



Spotting Patients with Suspected Rocky Mountain Spotted Fever

**Monitoring the transfer of patients with Rocky Mountain spotted fever from tribal lands to
Maricopa County facilities with syndromic surveillance**

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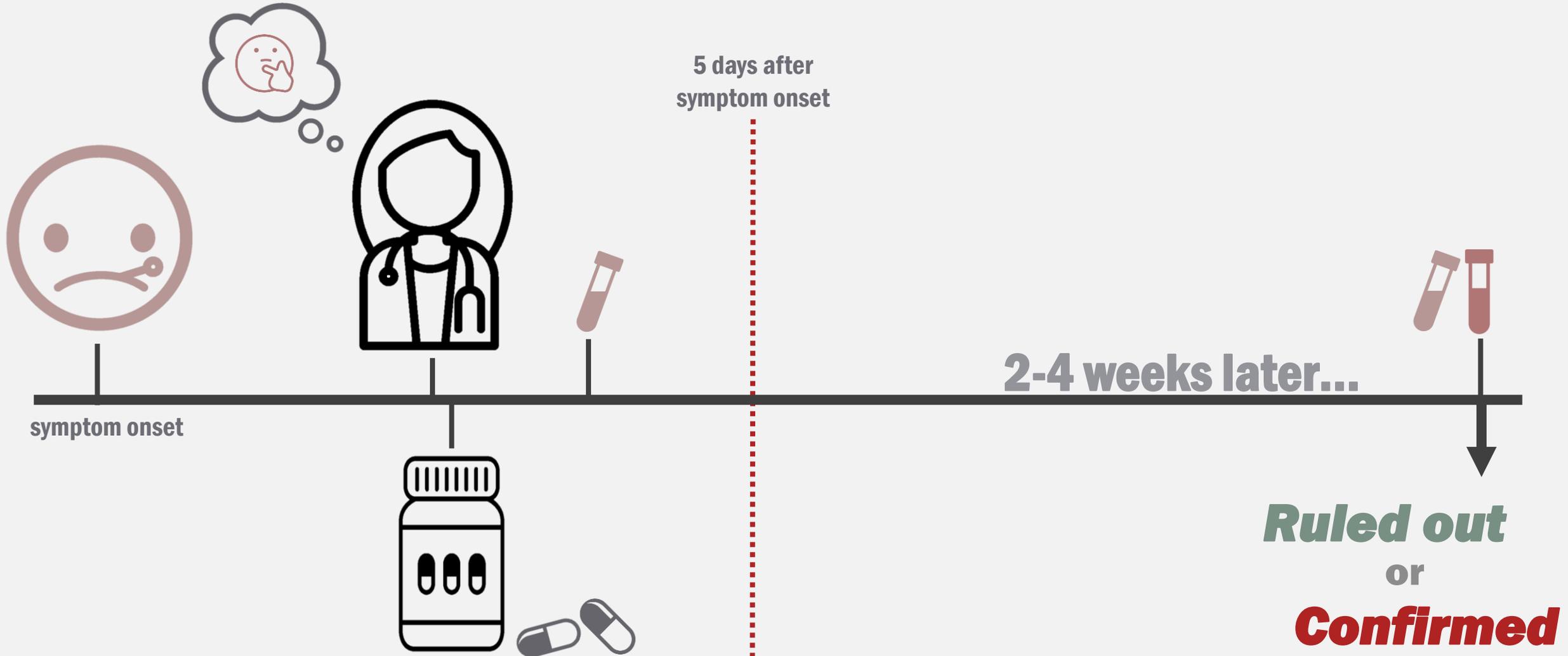


 RMSF is a tick-borne **bacterial** disease 

often causing **non-specific** symptoms



Treatment should begin when RMSF is ***suspected***



RMSF is **unique** in AZ



1 Different tick vectors
Brown dog tick



3 Children account for almost **half** of all cases...

4 ...the overall case-fatality rate is **~7%**.

5
And developing a rash is **not** common.



First locally acquired
RMSF case in Arizona

2003

2009

RMSF endemic
in Eastern AZ

Individual from tribal lands
transferred to MC hospital

2012

2013

RMSF transfer
protocol developed





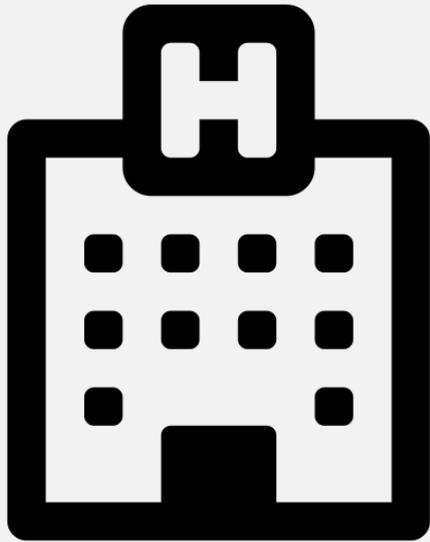
After transfer protocol initiated...

