

INSTRUCTIONAL GUIDE FOR VETERINARY ANTIMICROBIAL STEWARDSHIP CHAMPIONS

FOR VETERINARY PERSONNEL IN IOWA DEVELOPING AN ANTIMICROBIAL STEWARDSHIP (AMS) PROGRAM AND PROMOTING OTHER INFECTION CONTROL PREVENTION (ICP) AND BIOSECURITY PRACTICES IN COMPANION ANIMAL FACILITIES

Thank you for your interest in becoming one of Iowa's AMS Champions! AMS is a growing concern among health professionals across the world. We know you can't tackle it all at once, so start small and incorporate practices slowly over time. Even the smallest step you take today is a step forward towards combatting antimicrobial resistance (AMR). We all have a role to play in preventing drug-resistant infections and using antimicrobials judiciously. Your family, patients, and community are counting on you.

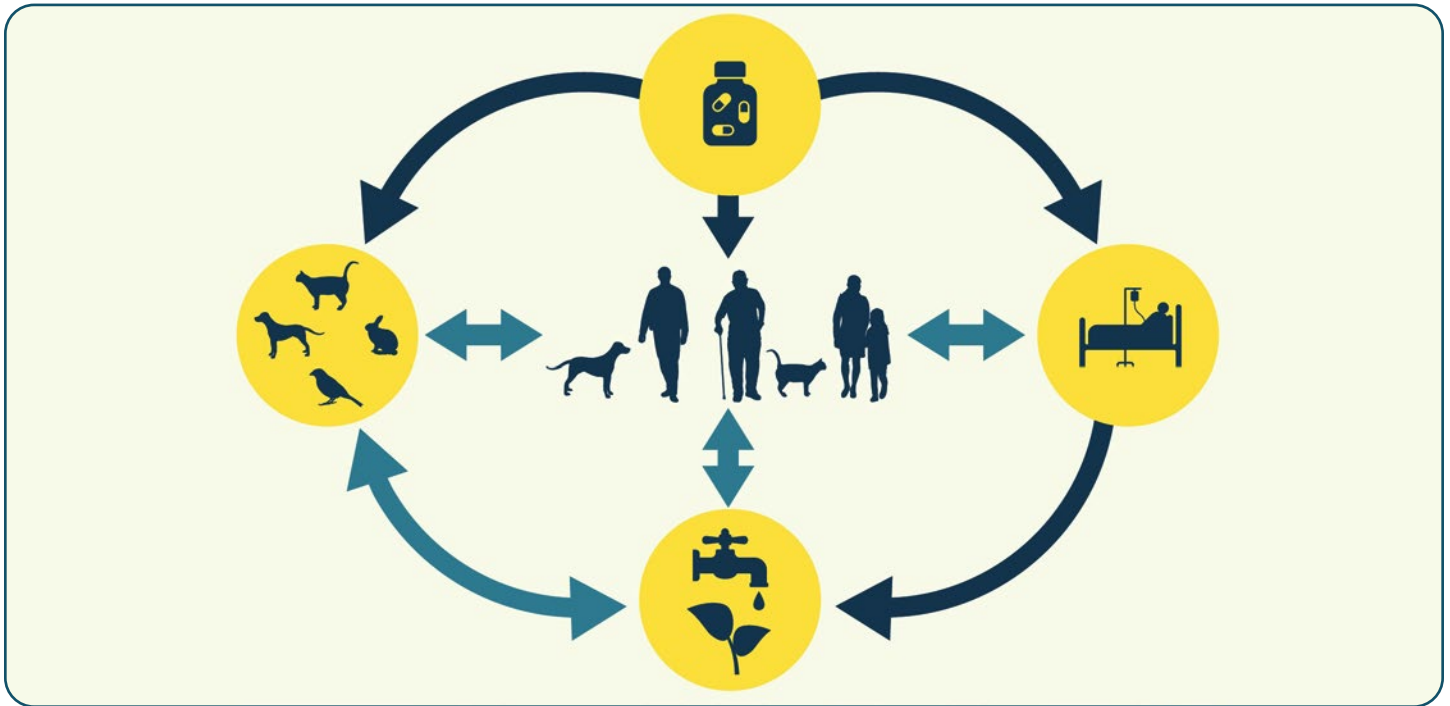


Read through this guide to learn more about AMS. You can then lead your practice through the creation and implementation of an AMS Program. This guide outlines five simple steps to take:

