Medical Xpress

When it comes to transmission of MRSA and C. difficile, dogs are not necessarily man's best friend

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In a letter to the Editor of the *Journal of Hospital Infection*, published by Elsevier, S. Lefebvre and J.S. Weese from the University of Guelph in Canada describe a study that investigated whether MRSA and *C.difficile* could be passed between pet therapy dogs and patients. The findings suggested that MRSA and *C. difficile* may have been transferred to the fur and paws of these canine visitors through patients handling or kissing the dogs, or through exposure to a contaminated healthcare environment.

This study was conducted amongst 26 pet therapy dog-handler teams between June - August 2007. Twelve teams visited acute care facilities and 14 visited long-term care facilities. Prior to each visit, the dog's forepaws and their handlers' hands were tested for MRSA, vancomycin-resistant enterococci and *C.difficile.* In addition, the investigator sanitized her hands, handled each dog, and then tested her hands for the same pathogens. Testing was repeated on departure from the facility. The dog-handler teams were observed at all times during the visits and all interactions with patients and staff were closely monitored.

None of the tested pathogens were found on the hands of the investigator or the handlers or the paws of the pet-therapy dogs prior to these visits. However, after visiting an acute care facility, one dog was found to have *C.difficile* on its paws. When the investigator's hands were tested after handling another dog that had just visited a long-term care facility, MRSA was detected, suggesting the dog had acquired MRSA on its fur.

The dog that acquired *C.difficile* had politely shaken paws with many of the patients. The dog found to have acquired MRSA on its fur, had been allowed onto patient's beds and was seen to be repeatedly kissed by two patients.

Finding MRSA on the hands of the investigator who petted a dog after its visit to the long-term facility suggests that dogs that have picked up these pathogens can transfer them back to people. Even transient contamination presents a new avenue for transmission, not only for the pathogens evaluated in the study, but potentially for others such as influenza and norovirus.

The authors conclude that in order to contain the transmission of pathogens through contact with pet therapy animals, all patients and handlers should follow recommended hand sanitation procedures; as for the dogs, perhaps it's time they learn how to clean themselves after contact with humans!

More information: "Contamination of pet therapy dogs with MRSA and Clostridium difficile" by S.L Lefebvre and J.S. Weese, appears in the *Journal of Hospital Infection*, doi:10.1016/j.jhin.2009.02.019 published by Elsevier on behalf of the Hospital Infection Society. www.elsevier.com/locate/jhin

Source: Elsevier