

Close Encounters of the Reptile Kind: Two Cases of Enteric Zoonoses in New Mexico

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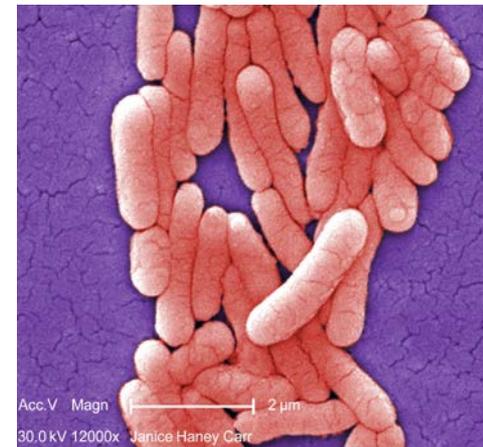
Arizona Infectious Disease Training and Exercise

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Salmonellosis

- *Salmonella* spp. cause 1 million illnesses, 19,000 hospitalizations, and 380 deaths annually in the U.S.
- Cause diarrhea, cramps, and fever 12-72 hours after infection
- Children ≤ 5 , adults ≥ 65 , and the immunocompromised are at greatest risk for severe illness
- Reptiles can carry *Salmonella*, causing an estimated 70,000 cases per year



Case #1

OSTEOMYELITIS IN A CHILD

Salmonella Case #1

- Feb. 2015: NMDOH notified of a young boy hospitalized with salmonellosis
 - Previously healthy, but with developmental difficulties
 - *Salmonella* isolated from ankle wound
- Isolated typed as *Salmonella enterica*, subspecies *houtenae*
- No travel, restaurants, or unpasteurized foods reported
- Family reported owning a pet iguana, which roamed freely around the house

Reptiles in the home

The monitor lizard and box turtle live in tanks, while the iguana roams free.



Iguana



Monitor Lizard



Box Turtle

Sampling

Samples were collected from around the home and in reptile environments.



Sampling Results

Sample Location	Results
Iguana stool	Salmonella IV 21: Z51: - & Salmonella I (completely untypable~ rough)
Monitor lizard water	Salmonella G, serotype Cubana & Salm I 6: -:-, & Salm I (completely untypable ~ rough)
Iguana sunning area towel swab	Salmonella IV 21: Z51: - & Salmonella I (completely untypable~ rough)
Bath tub swab	Salmonella IV 21: Z51: - & Salmonella I (completely untypable~ rough)
Iguana litter box swab	Salmonella IV 21: Z51: - & Salmonella I (completely untypable~ rough)
Turtle water; Iguana sunning area swab; Bed post swab; Iguana cloacal area swab; Iguana flank swab	Salmonella not isolated

Summary

- Boy recovered, returned home
- Lesson in difficulty of isolation
- Challenges in education and communication
 - Pet reptiles should not be allowed free range
- Est. 3% of households own ≥ 1 reptile
 - Pets are important family members



Healthy Herp Handling

Healthy reptiles and amphibians may carry Salmonella germs, which can make people sick. But, there's good news! You can help keep yourself healthy around your pet reptiles and amphibians.

A Most Important Rule

Always wash your hands thoroughly after handling reptiles and amphibians, and anything in the area where they live or roam such as their food or equipment.



Outta the Kitchen

Keep your reptiles and amphibians and their equipment out of the kitchen or anywhere food is prepared or served.



No Nuzzling or Kissing

That's a no-no... you can get germs the way.

Protect the Innocent

Reptiles and amphibians are not recommended for children under the age of five.

Follow these safe handling steps and enjoy your pets.



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Wash hands after reptile contact



Clean surfaces thoroughly



Use care with feeder rodents



Keep reptiles away from those at risk

Case #2

SEPTICEMIA IN AN ADULT



Salmonella Case #2

- Jul. 2014: NMDOH received a *Salmonella* lab for a 70 year old man
 - Medical records revealed he had Stage 4 cancer
- Initial difficulty in reaching family; found out he had died
 - COD: cancer vs. sepsis?
- Blood sampled typed as *Salmonella enterica* subspecies *arizonae*

... So, what was his exposure?

What was his exposure?



Summary

- Animal and human specimens were same serotype and PFGE pattern
- COD was ruled as sepsis due to salmonella
- Case reports of salmonella infections in immunocompromised after ingestion of rattlesnake tablets and meat used as folk remedies
 - HIV+ Hispanic men, young child, individuals with lupus
- Another challenge of communication and education of vulnerable populations

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Any questions?



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