





## Evidence Summary Table

**Key Question:** What role do pets or other animals play in gastrointestinal infection outbreaks?

Ref. List # Author/Year ID#	Participants, Intervention (or exposure), Methods and Outcome Measures	Results	Conclusions and Comments: Strength of Design, Quality and Directness of Evidence
<p>Wong, T., Thom, K., Nicol, C., et al 2006 Journal of Applied Microbiology</p> <p>Lab study</p>	<p>600 samples of pet chews were analysed (300 domestically produced and 300 imported) for the presence of salmonella.</p> <div style="text-align: center;">  <p>Adobe Acrobat Document</p> </div>	<p>Salmonella was not isolated from pet chews derived from chicken or sheep by-products, but was isolated from samples of beef bones (71%), bull pizzles (17%) pork rawhide (4.2%) and unspecified raw hide (7.7%).</p>	<p>Pet chews are sources of Salmonella that could potentially infect pets, and humans are at risk of exposure either directly by contact through handling or inadvertent cross-contamination to food contact surfaces or food in the home environment.</p> <p>High quality Direct effect Moderate strength</p>
<p>Pickering, L., Morano, N., Bocchini, J. et al</p> <p>Literature Review (summary) Paediatrics 2008</p>	<p>77 articles reviewed to summarize information regarding emerging and reemerging infectious diseases, associated with exposure to nontraditional pets in the home and to animals in a variety of public settings, (2) outline regulations and recommendations applicable to these exposures, and (3) define measures to minimize or</p>	<p>Parents need to be educated about the increased risks of exposure to nontraditional pets and animals in public settings for infants and for children younger than 5 years and for immunosuppressed people of all ages and should be made aware of the general recommendations for reduction of risks of infection</p>	<p>Good hand hygiene before and after handling any pets or non-traditional animals, close supervision by parents for children under 5</p> <p>Methodology of each article reviewed not discussed (weak) however results were</p>

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	<p>prevent illness in children from exposure to these animals and cite resources for additional information for health care professionals and families</p>  <p>Adobe Acrobat Document</p>		<p>consistent across all articles and discussion is thorough</p>
<p>Steimuller, N., Demma, L., Bender, J., et al</p> <p>2006 Descriptive review Clinical Infectious Disease</p>	<p>55 outbreak reports associated with animals from 1991-2005 reviewed. Total of 1175 cases – (mean = 21.4 cases/outbreak) information on hospitalisation obtained for 35/55 outbreaks total of 163 hospitalisations (mean=4.7 per outbreak) Most of the reported outbreaks were caused by <i>E. coli</i> O157 or <i>Salmonella</i> species. Also reviews impact of IC practices during a few specific outbreaks</p> <p>Majority of outbreak reports from CDC</p>  <p>Adobe Acrobat Document</p>	<p>An increased number of outbreaks of enteric disease associated with animals in public settings, such as fairs and petting zoos, have been reported between 1991-2005 in the United States. The most common enteric pathogens that cause illness in this setting include <i>E. coli</i> O157 and <i>Salmonella</i> species.</p>	<p>Disease transmission is associated with direct and indirect contact with animals and their environment and that it can be prevented by hand washing and educating the population about the risks associated with attending animal venues.</p> <p>Clear effect Sufficient number of studies Evidence is extrapolated Effect is clinically meaningful</p>
<p>Mermin, J., Hutuagner, L., Vergia, D., Shallow, S. et al</p> <p>Case/control 2004</p>	<p>463 cases interviewed and included 7618 controls included Univariate analysis used to evaluate percentage of cases and controls who had exposure to reptiles</p>	<p>persons with <i>Salmonella</i> infection were more likely than controls to report having a reptile or amphibian in their home (7% vs. 4%; OR, 2.1; 95% CI, 1.5–3.0) or touching a reptile (5% vs. 3%; OR, 1.7; 95% CI, 1.1–2.5) (table 1). <i>Salmonella</i> infection was</p>	<p>Quality – high Direct evidence Design Mod</p>

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Clinical Infectious Disease	 Adobe Acrobat Document	specifically associated with having a snake, non-iguana lizard, or amphibian in the home, but not with having a turtle or iguana. Other risks (19) controlled for	

<b>Text Summary For Key Question</b>
<p><b><u>Recommendation:</u></b></p> <p><b>Animals or pets may provide a source for a GI outbreak via direct or non direct contact. Patients/residents/clients should not be in contact with pets/animals who are unwell. Animals or pets should not be in an area where food or drink is prepared or served. Diligent hand hygiene practices are recommended before and after handling any animal, pet or providing any form of food ( eg. Treats) to them. It recommended that reptiles and/or amphibians not be housed or allowed to visit any type of health care facility</b></p> <p style="text-align: right;">Evidence Grade B11</p> <p><b><u>Rationale for evidence grade rating:</u></b></p> <p>Direct evidence from multiple moderate-design studies design studies of high quality with consistency of results</p>