

Antibiotic Use Study in U.S. Small Animal Dental Referral Practices

OVERVIEW AND BENEFITS OF PARTICIPATION

Why should we conduct an antibiotic use (AU) study for small animal dental referral practices?

Currently, no national estimates of AU exist in small animal dental referral practices. A national AU study in small animal dental practices will allow identification of situations in which antibiotics are used that may be contributing to antibiotic-resistant infections in cats and dogs. The International Society for Companion Animal Infectious Diseases has published AU guidelines for canine superficial bacterial folliculitis and for canine and feline urinary tract and respiratory tract disease.¹⁻³ There are no guidelines for AU in veterinary dentistry. This study will help development of such guidelines and highlight opportunities to improve care.

What are the goals of this study?

The goal of this study is to establish an estimate of AU in U.S. small animal dental referral practices and to describe how and why antibiotics are prescribed to dogs and cats undergoing dental procedures. This information will be used to identify antibiotic stewardship (AS) objectives, define interventions to improve prescribing, and track progress.

What will be required of me if I participate in the study?

Each participating practice should identify a primary point of contact (facility coordinator) for this study. This person, or a designated team, will be responsible for:

- Obtaining clinic leadership/owner approval or local ethics approval (Institutional Review Board (IRB), Institutional Animal Care and Use Committee (IACUC)), if applicable
- Completing a facility survey (e.g., AS, infection control, AU)
- Attending an online training session
- Entering data about the first 10 patients undergoing a dental procedure, beginning on October 2, into an online data collection tool
- Completing a short evaluation of the study process
- Communicating with the research team for data validation and other study coordination

The time commitment for participation is expected to be 1 hour for an online training, 1–3 hours for data entry, 30 minutes for pre- and post-surveys, and follow-up communication with the research team for data validation.

What will be provided to me?

A pre- and post-study survey, data collection tool, data dictionary, standard operating procedures (SOP) for data collection, and online training session will be provided to participating facilities. Study personnel will be available for assistance.

How will participation benefit my practice?

Join with other practices to establish an AU estimate for U.S. small animal dental referral practices. Through this approach, many hands make light work. In addition, each participating facility will gain experience reviewing AU data and using protocols that can be used internally for continued AU tracking and improvement of facility-level prescribing. Increase awareness of AS practices and opportunities, and receive online access to an AS resource toolkit, including a Handbook of AS in Companion Animal Veterinary Settings, customizable commitment posters, AU tracking tool, an antibiotic time-out worksheet, AU talking points, and more. **A free continuing education webinar will be offered to the facility coordinator(s).**

Should I be concerned about data privacy?

Data will be collected in a secure software system, called REDCap. Data identifying client or veterinary team members will not be collected. Participating facilities cannot see data from other participating facilities. Any report published or presented as a result of this study will not include any information that will make it possible to identify a patient or facility. UMN IRB deemed this research “Not Human Research” and UMN IACUC deemed this research exempt from review because we are not collecting sensitive information about patients, clients, or veterinary staff and there is no interaction with animals or animal specimens.

How is this project funded?

Funding for this project is being made possible by the U.S. Food and Drug Administration (FDA) through grant number 1U01FD007061-01. Individual participating facility data are not shared with FDA.

What is the timeline, and how do I participate?

- **July – October 2023:** Practice recruitment. Participating practices will sign the consent form, receive training in data collection, and complete a facility survey about practice activities regarding AS, infection control, and AU.
- **October 2 – November 30, 2023:** Enter data and complete post-study evaluation.

To participate or ask questions, contact the study team at: cavsnet@umn.edu.

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Additional information can be found at: <https://arsi.umn.edu/dentalpps>

References

1. Hillier, Andrew et al. *Vet Dermatol* (2014)
2. Lappin, M. R. et al. *J Vet Intern Med* (2017)
3. Weese, J. Scott et al. *Vet J* (2019)

