To: CAHAN San Diego Participants
Date: November 3, 2023
From: Public Health Services

Health Advisory: Endemic Rocky Mountain Spotted Fever (RMSF) in Baja California Region

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Key Messages

- Rocky Mountain Spotted Fever (RMSF) is endemic in the Baja California region. Non-residents with RMSF may seek medical attention in San Diego County (SDC).
- Infection rates among SDC residents have remained steady over the last decade. Travel to Mexico is a known risk factor.
- Early case detection and initiation of doxycycline without delaying for diagnostic confirmation can reduce RMSF morbidity and mortality.
- Report suspected and confirmed RMSF cases to the Epidemiology Program by calling 619-692-8499 (Monday-Friday 8 AM-5 PM), or by faxing a Confidential Morbidity Report Form to 858-715-6458.

Situation

In the Baja California region (e.g., Mexicali, Tijuana, Ensenada, and Vicente Guerrero) there were 88 confirmed RMSF cases in 2022 (incidence 2.3/100,000 population). Of the 88 confirmed cases, there were 36 deaths (case fatality rate 47%). In contrast, 1 to 3 cases of RMSF are reported among SDC residents annually. Additional non-resident cases are also diagnosed in SDC but are not included in the SDC case count. In 2022 there was 1 confirmed and 1 probable case among County residents with an additional 2 probable cases among nonresidents. There were no deaths among San Diego County resident cases reported in 2022.

Background

Caused by *Rickettsia rickettsii*, RMSF has emerged in the southwest US and reemerged in northern Mexico where it is spread primarily by the brown dog tick, *Rhipicephalus sanguineus*. The higher case counts occur in populated areas where free roaming dogs have high tick infestations. This contrasts locally acquired RMSF in San Diego County where hikers may acquire sporadic infections from ticks thriving on shaded trails, often on north-facing slopes in a seasonal pattern. SDC residents are also at risk when traveling to endemic areas. *R. rickettsii* transmission from ticks to humans requires several hours of attachment. Checking for and removing attached ticks can prevent infection. Treatment with doxycycline can reduce the case-fatality rate from 20%–80% to 3%–5%. The Centers for Disease Control and Prevention (CDC) recommends early initiation of doxycycline to improve survival. Additional information on RMSF in the California-Mexico border region is available in the October 2023 edition of the San Diego Physician.

Actions Requested

1. **Diagnose** RMSF in both adults and children showing non-specific symptoms (e.g., fever, headache, muscle aches, fatigue and/or rash), as well as assessing for potential recent tick bites, exposure to highly tick-populated areas, and travel history to endemic areas and testing using polymerase chain reaction or serological studies.
2. **Provide** early treatment with doxycycline to suspected RMSF cases.

3. ***Report*** all suspect and confirmed RMSF cases to the Epidemiology Unit by faxing a Confidential Morbidity Report to 858-715-6458, or by calling 619-692-8499 (Monday-Friday 8 AM-5 PM)).

Resources

Federal
- [Rocky Mountain Spotted Fever (RMSF) | CDC](#)
- [Rocky Mountain Spotted Fever (and other tickborne diseases) Toolkit for Healthcare Providers | CDC](#)
- [Tick Removal | CDC](#)

State
- [Rocky Mountain Spotted Fever and Pacific Coast Tick Fever Fact Sheet | CDPH](#)

County
- [Rickettsial Disease | Communicable Disease Report August 16, 2023| CoSD](#)
- [Vector-Borne Illness of Public Health Significance | CAHAN August 20, 2020 | CoSD](#)
- [Tick-borne Disease in San Diego County | CAHAN November 25, 2013 | CoSD](#)
- [Ticks | CoSD](#)

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