Point-Prevalence Survey of Antibiotic Use in U.S. Small Animal Clinics and Hospitals

OVERVIEW AND BENEFITS OF PARTICIPATION

What are point-prevalence surveys and why are they important?

In public health, the **point-prevalence survey (PPS)** approach has been used to establish national estimates of **antibiotic use (AU)** in acute care and long-term care settings.[1-3] PPS is used to determine the percent of a population that has a disease, or is receiving a treatment, at a single point in time. The PPS approach has been used to estimate the percent of hospitalized human patients who are receiving an antibiotic on any given day, or, put another way, the prevalence of antibiotic use. A national estimate is made by compiling a single day of data from many individual facilities, including antibiotic type, drug class, and reason for use.

Why should we conduct a national AU PPS for small animal veterinary medicine?

Currently, no national estimates of AU exist in small animal medicine. A national AU PPS in small animal medicine 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 (ISCAID) has published AU guidelines for canine superficial bacterial folliculitis and for canine and feline urinary tract and respiratory tract diseases.[4-6] However, without AU data, we cannot determine how well the profession is adhering to these guidelines and whether we are improving over time. By using the PPS methodology, we can compile uniform data from many clinics, providing a snapshot of prescribing practices and highlighting opportunities to improve care.

What are the goals of this national PPS?

The goal of this study is to establish a national estimate of AU in general and referral small animal clinics and to describe how and why antibiotics are prescribed to small animal patients. This information will be used to identify antibiotic stewardship (AS) objectives, define interventions to improve prescribing, and track progress. There are no published national data on AU in U.S. companion animal hospitals and few data on practices in individual hospitals. Since 2018, a research team at the University of Minnesota (UMN) College of Veterinary Medicine has used the PPS approach to measure and track AU in a single hospital and to describe AU in 19 companion animal general practices in the region. The team has also applied this methodology to conduct a national single-day PPS of AU in veterinary teaching hospitals.

What will be required of me if I participate in the national PPS survey?

Each participating facility should identify a primary point of contact for this study. This person, or a designated team, will be responsible for:
- Completing a clinical agreement and facility survey (e.g., services offered, clinic capacity, urban/rural characteristics)
- Attending an online training session
- Selecting a single survey date from a prespecified date range
- Generating a list of canine and feline patients seen on the survey date
- Collecting medical record information for each of those animals into an online data collection tool
- Completing an assessment survey of how data collection went
- Communicating with the UMN research team for data validation and other study coordination

The time commitment for participation each year is expected to be 1 hour for an online training, 1–5 hours for data entry based on patient caseload, and follow-up communication with UMN for data validation.

What will be provided to me?

A clinic survey, data collection tool, data dictionary, standard operating procedures (SOP) for data collection, and online training session will be provided to participating facilities. Lead study personnel from UMN will be available for assistance.

How will participation benefit my practice?

Join with other clinics to establish a national AU estimate for small animal practice. Through the PPS 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 participating practices.

Should I be concerned about data privacy?

Data will be collected in secure software systems. 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 clinic. UMN has deemed this research exempt from ethics committee review because we are not collecting sensitive information about patients, clients, or veterinary staff.

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?

- **Mar–Aug 2021:** University of Minnesota will conduct clinic recruitment and establish participation agreements. Participating clinics will receive training in data collection and will complete a facility survey about antibiotic use.
- **Aug 16–29, 2021:** Collect medical record data from a single day of practice during this date range.
- **Aug 16–Oct 31, 2021:** Wrap up data entry and complete a post-study survey.
- Conduct another single day of data collection in 2023.

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/gppps

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