

FOCUS



What Is on Your Stethoscope?

This prospective observational study examined stethoscopes as a potential source of nosocomial infections for veterinary patients. Bacterial cultures were taken from 10 participants' stethoscopes q1wk for 3 weeks. Then, cultures were obtained from the same participants' stethoscopes immediately before and after cleaning with 70% isopropyl alcohol q1wk for 3 weeks. Cleaning the stethoscope diaphragm with alcohol effectively eliminated bacteria after cleaning but did not decrease the frequency of contamination found before cleaning. Cultures were positive for 67% of samples during the first part of the study, and for 60% of samples obtained before daily cleaning during the second part of the study. Organisms cultured included normal skin flora, opportunistic infectious agents, and potential pathogens. Most isolates were normal skin inhabitants of dogs and cats, suggesting that organisms can be transmitted from patient fur to stethoscopes during auscultation.

Bacillus was the only genus repeatedly recovered from the same stethoscope for >2 consecutive weeks; it did not persist on

stethoscopes after cleaning with isopropyl alcohol. Also isolated were methicillin-resistant *Staphylococcus intermedius*, of which infections are reportedly increasing in dogs. Other potential antimicrobial-resistant species, including *Escherichia coli* and *Enterococcus faecium*, were isolated. Although daily cleanings did not reduce prevalence of contamination in precleaning culture samples, cleaning stethoscopes after use on patients infected with pathogenic bacteria and before use on immunocompromised patients may decrease the risk for transmission of nosocomial infections.

■ Commentary

I think my stethoscope is about 20 years old and has been transferred from the pocket of a dirty clinic coat to a clean one without a thought of ever cleaning it—until now! How many of us have done the same thing? Actually, the problem probably goes deeper than this; we just do not know how extensive nosocomial infection is in veterinary medicine because we have never really looked for it systematically. We are, of course, aware of the problem in

human medicine. It has been conservatively estimated that each year in the United States 1.7–2 million patients develop hospital-acquired infections, nearly 100,000 of which result in death. We know the importance of washing our hands—and, if necessary, wearing gloves—but what else should we be doing? The British National Health Service banned the wearing of neckties, jewelry, and watches by doctors in 2006 because of their potential role as fomites. Scrubs should not be worn outside the hospital, yet I regularly see staff at a nearby human hospital go to work or a nearby sandwich shop in their scrubs. Last week I bumped into one of our graduates at a local plant shop wearing her surgical scrubs. Is this important? I honestly do not know, but it certainly merits consideration.—

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■ ■ Source

Bacterial contamination of stethoscope chest pieces and the effect of daily cleaning. Fujita H, Hansen B, Hanel R. *JVIM* 27:354-358, 2013.

RESEARCH NOTE:
Marijuana Derivative for Canine Glaucoma

Controlling intraocular pressure (IOP) is the main goal of glaucoma treatment; it preserves comfort and slows the progression of optic neuropathy. While various medical and surgical treatments exist, none are always effective. Delta-9 tetrahydrocannabinol (THC), derived from the cannabis plant (ie, marijuana), is known to lower IOP. The present study evaluated the efficacy of a 2% THC ophthalmic solution in lowering IOP and aqueous humor flow rate (AHFR) in clinically normal dogs. Sixteen client-owned dogs were randomly assigned to 1 of 2 treatment groups.

Either 2% THC or a control solution was instilled in 1 eye q12h for 9 doses. IOPs and AHFR were measured in the morning and evening at baseline and after treatment completion. Mean morn-

ing IOPs were 15.86 mm HG at baseline, 12.54 mm Hg in the THC group, and 13.88 mm HG in the control group; mean evening IOPs were 13.69 mm HG, 11.69 mm HG, and 12.13 mm HG, respectively. THC reduced morning IOP by 21% and evening IOP by 15%; however, there was no significant reduction in AHFR. These results indicated that THC's effect on IOP is similar to that of conventional topical glaucoma therapies. The magnitude of the IOP decrease varied between dogs: 4 exhibited a >30% decrease, 6 had decreases between 5% and 30%, and 6 had slight or no decrease. Further study is warranted to determine if the effect is more robust in dogs with glaucoma.

■ ■ Source

Effects of a topically applied 2% delta-9-tetrahydrocannabinol ophthalmic solution on intraocular pressure and aqueous humor flow rate in clinically normal dogs. Fischer KM, Ward DA, Hendrix DVH. *AM J VET RES* 74:275-280, 2013.