Investigations of Multistate Enteric Illness Outbreaks Linked to Pet Foods

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Enteric Zoonoses Activity
Outbreak Response and Prevention Branch

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CDC Enteric Zoonoses Activity

- Rapid response and management of multistate zoonotic enteric disease outbreaks
  - *Salmonella*
  - *E. coli*
  - Occasionally other pathogens (e.g., *Listeria, Campylobacter*)

- Coordinate efforts of local, state, and federal health officials
  - State and local health departments
  - USDA Food Safety Inspection Service (FSIS) – meat and poultry
  - USDA Animal Plant Health Inspection Service (APHIS)
  - FDA Centers for Veterinary Medicine – animal feed and products
**Salmonella in Dogs and Cats**

- Usually asymptomatic, but not always
- If symptoms:
  - Enterocolitis
  - Abdominal pain
  - Septicemia ("Song Bird Fever" in cats)
- Salmonella isolated
  - 0–3.6% of healthy dogs
  - 0–3.5% of diarrheic dogs
  - 0–8.6% of diarrheic cats
- Higher in shelter animals (>51.4%) and dogs eating raw food diets

Background: *Campylobacter* in Dogs

- Dogs can be carriers of *Campylobacter*
- Dogs in crowded conditions are likely to be infected
- When clinical infections occur they are often in puppies
- Dogs with suspected *Campylobacter* infection are treated supportively
- In severe cases antibiotics are usually selected without culture
Pet Food and Treats

• Many pet owners feed dogs and cats dry pet food
• Pet foods and treats contain foods of animal origin
  – At risk for *Salmonella* contamination
• Pet food not manufactured to be a sterile product
• The Federal Food, Drug, and Cosmetic Act (FFDCA) requires animal foods:
  – Be safe to eat
  – Produced under sanitary conditions
  – Contain no harmful substances
  – Truthfully labeled

Title 21 Code of Federal Regulations, Part 113 (21 CFR 113)
Campylobacter and Pet Food

- *Campylobacter* has been isolated from raw pet foods
  - Poultry
- Dogs fed raw pet foods more likely to shed bacterial pathogens
Pet Products – Outbreaks in US & Canada

- *Salmonella* Infantis
  - Pig ear dog treats
    - J Clin Microbiol 2001;39:3962-8
- *Salmonella* Thompson
  - Beef/salmon dog treats
    - MMWR 2006;55:702-5
- *Salmonella* Schwarzengrund
  - Dry dog and cat food, 2006–2008
    - MMWRs 2008; 57:521-524 and 2008;57:1200-1202
    - Pediatrics 2010;126(3): 477-483
- *Salmonella* Infantis,
  - Dry pet food, 2012
    - MMWR 2012; www.cdc.gov/salmonella
Raws For Paws Recalls Turkey Pet Food Because of Possible Salmonella Health Risk

For Immediate Release
February 8, 2018

Contact
Consumers
Raws for Paws
612-465-0372

Announcement
Raws for Paws of Minneapolis, MN is recalling approximately 4,000 pounds of its 5 lb. and 1 lb. chubs of Ground Turkey Pet Food because they have the potential to be contaminated with Salmonella. Salmonella can affect animals eating the product and there is risk to humans from handling contaminated products, especially if they have not thoroughly washed their hands after having contact with the products or any surfaces exposed to these products.

Healthy people infected with Salmonella should monitor themselves for some or all of the following symptoms: nausea, vomiting, diarrhea or bloody diarrhea, abdominal cramping and fever. Rarely, Salmonella can result in more serious ailments, including arterial infections, endocarditis, arthritis, muscle pain, eye irritation, and urinary tract symptoms. Consumers exhibiting these signs after having contact with this product should contact their healthcare providers.

Pets with Salmonella infections may be lethargic and have diarrhea or bloody diarrhea, fever, and vomiting. Some pets will have only decreased appetite, fever and abdominal pain. Infected but otherwise healthy pets can be carriers and infect other animals or humans. If your pet has consumed the recalled product and has these symptoms, please contact your veterinarian.

The recalled Ground Turkey Pet Food was distributed throughout Minnesota, Wisconsin, and Iowa directly to consumers and through online mail orders.
Safe Handling Instructions

This product was prepared from inspected and passed meat and/or poultry. Some food products may contain bacteria that could cause illness if the product is mishandled or cooked improperly. For your protection, follow these safe handling instructions.

Keep refrigerated or frozen.
Thaw in refrigerator or microwave.

Keep raw meat and poultry separate from other foods. Wash working surfaces (including cutting boards), utensils, and hands after touching raw meat or poultry.

Cook thoroughly.
Keep hot foods hot. Refrigerate leftovers immediately or discard.
Procedure for Identifying from Pathogens in Patients and Product

- Human clinical isolates
- Dog stool specimens
- Opened bags of dry dog food
- Environmental samples from Production Plants
- Unopened bags of dog food
Recalls and Withdrawals

- January–October 2018
  - 33 Recalls or Withdrawals
    - 18 (55%) raw pet food
    - 5 products had >1 pathogen isolated

https://www.fda.gov/animalVeterinary/safetyhealth/recallswithdrawals/default.htm
Pathogens Associated with FDA Recalls and Withdrawals, January–October 2018* (n=33)

*Includes foods with >1 pathogen found
https://www.fda.gov/animalVeterinary/safetyhealth/recallswithdrawals/default.htm
Multistate Outbreak of Multidrug-Resistant *Campylobacter* Infections Linked to Contact with Pet Store Puppies—United States, 2017

- Large, multistate *Campylobacter* illness outbreak linked to puppies
- No single source of infection, but likely disseminated throughout the industry
- Outbreak strain is resistant to common first-line antibiotics used to treat *Campylobacter* infections
- Highlights antibiotic resistance and the need for ongoing antibiotic stewardship
Pet Food Testing during *Campylobacter* Illness Outbreak linked to Pet Store Puppies

- Pet food collected during investigation
  - Retail Chain P sold commercial dog food products
- Tested at FDA Veterinary Laboratory Response Network (Vet-LIRN) laboratory in Ohio
  - Pet food testing did not yield pathogens
Communication and Laboratory Collaborations

- Anticipated pet owners interested in testing pets
- Developed “information for pet owners” and “information for veterinarians” websites
  - Clinical presentation, prevention, reporting, testing
- Provided animals and pet food testing information
  - Contact information of American Association of Veterinary Laboratory Diagnosticians (AAVLD) on outbreak website
- FDA Vet-LRN offered to test any dogs and cats from case-patient’s home at no cost
A healthy diet is important for everyone, even your pets! When picking out the right food for your pet, there are important things to consider.

Raw pet foods can make pets and people sick

CDC does not recommend feeding raw diets to pets.

Germs like Salmonella and Listeria bacteria have been found in raw pet foods, even packaged ones sold in stores. These germs can make your pets sick. Your family also can get sick by handling the raw food or by taking care of your pet.

What about dry and canned pet food?

Dry and canned pet food also can be contaminated with germs. Before making any changes to your pet’s diet, talk with your veterinarian.
Thank you!

For more information, contact CDC
1-800-CDC-INFO (232-4636)

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.