a Communication
improved

b Still **delays** in
notification

➔ **Disruptions in
doxycycline
administration**

Syndromic surveillance solution:



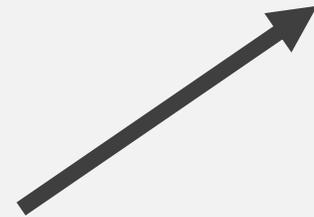
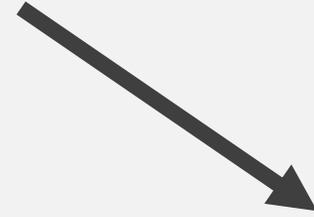


**RMSF
TERMS**

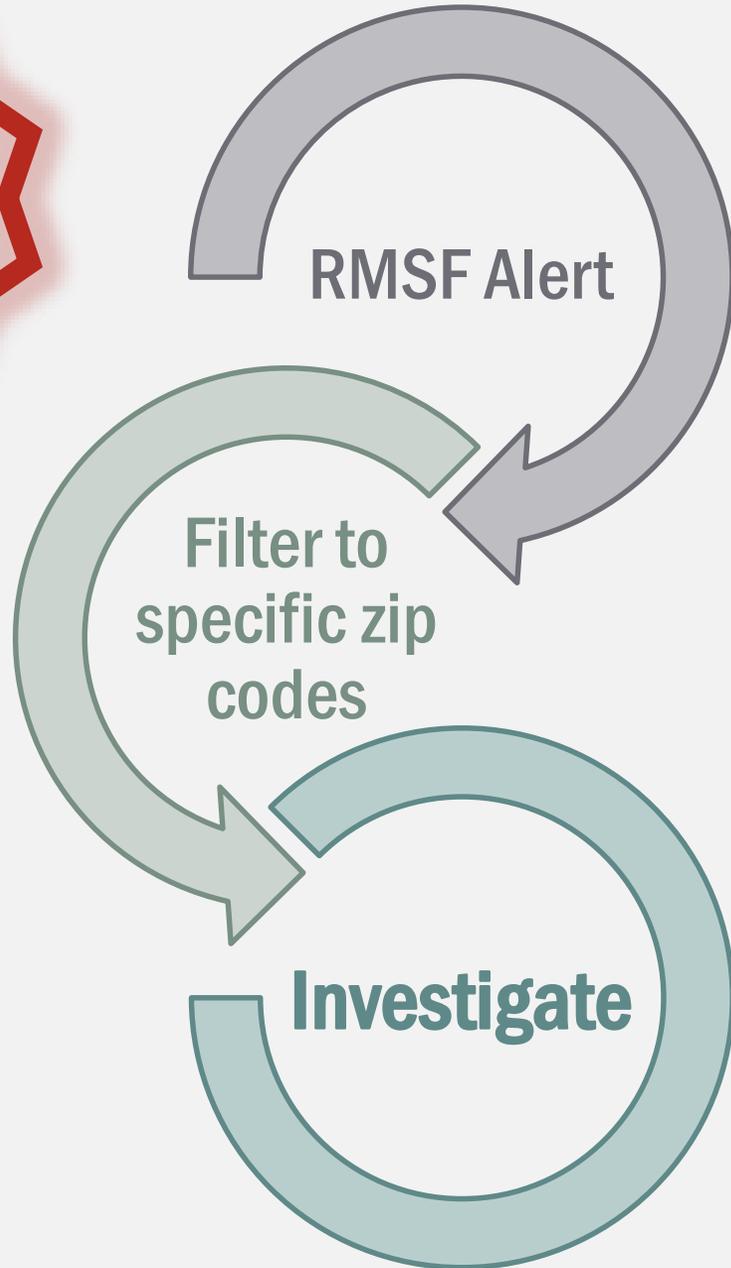
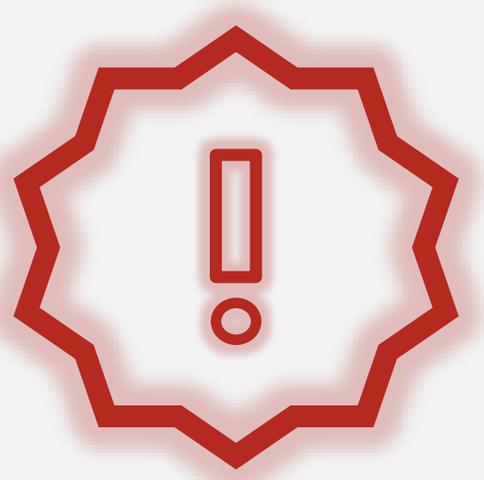
**SYMPTOM
TERMS**

