

SHIGELLOSIS

Epidemiology

Source: Human
Anatomical source
Stools
Transmission

- Fecal-oral
- Person-to-person
- Indirect contact
- Ingestion of contaminated food/water

Infectious dose
10-100 bacteria

Incubation
1-3 days
(12 hr - 7 d)

Clinical case definition

- Watery, loose stools
- Fever
- Abdominal pain
- Cramps
- Tenderness
- Tenesmus
- Mucoid stools
- Possible blood in stools

Complications: bacteremia, Reiter Syndrome, hemolytic-uremic syndrome, toxic megacolon, intestinal perforation, toxic encephalopathy

Contagious as long as organisms are present in feces (1-4 wks)

Outbreaks

- Food- or water-borne
- Attack Rate
10-40% household

~ 14,000 reported cases per year in U.S.

Food handlers and health care workers should be excluded until stool culture is negative

Diagnosis

Shigella are gram-negative bacilli in the Enterobacteriaceae family. There are four species (*S. sonnei*, *S. boydii*, *S. flexneri*, *S. dysenteriae*) and over 40 serotypes. *S. sonnei* is the most common (80%).

Lab Diagnosis

- **Culture:** Isolation of *Shigella* from feces. Enhanced by use of specific selective media to suppress the growth of non-pathogenic bacteria. Dyes that tag rapid fermenters of lactose (not *Shigella*). Mac Conkey, Hektoen enteric, TTC media are used
- Blood should be cultured in severely ill patients to test for bacteremia
- Fluorescent antibody test, PCR assay, & enzyme linked DNA probes are also available

Probable: Clinically compatible case that is epidemiologically linked to a confirmed case

Confirmed: Clinically compatible case that is laboratory confirmed

Treatment

Treatment

- Fluid and electrolyte replacement to prevent dehydration
- Most infections are self-limited and do not require treatment but antibiotics do shorten the duration and severity of symptoms and eradicate organisms from feces
- **Fluoroquinolones** (ciprofloxacin, norfloxacin) for 5 days
- Alternatives: ceftriaxone, cefixime, trimethoprim-sulfamethoxazole
- Anti-motility agents are not recommended.

Standard, contact precautions

Control

Report all cases of shigellosis

Case Management

- Food handlers, health care workers, staff & children at child care centers should be excluded until diarrhea has ceased.
- Infected people should not use recreational water venues

Prevention

- Hand washing carefully and frequently, with soap (esp. before meals and after bathroom)
- Sanitary disposal of feces (diapers)
- Disinfect diaper changing areas
- Safe water supply (chlorination)
- Proper cooking