

IDRS Infectious Disease Reporting System

Disease Reporting 24 Hours a Day

Columbus Public Health and Franklin County Public Health

QUICK FACTS FOR PROVIDERS: Typhoid Fever

REPORTING INFORMATION

Class B: Report by the end of the next business day after the case or suspected case presents and/or a positive laboratory result to the local public health department where the patient resides. If patient residence is unknown, report to the local public health department in which the reporting health care provider or laboratory is located.

Agent

Salmonella enterica serotype Typhi is the agent of typhoid fever. (Note: this organism is different from Salmonella enterica serotype Typhimurium).

SIGNS AND SYMPTOMS

A febrile illness with headache, malaise, anorexia, weakness, stomach pain, headache and non-productive cough. Rose spots on the trunk appear in 25% of cases. Constipation is more common than diarrhea. Many mild and atypical infections occur. Approximately 2%-5% of typhoid fever patients become carriers.

Source

Humans are the reservoir of Salmonella serotype Typhi.

Occurrence

Typhoid fever occurs worldwide. Ohio reports approximately 10 cases annually, most of whom have a recent history of foreign travel.

Mode of Transmission

Ingestion of food or water contaminated with feces or urine from patients with typhoid fever or carriers of Salmonella serotype Typhi. Flies might help carry the bacteria from filth to food. Direct person-to-person transmission by the fecal-oral route may also occur.

Period of Communicability

The organism is shed in the stool during the acute illness and throughout convalescence. Approximately 2%-5% of typhoid fever patients become chronic carriers.

Incubation Period

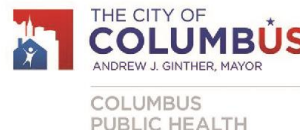
3 days to over 60 days, usually 7-14 days.



c/o Franklin County Public Health, 280 East Broad Street, Columbus, Ohio 43215-4562

Call: (614) 525-8888 • After Hours: (614) 525-3965 • Fax: (614) 525-8890

Email: ids@franklincountyohio.gov • Web: www.idrsinfo.org



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Treatment

Antibiotic treatment is usually indicated. Treatment should be based on the antibiotic susceptibility of the patient's culture. Fluoroquinolones appear to be the drug of choice for adults, but resistance is developing in some regions. The following may be used if the strain is sensitive: oral chloramphenicol, amoxicillin, trimethoprim-sulfamethoxazole, expanded-spectrum cephalosporins or azithromycin. Relapses occur in 15%-20% of cases.

The chronic carrier state may be eradicated with 4 weeks of oral therapy with ciprofloxacin or norfloxacin, antimicrobial agents that are highly concentrated in bile. High-dose parenteral ampicillin can also be used if 4 weeks of oral fluoroquinolone therapy is not well tolerated. Cholecystectomy may be indicated in some adults if antimicrobial therapy alone fails.

Isolation and Follow-Up Specimens

All cases, regardless of their occupation, should have 3 stool specimens tested for Salmonella serotype Typhi. Three consecutive negative specimens are generally sufficient to rule out carriage.

Ohio Administrative Code (OAC) 3701-3-13 (BB) states:

- "Typhoid fever: a person with typhoid fever who attends a child care center or works in a sensitive occupation shall be excluded from the child care center or work in the sensitive occupation and may return after the person is asymptomatic and after three consecutive follow-up stool specimens are negative for Salmonella Typhi."
- Obtain the first stool specimen at least 48 hours after completion of antibiotic therapy. Obtain the remaining specimens at least 24 hours apart. If one or more of the first three follow-up specimens are positive, space subsequent specimens at one week intervals until a maximum of eight weeks after onset of illness. After eight weeks, obtain follow-up specimens at one month intervals for up to one year.

The initial isolate identifying the case as typhoid fever is often from a blood culture. Regardless of the source of the initial isolate, follow-up cultures should always be from stool.

Contacts

All household members should be tested for Salmonella serotype Typhi, regardless of their symptoms or occupation.

Prevention and Control

Sanitary disposal of human waste, hand washing, fly control and provision of safe food and drinking water are important in the prevention and control of typhoid fever.



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