



# **An Introduction to Arizona's Infectious**



# **Diseases**



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### Diseases endemic to Arizona:

- ◆ Hantavirus Infection
- ◆ Plague
- ◆ Psittacosis
- ◆ Tularemia
- ◆ West Nile Virus
- ◆ Coccidioidomycosis (Valley Fever)
- ◆ Legionellosis (several serogroups)
- ◆ Primary Amebic Meningoencephalitis (PAM)
- ◆ Rocky Mountain Spotted Fever (RMSF)

### Diseases not endemic\* to Arizona:

- ∅ Lyme Disease
- ∅ Histoplasmosis

\* Cases may be imported from endemic areas



# Coccidioidomycosis (Valley Fever)

## Why is this important to Arizona?

- **Causes 15%-29% of community acquired pneumonia (CAP) in Arizona**
- Over 7,000 cases reported each year
- The second most commonly reported disease in Arizona

## When is this on my differential?

- Chronic cough, if not responsive to anti-reflux medications
- Community acquired pneumonia
- People who work outside or in dusty conditions
- People who pursue recreational activities in the desert (e.g. biking or driving ATVs)

## What do I need to do?

**CONSIDER** cocci serologic testing for CAP and chronic cough cases

**REASSURE** patients that disease is not contagious person-to-person

**TREAT** confirmed cases with antifungals if severe or systemic infection

**REPORT** confirmed cases to your local health department

The Valley Fever Center of Excellence is available for medical consultation,  
at (520) 626-6517

# Rocky Mountain Spotted Fever



## Why is this important in Arizona?

- RMSF has a 25% fatality rate if not treated within first 5 days of onset
- Tribal communities in Arizona have:
  - ◆ 300x higher incidence than U.S.
  - ◆ 15x higher fatality than U.S.

## When is this on my differential?

- **Patients that live or visit tribal communities**
- Risk factors: exposure to tick infested dogs or tick infested areas
- Fever  $\geq$  2 days and nonspecific sx
  - ◆ Headache
  - ◆ Myalgia
  - ◆ Abdominal Pain
  - ◆ N/V/D
  - ◆ Thrombocytopenia
  - ◆ Hypernatremia
  - ◆ Elevated LFTs



Rash is **not** present in most Arizona cases of RMSF.

# What do I need to do?

**TREAT** patient with fever  $\geq$  2 days from tribal lands empirically with doxycycline

**CONTINUE** doxycycline for 14 days, since most acute tests are negative; order a convalescent titer to confirm the diagnosis

**REFER** to CDC algorithm for treatment recommendations at Arizona Department of Health Services Website

**REPORT** suspect cases to local health department

<http://azdhs.gov/phs/oids/vector/rmsf/providers.htm>

# Plague



## Why is this important in Arizona?

- Endemic in Northern Arizona, Colorado, and New Mexico.
- Cases of bubonic and pneumonic plague have occurred in Arizona
- Pneumonic plague has been acquired from infected animals

## When is this on my differential?

- Patients that report recent outdoor activities in Northern Arizona or other endemic areas
- Risk Factors: exposure to fleas, wild animals, rodent, or to blood or tissues of infected animals (e.g. prairie dogs, mountain lions, rabbits)
- Septic patients with non-descriptive infectious symptoms or lymphadenopathy and fever

## What do I need to do?

**ASK** patient about recent travel history and flea or rodent exposure

**REPORT** suspected cases to your local health department **immediately**

**TREAT** confirmed patients with gentamicin as soon as possible

**NOTIFY** laboratory to ensure proper precautions during testing

<http://azdhs.gov/phs/oids/vector/plague/index.htm>

# Tularemia



## Why is this important in Arizona?

- Endemic cases have been found in rural Arizona and areas at or above 3,000 feet elevation
- Can be potential weapon of bioterrorism
- Hunters have higher risk of contracting Tularemia

## When is this on my differential?

- Patients with travel to rural Arizona
- Patients with history of insect bite, skinning animals, or presenting with lymphadenopathy and fever
- Risk factors: exposure to ticks or flies, exposure to infected animal carcasses, eating or drinking contaminated food or water



## What do I need to do?

**TREAT** confirmed patients with gentamicin as soon as possible

**REFER** specimen to Arizona State Public Health Laboratory for testing

**REASSURE** family and healthcare facility of lack of person to person transmission

**REPORT** immediately to local health department if tularemia is suspected

<http://azdhs.gov/phs/emergency-preparedness/bioterrorism/faqs/a-agents/index.php?pg=tularemia>