1. Learn more about AMS
2. Find support from coworkers
3. Draft an AMS Program
4. Get commitment from your whole team
5. Continuously improve your AMS Program

Step 1) Learn more about AMS

Antimicrobials (such as antibiotics and antifungals) have been a crucial tool for human and veterinary health care providers since the discovery of penicillin in 1928. Since then, many bacteria, fungi, and parasites have adapted to survive and spread despite the use of antimicrobial medications that are designed to kill them. Resistance can occur naturally when “germs” lack a specific target area for the medication to act on, or resistance can be acquired through random mutations or sharing of genetic material from other resistant “germs”.



Unfortunately, drug resistant infections continue to emerge and spread with limited options for new treatments on the horizon. According to [CDC](#), “each year in the United States, at least two million people become infected with bacteria that are resistant to antibiotics and at least 23,000 people die each year as a direct result of these infections.” Animals can also be infected with resistant bacteria, such as methicillin-resistant *Staphylococcus pseudintermedius* (MRSP). Maintaining the effectiveness of our current antimicrobials is critical, and starts with focusing on infection prevention and only using antimicrobials when necessary. Use the right medication at the right dose for the right amount of time.

Become more familiar with AMR and AMS by visiting these veterinary resources:

- [AAFP/AAHA: AMS Guidelines for companion animals \(2022\)](#)
- [AAHA: ICP and Biosecurity Guidelines \(2018\)](#)
- [AMR Exchange: Hooves, Paws, or Feet, Examining AMR in Animals \(2022 webinar\)](#)
- [AVMA 2020 Report: AMR Pathogens affecting animal health in the US](#)
- [The Ohio State University: Antimicrobial Use Guidelines \(2023 digital book\)](#)
- [UMN: Realities of Antibiotic Resistance and Stewardship in Small Animal Practice \(2019 webinar\)](#)

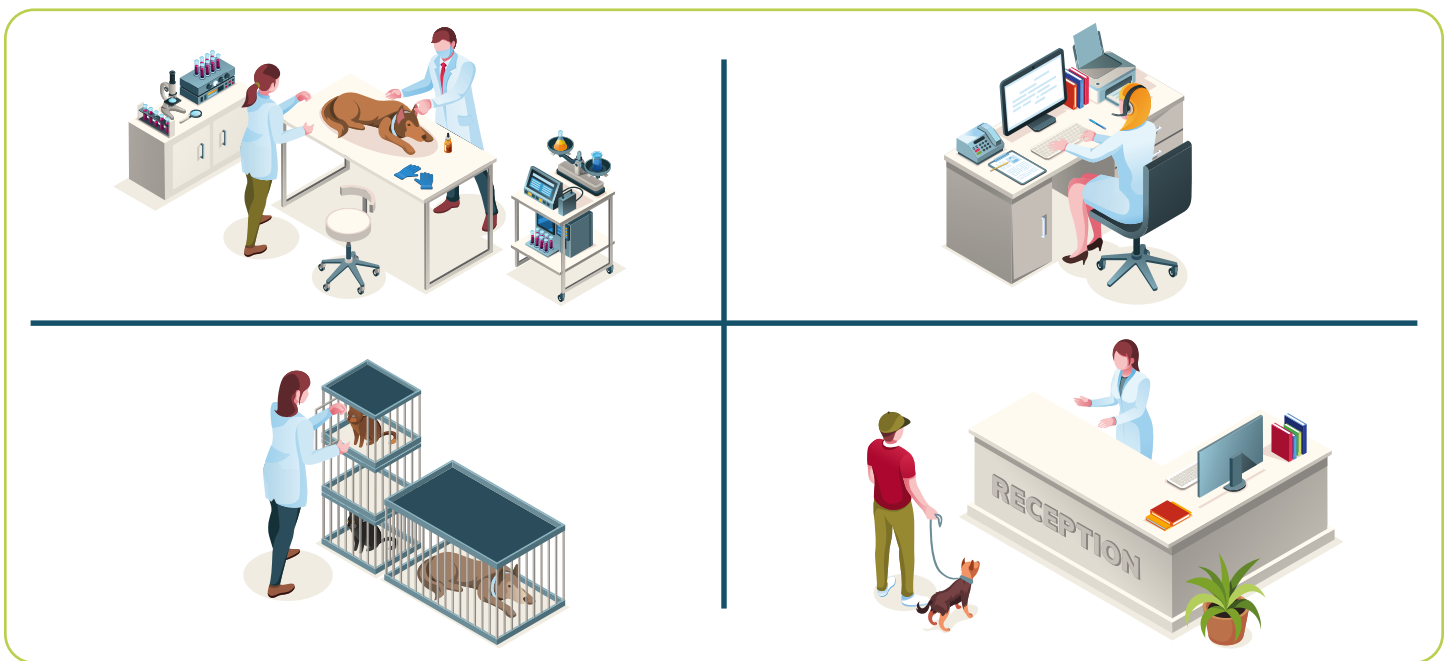
Valuable insights can also be gained from these resources focused on human health care:

