

Should dogs that participate in animal-assisted activity and therapy programs be prohibited from consuming raw diets?

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Background. Animal-assisted activity and therapy (AAA/T) programs often involve the interaction of pets with immuno-deficient populations. The advisability of feeding raw meat and/or poultry to participating animals remains a highly contentious issue, in spite of increasing evidence that raw diets are frequently contaminated with *Salmonella* spp. We set out to determine if consuming raw meat/poultry influences the risk of AAA/T dogs shedding *Salmonella* spp and other select pathogens.

Methods. Two hundred healthy dogs that participate in AAA/T in Ontario and Alberta were enrolled. Between May 2005 and November 2006, fecal specimens were collected from each dog every 2 months for 1 year, along with a brief log of places visited, antimicrobial use within the home, dog health status and diet. Specimens were cultured for *Salmonella* spp, methicillin-resistant *Staphylococcus aureus* (MRSA), vancomycin-resistant enterococci (VRE), multidrug-resistant *E. coli* and *Clostridium difficile*.

Results. Dogs that consumed raw meat/poultry (n = 33) were significantly more likely to test positive for *Salmonella* spp at least once during the year than dogs that did not (relative risk [RR] = 9.6, 95% confidence interval [CI] 4.94 – 18.76). Raw diet consumption was also significantly associated with shedding multidrug-resistant *E. coli* (RR = 5.98, 95% CI 3.67 – 9.74). No link between antimicrobial use and multi-resistant *E. coli* was found, nor was any association between *C. difficile*, MRSA or VRE and consumption of raw diets.

Conclusion. Dogs that participate in AAA/T should be prohibited from consuming raw meat and poultry, particularly if interacting with infants, the elderly and the immuno-compromised.

Biography:

Sandra Lefebvre is a veterinarian and PhD candidate in Epidemiology at the Ontario Veterinary College. Through her past veterinary experience and her involvement in animal-assisted activities, Sandra developed an interest in the potential interplay between companion animal zoonoses and immuno-deficient human populations. The aim of her research is to elucidate the risks of infection - both to and from dogs - associated with canine visitation of hospitalized people.