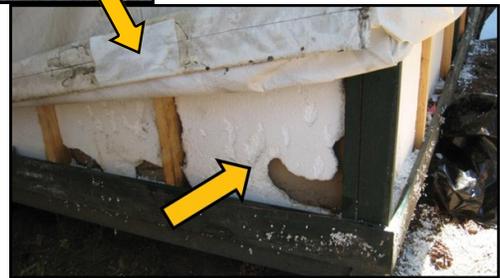
# Hantavirus Infection

## Why is this important in Arizona?

- Occurs year round, found all over Arizona
- > 40% fatality rate in Arizona
- Since 2002, there have been 35 confirmed cases in Arizona (14 deaths)

## When is this on my differential?

- Patients exposed to abandoned buildings, rodent droppings, or rodents
- Febrile patient with bilateral interstitial infiltrates or ARDS and thrombocytopenia



Damage from rodents tunneling in the foam insulation of signature tent cabin

## What do I need to do?

**CONSIDER** diagnosis if patient has respiratory symptoms and exposure to rodents

**CONTINUE** supportive care

**PERFORM** serial CBC and blood chemistries for early detection of fluid shift into the lungs

**REPORT** suspected cases to local health department

<http://azdhs.gov/phs/oids/vector/hantavirus/index.htm>

# Legal Requirements

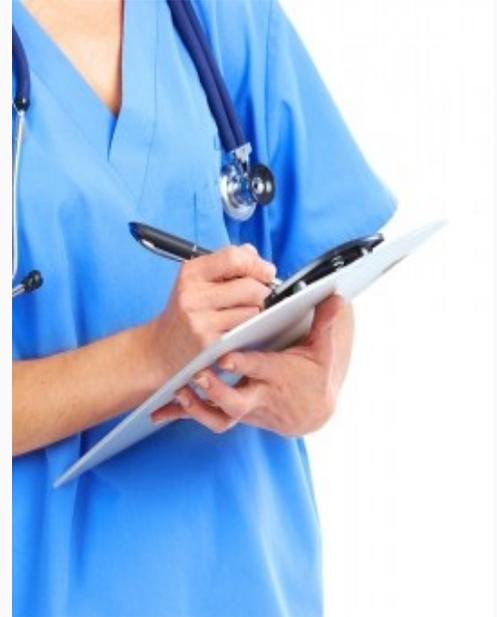
## What should I report?

- There are 89 reportable conditions in Arizona.
- Print out the list at:  
<http://azdhs.gov/phs/oids/pdf/rptlist.pdf>

## Why should I report?

Reporting to Public Health enables us:

- To prevent further disease transmission
- To treat exposed contacts
- To locate and offer prophylaxis to exposed contacts
- To identify and contain outbreaks
- To ensure effective treatment and follow-up of cases
- To alert the health community



**Reporting is required by R9-6-202.**

## How do I report?

**Report to the local health agency by mail, electronically, telephone, or fax.**

**Disease Report Form: [http://azdhs.gov/phs/oids/pdf/forms/cdr\\_form.pdf](http://azdhs.gov/phs/oids/pdf/forms/cdr_form.pdf)**

**Local Health Agencies: <http://azdhs.gov/phs/oids/contacts.htm#L>**

For more information:

Call your local health agency or the Arizona Department of  
Health Services at (602) 364-3676

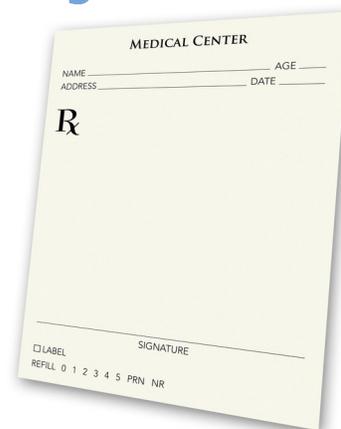
<http://azdhs.gov/phs/oids/reporting/providers.htm>

# Expedited Partner Therapy

## What does Arizona Law say?

Pursuant to A.R.S.§§ 32-1401.27 and 32-854:

allopathic, naturopathic, and osteopathic physicians or physicians assistants are allowed to dispense or prescribe antimicrobial medications to contacts of patients with communicable diseases without an intervening health assessment of the partner.



## Recommendations for EPT

Expedited Partner Therapy (EPT) is the practice of providing an extra dose of medication or a prescription to a patient with a disease (e.g. chlamydia or gonorrhea) to deliver to an exposed partner(s).

In 2005, the Centers for Disease Control and Prevention (CDC) endorsed the use of EPT for partner treatment. In 2008, EPT became legal in Arizona (ARS § 32-1401 (27)(ss)(v)).

- Recommendations for treatment for Expedited Partner Therapy can be found at <http://www.azdhs.gov/phs/edc/odis/std/providers.htm>
- Costs of medications used for partner treatment cannot be charged to your patient's insurance. The cost of medication must be paid by the partner or your patient.



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