

Multicenter GeoSentinel Analysis of Rickettsial Diseases in International Travelers, 1996–2008

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CME ACTIVITY

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Learning Objectives

Upon completion of this activity, participants will be able to:

- Describe the most common rickettsial diseases in returning international travelers between 1996 and 2008.
- Identify risk factors associated with higher likelihood of rickettsial disease among returning international travelers.
- Describe the most common treatment for rickettsial diseases.

Editor

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We investigated epidemiologic and clinical aspects of rickettsial diseases in 280 international travelers reported to

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the GeoSentinel Surveillance Network during 1996–2008. Of these 280 travelers, 231 (82.5%) had spotted fever (SFG) rickettsiosis, 16 (5.7%) scrub typhus, 11 (3.9%) Q fever, 10 (3.6%) typhus group (TG) rickettsiosis, 7 (2.5%) bartonellosis, 4 (1.4%) indeterminable SFG/TG rickettsiosis, and 1 (0.4%) human granulocytic anaplasmosis. One hundred ninety-seven (87.6%) SFG rickettsiosis cases were acquired in sub-Saharan Africa and were associated with higher age, male gender, travel to southern Africa, late summer season travel, and travel for tourism. More than 90% of patients with rickettsial disease were treated with doxycycline, 43 (15.4%) were hospitalized, and 4 had a complicated course, including 1 fatal case of scrub typhus encephalitis acquired in Thailand.

Rickettsial diseases are acute and potentially severe zoonotic infections caused by obligate intracellular,

¹Additional members of the GeoSentinel Surveillance Network who contributed data are listed at the end of this article.

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Article Title

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CME Questions

1. Which of the following are no longer classified as rickettsial disorders?

- A. *Ehrlichia* and *Anaplasma*
- B. *Orientia* and *Coxiella burnetti*
- C. *Coxiella burnetti* and *Bartonella*
- D. *Anaplasma* and *Bartonella*

2. A 44-year-old male traveler returning from Tanzania presents 7 days after return with fever and respiratory symptoms. Among rickettsial diseases to be considered, which of the following is most likely to be the cause of his illness?

- A. Ehrlichiosis
- B. Spotted fever group rickettsiosis
- C. Bartonellosis
- D. Typhus group rickettsiosis

3. Which of the following is least likely to be positively and independently associated with spotted fever group rickettsiosis in a returning international traveler?

- A. Travel for business
- B. Visit to southern Africa
- C. Male gender
- D. Travel from March to May

4. Which of the following is the most commonly used treatment for rickettsial disease among returning international travelers?

- A. Tetracycline
- B. Minocycline
- C. Septra
- D. Doxycycline

Activity Evaluation

1. The activity supported the learning objectives.					
Strongly Disagree					Strongly Agree
1	2	3	4		5
2. The material was organized clearly for learning to occur.					
Strongly Disagree					Strongly Agree
1	2	3	4		5
3. The content learned from this activity will impact my practice.					
Strongly Disagree					Strongly Agree
1	2	3	4		5
4. The activity was presented objectively and free of commercial bias.					
Strongly Disagree					Strongly Agree
1	2	3	4		5
