PREVALENCE OF METHICILLIN-RESISTANT STAPHYLOCOCCI IN A NORTHERN COLORADO ANIMAL SHELTER. EN Gingrich, T Kurt, R Ruch-Gallie, MR Lappin. Colorado State University, Fort Collins, CO.

Methicillin-resistant *Staphylococcus aureus* (MRSA) and *S. pseudintermedius* (MRSP) are recognized as significant pathogens in veterinary medicine. To date there have been no studies examining MRSA or MRSP colonization rates in animal shelters in the United States. There is potential for animals to serve as a source of MRSA or MRSP re-infection in humans. The purpose of the study was to determine the prevalence of MRSA and MRSP colonization in cats and dogs housed in a northern Colorado animal shelter.

Nasal and perianal swabs were collected from 200 cats and 200 dogs in an open admission shelter. This included 100 cats and 100 dogs housed in respective stray wards and 100 cats and 100 dogs available for adoption. Samples from each animal were pooled and inoculated on selective media to isolate MRSA/MRSP. Antimicrobial sensitivity was confirmed via Kirby-Bauer disc diffusion. Overall MRSA/MRSP prevalence rates and prevalence rates by subgroup for MRSP were calculated.

MRSA (0.5%) or MRSP (3%) samples were isolated from dogs. The MRSA dog was housed in the stray ward. Of the MRSP, 33% (2/6) were obtained from dogs housed in the stray ward while 66.7% (4/6) were obtained from dogs on the adoption floor. The length of stay at the time of sampling for the MRSP dogs ranged from 1 to 8 days. The MRSA (0.5%) isolated from a cat was from a 3 month old kitten housed in the stray ward.

Results reveal a low prevalence of MRSA and are consistent with previous findings of 1-2% prevalence in dogs and cats in animal hospitals. The MRSP results were slightly higher than the 0-2% prevalence reported in other canine studies. The cat colonized with MRSA was housed with 4 MRSA negative littermates. These results suggest animals housed in a regularly cleaned shelter environment are not at greater risk of acquiring MRSA/MRSP and pose no more risk to adopters than animals in the general population.

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