- [CDC: Core elements of antibiotic stewardship](#)
- [Oregon Alliance Working for Antibiotic Resistance Education](#)

Step 2) Find support from coworkers

The success of AMS leadership will be more sustainable in the long term if you find one or two coworkers who can support you. Identify an Assistant AMS Champion to help you with drafting a written AMS Program for your practice and implementing Program activities as needed. They will also serve as your backup, help you avoid burnout, offer a different perspective, and energize you when you feel stalled.

While some activities will require very little time and resources, your team's success will be difficult without support from your leadership. Your assistant can also provide support when you approach the practice owner and/or practice manager with your interest in creating an AMS Program. Be prepared to explain why AMS is important to you, describe how much time this will likely take, and highlight the potential rewards for the practice. Whether we want to address it or not, AMS is an increasing priority at the state, national, and international level. Taking even one small step forward now will position your practice to better confront tomorrow's issues.



Step 3) Draft an AMS Program

Once you have leadership on board, it is time to draft an [AMS program](#). To help you through the process, an AMS Program Template is available. The template will walk you through the guiding principles of AMS:

- Publicly commit to the establishment and maintenance of this AMS Program
- Advocate for strong preventive health care as well as ICP and biosecurity practices that prevent common diseases
- Use antimicrobials sparingly and select them judiciously
- Continuously evaluate and revise antimicrobial use practices
- Build AMS expertise within the practice, enhancing knowledge across the community and state

Once you review the template, take time to thoughtfully consider which goals and activities may be the best starting point for your practice. These goals should be practical for your team to reach this upcoming year and set your team up for success and continued motivation. Get input from your Assistant AMS Champion about which goals you want to pitch to your team.

Step 4) Get commitment from your whole team

Once you have drafted an AMS Program and identified a few goals to work towards, it is time to share it with the rest of your team. When and how to share this information will depend on the size of your practice, the frequency of team meetings, and personal preferences.

- Is it wise to email or hand out a copy of the drafted Program ahead of time so team members have time to read through it before discussion?
- Is it possible to schedule a team meeting to discuss the AMS Program goals all together?
- Is a potluck lunch or snacks possible to energize and thank the team during the meeting?

To help you prepare for a one-on-one discussion or a broader team meeting, download and customize a set of PowerPoint slides and suggested script at [Iowa HHS: Antimicrobial Resistance](#).

Step 5) Continuously improve your AMS Program

After your AMS Program has started, it will be important to measure success. Discuss together early on what success looks like. Envision some short and long-term goals to get your team's buy-in and figure out ways to measure that success. For instance, is it easy to pull information on the number of antibiotics prescribed each month? Or, can you start tracking how many culture and sensitivity tests are ordered each year? The metrics should be something that you can compare over time to identify trends and potential gaps as well as success stories.

These success stories should help energize and incentive your team members to reach the Program goals and work towards continuous improvement in your team's AMS practices. The AMS Program Template is meant to be a starting point. Each year, you and your team should re-evaluate your efforts to determine which practices to modify and continue. As scientific knowledge advances in this area and best practices become evident, additional resources may become available. Continue to incorporate, replace, and refine your AMS goals and practices. Keep a growth mindset as you continue your commitment to AMS and our future health.

Acknowledgements:

This informational guide was created by the Center for Food Security and Public Health in collaboration with the Iowa Department of Health and Human Services and Iowa Department of Agriculture and Land Stewardship in partnership with Iowa State University College of Veterinary Medicine and Minnesota's One Health Antibiotic Stewardship Collaborative. Information in this guide is current as of 8/15/2024.