**TRANSFER
TERMS**

**LOCATION
TERMS**



**ROCKY
MOUNTAIN
SPOTTED
FEVER ALERT**

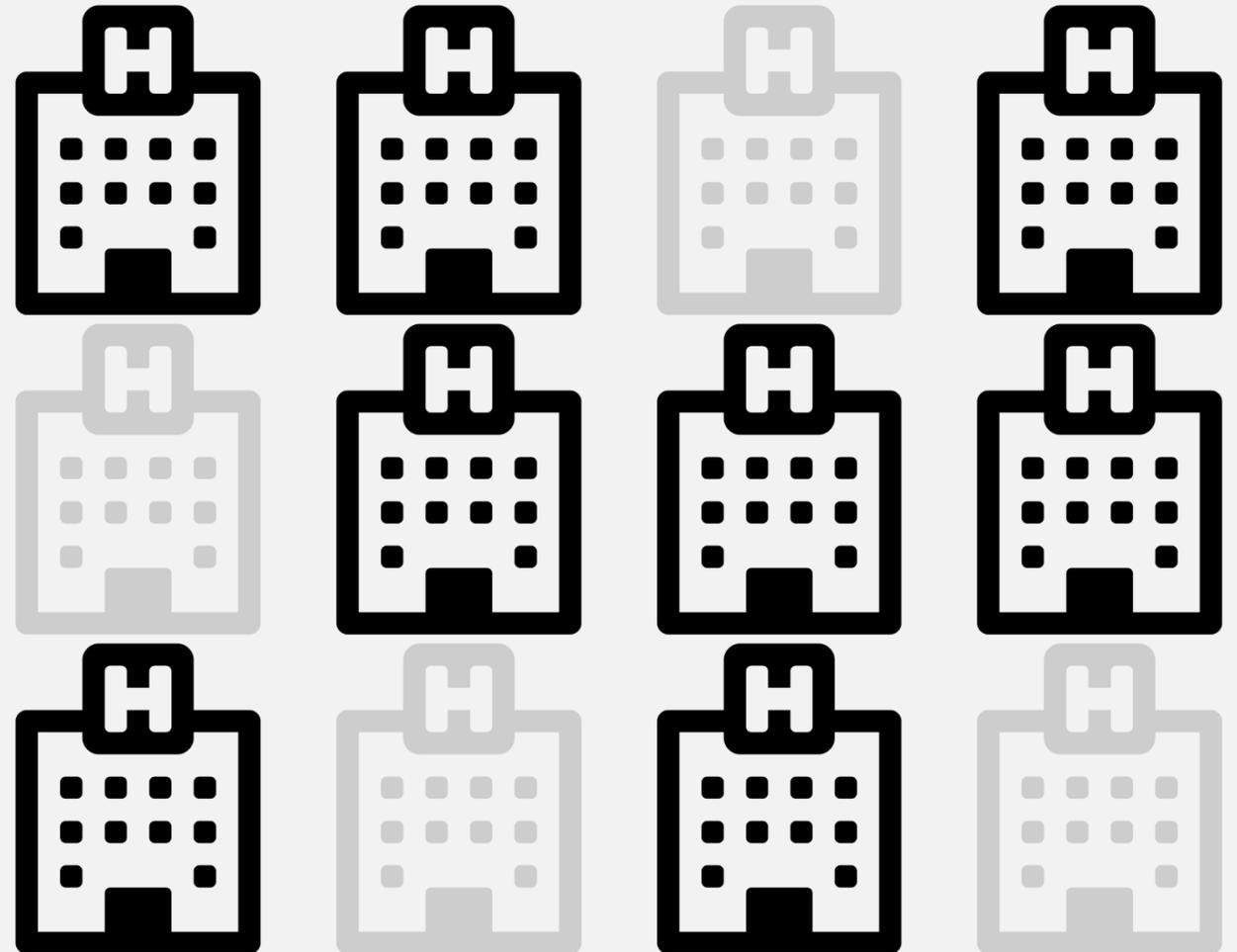


1. Medical record review
2. Determine if high suspect case
3. Ensure RMSF is on differential & recommend the individual is **treated with doxycycline**

Limitation of using Syndromic Surveillance:



Limitation of using Syndromic Surveillance:



Success using Syndromic Surveillance:





EMERGENCY

In June 2018, ESSENCE flagged

⇒ 6 month old presented to hospital with fever, rash, decreased appetite, diarrhea

Upon medical record review...

a Transferred to hospital
2 days prior

b Infant scheduled for
discharge within hours

→ Doxy to be
discontinued





- 1 Call **immediately** placed to hospital
- 2 Explained importance of full doxy course, physician agreed
- 3 Discharged with **full course of doxycycline**
- 4 **Transfer protocol initiated: MCDPH notified**

*accurate portrayal of emotions



An at-risk population was clearly **Identified**

Physician education was provided in
a **timely** manner

Patient care **improved**

The BioSense platform & ESSENCE more than
proved its value –

by helping to
**deliver life-saving
guidance.**

» » Questions? « «

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