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DOI: 10.3201/eid1707.110572

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Comment on Zoonoses in the Bedroom

To the Editor: In response to Chomel and Sun (*1*), we would like to correct potentially misleading representations of risk factors for parasitic diseases. The authors correctly described risk for Chagas disease from exposure to infected insect vectors but included Chagas disease in the table, "Zoonoses acquired by close contact with pet, 1974–2010." The bloodborne protozoan that causes Chagas disease is transmitted not by contact with an infected mammal but by contact with a vector insect that has bitten an infected mammal (*2*).

For some parasitic zoonoses, contact with pets may not be a major source of infection. Molecular studies indicate that risk for human infection with *Giardia* and *Cryptosporidium* spp. from dogs and cats may be lower than previously believed. Infections with these parasites are usually with species-specific genotypes. Human infections with assemblages C, D (dog specific), and F (cat specific) of *G. duodenalis* have not been confirmed. Infections with assemblages A or B have been reported for humans and other animal species, including dogs and cats, but no direct transmission has been documented (*3*,*4*). Most human cryptosporidial infections are caused by *C. hominis* and *C. parvum* (*5*); a smaller percentage are caused by *C. canis* and *C. felis.*

Human infection with *Toxocara canis* or *T. cati* occurs when embryonated eggs are ingested; however, embryonation requires 2–4 weeks in the environment, suggesting that the risk from eggs in pet fur may be less than risk from exposure to eggs in contaminated soil. Other more serious zoonotic parasitic disease risks from contact with pet feces, including toxoplasmosis, are mentioned only briefly, if at all.

Physicians need information that accurately communicates zoonotic parasitic disease risks to their patients. However, inaccurate or overstated risk communication can also lead to unnecessary prevention efforts and misdirected concerns about dogs and cats as sources of disease.

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DOI: 10.3201/eid1707.110317

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In Response: We agree with Montgomery et al. (*1*) that Chagas disease is not directly transmitted by dogs to humans. However, we emphasize that Chagas disease is in the southern United States even if risk for infection is extremely low. A study in Mexico found direct correlation of seropositivity between humans and dogs, suggesting that testing dogs may help identify prevalence of *Trypanosoma cruzi* infection among humans. They stated, "Dogs may be domestic reservoir hosts and help maintain human transmission of *T. cruzi*" (*2*).

For toxocariasis, indeed only embryonated eggs are infectious. In a study in the Netherlands (*3*), ≈25% of *Toxocara* eggs found on fur were fertilized, but none were viable after 6 weeks; presence of embryonated eggs on dog fur is uncommon but can occur.

We did not mention all zoonoses that could be transmitted in a bedroom, such as toxoplasmosis or ringworm, because we could not identify publications specifically documenting contamination in that environment. We can, however, cite examples of other infections, such as *Cheyletiella blakei* dermatitis in a woman who shared her bed with a recently acquired cat (*4*). We also reiterate the potential risk for human infection by the plague bacillus (*Yersinia pestis*) as a result of bed sharing, as illustrated by the case reported from Oregon in 2010 (*5*).

Although the risk of contracting a zoonosis in the bedroom is low, it remains possible. Bed sharing with pets should be avoided, especially for those who are immunocompromised, young, or elderly.

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DOI: 10.3201/eid1707.110590

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References were misnumbered in the article Complete Sequence and Molecular Epidemiology of IncK Epidemic Plasmid Encoding $bla_{CTX\text{-}M\text{-}14}$ (J.L. Cottell, et al.). The article has been corrected online (http://www.cdc.gov/eid/content/17/4/645.htm).

etymologia

Melioidosis

[me″le-oi-do′sis]

From the Greek *melis*, distemper of asses, *oeidēs*, resemblance, and *osis*, a suffix indicating an abnormal condition or disease. Alfred Whitmore, a British pathologist serving in Burma, and his assistant C. S. Krishnaswami first described melioidosis in 1912. The infection became known as Whitmore's disease. In 1925, Ambrose T. Stanton and William Fletcher, the researchers who identified *Burkholderia pseudomallei* as the infection's causative agent, renamed the infection melioidosis because of its clinical resemblance to glanders.

Source: Dorland's Illustrated Medical Dictionary. 31st edition. Philadelphia: Saunders, 2007; Stanton AT, Fletcher W. Melioidosis, a disease of rodents communicable to man. Lancet. 1925;205:10–3. doi:10.1016/S0140-6736(01)04724-9