



COUNTY OF SAN LUIS OBISPO HEALTH AGENCY
PUBLIC HEALTH DEPARTMENT
PROVIDER HEALTH ADVISORY

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Travel-associated Multidrug-Resistant Strain of Salmonella

The Centers for Disease Control and Prevention (CDC) has observed an [increase in certain Salmonella infections](#) among travelers to and from Mexico. The Salmonella causing these infections are a strain of multidrug-resistant Salmonella serotype Newport (MDR Salmonella Newport). MDR infections can be harder to treat, and patients may be at increased risk for developing serious complications.

Healthcare providers should consider this strain of MDR Salmonella Newport in the differential diagnosis of patients with symptoms compatible with salmonellosis (e.g., diarrhea, fever, and abdominal cramps) who traveled to and from Mexico in the 7 days before onset of symptoms. CDC has released guidance for managing patients known or suspected to have an infection with this strain, including information on diagnosis, treatment, patient education, and additional resources.

Please see the attached CDC guidance, "Information for the management of infections with a travel-associated multidrug-resistant strain of Salmonella Newport".

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Salmonella

Salmonella Home

Information for the management of infections with a travel-associated multidrug-resistant strain of *Salmonella* Newport

CDC has observed an increase in certain *Salmonella* infections among travelers to or from Mexico. The *Salmonella* causing these infections are a strain of multidrug-resistant *Salmonella* serotype Newport (MDR *Salmonella* Newport).

[Learn more >](#)

Information on this page is to be used for the management of patients only with known or suspected MDR *Salmonella* Newport infection after travel to or from Mexico.

See [resources for healthcare providers](#) for information on the management of other patients.

Patient management recommendations

Most patients with *Salmonella* diarrheal illness require only supportive care, which includes fluid replacement. In healthy people with *Salmonella* infection, antibiotics generally do not shorten the duration of diarrhea or fever. The main risks of treatment include adverse effects of the antibiotic, the possibility of prolonged asymptomatic *Salmonella* carriage, and disturbance of the microbiome. Antibiotic use also contributes to antibiotic resistance.

Antibiotic treatment should be considered only for certain patients, such as

- People with severe diarrhea, blood infection, or extra-intestinal infections (for example, urinary tract infection), and
- People at risk for invasive disease, such as
 - Children younger than 3 months
 - Older adults with atherosclerosis
 - People with immunosuppression, heart disease, or major joint disease

Consider this strain of multidrug-resistant (MDR) *Salmonella* Newport infection in the differential diagnosis of patients with symptoms compatible with salmonellosis (e.g., diarrhea, fever, and abdominal cramps) and who traveled to Mexico in the 7 days before illness began.

Most MDR *Salmonella* Newport isolates from this travel-associated strain are not susceptible to most antibiotics generally recommended for treatment. If you are considering antibiotic treatment for a patient with known or suspected MDR *Salmonella* Newport infection after travel to Mexico, consider the following:

Diagnosis

- Obtain appropriate cultures (for example, stool, urine, blood).
- Order antimicrobial susceptibility testing of the *Salmonella* isolate to guide the choice of antibiotic if antibiotic treatment is needed.
- If *Salmonella* is identified by a culture-independent diagnostic test (CIDT), request a follow-up (reflex) culture to obtain an isolate for antimicrobial susceptibility testing.

Treatment



- Limit use of antibiotics for patients with an acute diarrheal illness to those with clinical indications.

- Consider the resistance profile of this strain of MDR *Salmonella* Newport when selecting empiric treatment for patients who traveled to Mexico in the 7 days before illness began.
 - Ceftriaxone or an alternative agent should be considered for empiric treatment.
 - Most isolates are *susceptible* to ceftriaxone.
 - Most isolates are *resistant* to ampicillin, ciprofloxacin, and trimethoprim-sulfamethoxazole.
 - Azithromycin may not be effective for treating this strain and should be used with caution. Clinical breakpoints to determine resistance have not been established for azithromycin, but most isolates carry a macrolide resistance gene and show an elevated minimum inhibitory concentration (>32 µg/ml) on laboratory testing.
- Tailor antibiotic treatment to the results of antimicrobial susceptibility testing when possible.
- Consider consulting an infectious disease specialist for management of patients with MDR or complicated *Salmonella*.
- Advise patients about returning to work based on local and state health department recommendations. Some health departments require a negative stool test before a person can return to work in a high-risk setting (such as food preparation, childcare, or healthcare) after a *Salmonella* infection.

Patient education recommendations

- **Advise patients** that they can take steps to prevent the spread of disease. People with diarrhea should:
 - Wash their hands thoroughly with soap and water for at least 20 seconds during [key times](#), including after using the toilet
 - NOT share their food with others
 - NOT prepare food for others
 - Stay home from childcare, school, and work while sick or until the health department says it is safe to return
 - NOT swim or soak in shared bodies of water – including in pools, hot tubs, lakes, ponds, or the ocean – until they have fully recovered
 - Wait to have sex until they have fully recovered
 - Be extra diligent about practicing good hygiene for at least 2 weeks after diarrhea ends; people with salmonellosis (and some other diarrheal illnesses) might continue to shed the bacteria in stool after symptoms resolve
- **Advise travelers** that there are no vaccines against nontyphoidal *Salmonella*. Travelers should always practice [safe food and drinking habits](#). These habits can help protect travelers against other travel-associated illnesses, including [travelers' diarrhea](#) and [typhoid fever and paratyphoid fever](#). (Travelers can be [vaccinated against typhoid fever](#).)

Resources for healthcare providers

- [2017 Infectious Diseases Society of America Clinical Practice Guidelines for the Diagnosis and Management of Infectious Diarrhea](#) 
- [CDC Yellow Book](#)
 - Travel-related Infectious Diseases: [Salmonella](#)
 - Preparing International Travelers: [Food & Water Precautions](#)
- Red Book (by the American Academy of Pediatrics): [Salmonella](#) 
- [CDC's Travelers' Health Clinician Information Center](#)
- [Foodborne Illness and Culture-Independent Diagnostic Tests](#)