sheet about preventing the spread of gastroenteritis. This information applies to preventing the spread of *Shigella dysenteriae* / typhoid / paratyphoid / cholera (*delete as appropriate*). Also attached is an information sheet with more specific details about *Shigella* infection / typhoid and paratyphoid / cholera (*delete as appropriate*).

Please contact me if you have any questions or concerns.

Yours sincerely

Staff member's name
Staff member's position
Telephone: 08
Email: @health.wa.gov.au

Date:

Att.