Rocky Mountain Spotted Fever: An Update from Arizona

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Overview

• What is RMSF
• History of RMSF in AZ
• What makes RMSF in AZ so different
• State level support
• Moving forward
Rocky Mountain Spotted Fever (RMSF)

• Tick borne pathogen caused by *Rickettsia rickettsii*

• Typical symptoms: fever, headache, abdominal pain, vomiting and muscle pain
  – Rash may or may not develop

• **DOXYCYCLINE** is the first line treatment for both adults and children
History of RMSF in AZ

250+ cases 2003-2012
19 fatalities
6 different reservation areas
What makes RMSF in AZ so Different?

- New tick vector
- Seasonality in AZ
- Tribal lands
- During 2010-2011 >200X the national RMSF incidence
- Age distribution
- Convalescent specimen follow up
The Primary U.S. Tick Vectors of RMSF

*Dermacentor variabilis*
American dog tick

*Dermacentor andersoni*
Rocky Mountain wood tick

*Photos and maps courtesy of CDC*
The Primary AZ Tick Vector of RMSF

*Rhipicephalus sanguineus*
Brown dog tick

Photos and maps courtesy of CDC
Peak of disease activity corresponds with peak of tick activity
2000-2010 RMSF Age Distribution in the U.S.

Graph courtesy of CDC
2002-2012 RMSF Age Distribution in AZ
2002-2012 RMSF Age Distribution in AZ

45%
Convalescent Specimen Follow Up

• Paired samples
  – Acute: taken within the first week of illness and will almost always be negative
  – Convalescent: taken 2-4 weeks later
  – Produce a four-fold rise in antibody titers
State Level Support

Statewide Meetings

ARIZONA STATEWIDE TRIBAL INDIAN HEALTH SERVICE,
ARIZONA DEPARTMENT OF HEALTH SERVICES, CENTERS FOR DISEASE CONTROL AND PREVENTION
2/17/12 ROCKY MOUNTAIN SPOTTED FEVER MEETING REPORT

WHAT ELSE IS NEEDED?
- Making RMRFS and tick prevention a part of routine provider and vaccination
- Looking for cases in new areas
- Maintaining momentum: a quiet winter doesn’t mean you can close your grant.
- Drafts in March, 2012 highlight the
- Talking about the problems, including being writing to publish
- Physicians will file for patient on RMRFS unless they have access to the information that has been reviewed by the week

2ND ARIZONA STATEWIDE TRIBAL INDIAN HEALTH SERVICE,
ARIZONA DEPARTMENT OF HEALTH SERVICES,
CENTERS FOR DISEASE CONTROL AND PREVENTION
ROCKY MOUNTAIN SPOTTED FEVER MEETING

CLIFF CASTLE CASINO AND HOTEL
YAVAPAI-APACHE NATION
CAMP VERDE, ARIZONA
NOVEMBER 9, 2012
8:15 AM – 4:30 PM

PREPARED BY
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State Level Support

*Transfer Protocol*

- Tribe
- ADHS
- County
- HOSPITAL
State Level Support

Educational Campaigns

You Can Prevent Rocky Mountain Spotted Fever (RMSF)

**KICK TICKS**

- Know the signs (fever, headache, spots)
- Inspect your body
- Collar dogs
- Kill ticks in yards

Protect Your Family From Rocky Mountain Spotted Fever

**Keep ticks off children**

Ticks can spread Rocky Mountain spotted fever. A tick bite can make you sick. To help you and your family stay healthy, keep ticks off children. Spray children with insect repellent before they go outside.

**Check for ticks on children**

Check these parts of your child’s body for ticks:

- In and around the hair
- In and around the ears
- Inside belly button
- Between the legs
- Under the arms
- Back of the knees

**Tick Control Product List**

A Homeowner’s Guide to Killing Ticks...

- Inside homes
- Outside homes
- On dogs

Health and Wellness for all Arizonans
Moving Forward

• Continuation of **ALL** efforts:
  – RMSF statewide plan
  – Educational campaigns
  – Transfer protocol
  – State surveillance
  – Statewide meetings
Questions?

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