



ARIZONA DEPARTMENT OF HEALTH SERVICES

PREPAREDNESS

Capt. Danice K. Eaton, MPH, PHD

Lead, Fellowship and Response Support Team (FRST)
Centers for Disease Control and Prevention (CDC)
1600 Clifton Road, NE, MS E-92, Atlanta 30329-4027

July 6, 2018

Dear Capt. Eaton,

Rocky Mountain spotted fever (RMSF) continues to emerge as a significant health issue in the tribal communities of Arizona with more than 380 cases, including 23 deaths reported from tribal residents since 2003. During this same time, CDC, Indian Health Services (IHS), and the Arizona Department of Health Services (ADHS) have been working together with tribes to understand the unique epidemiology, transmission, ecology, and clinical risk factors associated with this devastating disease. We know that RMSF is a rapidly progressing disease spread by the brown dog tick in Arizona. RMSF occurs in epidemic levels in some tribal communities with disease rates driven by heavy peri-domestic tick infestations and large populations of free roaming dogs. More than half of RMSF cases and deaths have occurred in children less than 10 years of age. Beyond the sheer number of fatalities, large portion of Arizona cases, require hospitalization, many spending time in the intensive care unit. However, we do not have a good understanding of the long-term impact the disease once they leave the hospital. Small studies have suggested that long-term sequela may result from severe RMSF infection and can include outcomes like blindness, hearing loss; paralysis; or mental disability; but we do not know how frequently this may occur, and if patients are likely to improve over time.

CDC, IHS, ADHS, and tribal communities are working to build sustainable RMSF prevention programs and have undertaken massive efforts to improve clinical education programs to ensure healthcare providers in the region can recognize the signs and symptoms of RMSF and quickly initiate effective antibiotic therapy. Despite these efforts, cases, including critical and fatal cases, continue to occur. Due to the significant impact RMSF continues to have on our community, there is an urgent need to identify the

Douglas A. Ducey | Governor Cara M. Christ, MD, MS | Director



ARIZONA DEPARTMENT OF HEALTH SERVICES

PREPAREDNESS

long-term health impact of RMSF. ADHS would like to ask for CDC's help in identifying the undetermined risk factors for long-term sequelae resulting from Rocky Mountain spotted fever. Objectives of this investigation will be to:

1. Identify cases of RMSF hospitalized for their illness between 2003-2017 who might have persistent health impacts.
2. Identify and describe impairments to cognitive, behavioral, motor, and developmental function following RMSF illness using patient interviews, neurologic assessments, and developmental skills assessments for children < 5 years.
3. Use statistical methods to characterize risk factors associated with such long term neurological sequelae.

Results of this investigation will help healthcare providers to make informed decisions on the long-term management and specialized follow-up care to optimize functional status and recovery of RMSF survivors. This information will also enable effective counselling of patients and families on likely outcomes of RMSF illness and the expected length of time to recovery.

A handwritten signature in blue ink, appearing to read "Ken Komatsu".

Ken Komatsu, MPH
State Epidemiologist,
Chief, Office Infectious Disease Services
Arizona Department of Health Services