



Don't Let the Bug Beat You: *Salmonella* spp.

Salmonella spp. is typically contracted via consumption of contaminated food or water, particularly in endemic areas. The most common acute presentation is gastrointestinal illness (cramping, diarrhea, vomiting) and fever. It may cause more severe disease, including sepsis, rash, prolonged or bloody diarrhea, bacteremia, or other extraintestinal infection.¹⁻⁴ Molecular testing for gastrointestinal pathogens are becoming increasingly common in clinical practice. When a stool specimen tests positive for *Salmonella* spp., how should they be evaluated and managed?

What guidance is available?

Treatment approach differs based species. Key differentiator is if *Salmonella enterica*, or typhoid/paratyphoid disease (also called Typhoid fever) is identified vs. other *Salmonella* spp., or non-typhoidal disease. The Centers for Disease Control and Infectious Diseases Society of America both address salmonellosis management.²⁻⁴

Table 1: *Salmonella* spp. Infections²⁻⁶

	Non-typhoidal Disease	<i>Salmonella enterica</i> / Typhoid fever
Epidemiology in United States	~250,000 annually	~6000 annually Estimated 85% of patients have travel exposure
Incubation Period	12 hours – 6 days	6 – 30 days
Duration of Symptoms	1 – 7 days	7 – 30 days Relapse occurs in up to 10% of patients after recovery
Decision to Treat	Mostly self-limiting; treatment ONLY recommended in: <ul style="list-style-type: none">• Infants• Age > 50 years• Immunocompromised (e.g. HIV, receiving chemotherapy)• Severe disease	Treatment RECOMMENDED to reduce risk of complications
Antibiotic Therapy	First line: 3 rd generation cephalosporin, fluoroquinolones Alternative: azithromycin	Primarily based on susceptibility; consider area of travel when selecting empiric therapy First line for FQ susceptible isolates: ciprofloxacin Alternatives: azithromycin, ceftriaxone, carbapenems
Supportive Therapy	Rehydration	Rehydration
Prevention	<ul style="list-style-type: none">• Hand hygiene• Food safety	<ul style="list-style-type: none">• Hand hygiene• Food safety• Vaccine available

Key Takeaway: Non-typhoidal *Salmonella* spp. infections, which are far more common in the United States, are often self-limiting and only require antibiotic therapy in high-risk patients or severe disease. *Salmonella enterica* infections, also known as typhoid or paratyphoid disease should be managed with antibiotics.

References:

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