WSAVA TGG library on responsible antimicrobial use and AMR prevention

We selected key documents that can be useful to veterinary practitioners for implementing responsible antimicrobial use and AMR/infection control in small animal clinics. Many other documents have been published on these topics but we opted to focus on those providing clinical guidance that is of direct relevance to veterinary practitioners. Similarly, instead of listing all the national guidelines that are available worldwide, we selected two amongst the best examples of guidelines written in English because they may serve as reference documents for other countries that intend to develop clinical practice guidelines on antimicrobial use in the future. A repository of all documents on responsible use of antimicrobials, including guidelines, has been published by the World Veterinary Association (see below).

National Guidelines

Global Repository of Available Guidelines for Responsible Use of Antimicrobials in Animal Health. This repository by the World Veterinary Association contains a list of 102 guidelines, action plans and promotional material on responsible use of antimicrobials, covering a large number of countries, languages, and animal species. Access to these documents shall serve veterinarians and other health professionals to identify and implement best practices for antimicrobials use and to fight the development of antimicrobial resistance in veterinary medicine. It should be noted that while the repository captures a broad range of guidelines, it was created in 2019 and the included guidelines may be updated from time to time.

Antibiotic Use Guidelines for Companion Animal Practice. The 2nd edition of the Danish guidelines is a comprehensive document that includes five introductory chapters on general principles for rational antimicrobial use, patterns of antimicrobial use in Denmark, treatment of multidrug-resistant infections, interpretation of laboratory reports and perioperative antimicrobial prophylaxis in addition to the core chapters focusing organ and system specific guidelines. These guidelines are an excellent example of national guidelines coordinated by a national veterinary organization. They are available in English, Danish, Polish and Chinese.

Australian companion animal guidelines. The Australian veterinary prescribing guidelines are evidence-based guidelines that were created in a collaborative effort between the University of Melbourne’s Asia Pacific Centre for Animal Health (APCAH) and the National Centre for Antimicrobial Stewardship (NCAS). These online guidelines are organized into two sections (medicine and surgery) and offers other useful tools including posters and booklets that can be downloaded, printed and displayed in the practice, a drug dose calculator and pharmacological information on the common antimicrobials used in Australian veterinary practice. The guidelines are designed to be easily implemented in practice, providing readily available information, and are continuously updated in response to feedback from veterinarians and availability of new evidence.

Disease-specific guidelines

ISCAID guidelines for the diagnosis and management of bacterial urinary tract infections in dogs and cats. This peer-reviewed article published by the ISCAID Antimicrobial Guidelines Working Group in 2019 (Vet J 247:8-25) provides recommendations for diagnosis and management of sporadic bacterial cystitis, recurrent bacterial cystitis, pyelonephritis, bacterial prostatitis, and subclinical bacteriuria. Issues pertaining to urinary catheters, medical dissolution of uroliths and prophylaxis for urological procedures are also addressed.

disease (URTD), canine infectious respiratory disease complex (CIRDC; previously known as canine infectious tracheobronchitis or kennel cough complex), bronchitis, pneumonia, and pyothorax.

**Guidelines for the diagnosis and antimicrobial therapy of canine superficial bacterial folliculitis.** This peer-reviewed article published by the ISCAID Antimicrobial Guidelines Working Group in 2014 (*Vet Dermatol* 2014; **25**: 1–15) describes optimal methods for the diagnosis and management of canine superficial bacterial folliculitis in dogs, including isolation of the causative organism, antimicrobial susceptibility testing, selection of antimicrobial drugs, therapeutic protocols and advice on infection control. Guidance is given for topical and systemic modalities, including approaches suitable for management of infections caused by meticillin-resistant *Staphylococcus pseudintermedius* (MRSP).

**Antimicrobial stewardship and infection control**

**Antimicrobial stewardship definition and core principles.** This online document available on the American Veterinary Medical Association website provides a good introduction to definition and core principles for implementing antimicrobial stewardship in veterinary medicine.

**University of Minnesota handbook of antimicrobial stewardship in companion animal veterinary settings.** This handbook published by the University of Minnesota in 2020 outlines approaches that veterinary professionals can take to implement the core principles of AS. The Handbook is organized to help readers to identify feasible actions for your facility, given the realities of your practice scope, staff, and resources.

**Infection Prevention and Control Best Practices for Small Animal Veterinary Clinics.** This comprehensive Canadian document provides the information needed to develop and operate an infection control program and establish basic infection control practices in small animal veterinary clinics, with specific emphasis on critical routine practices such as hand hygiene, and cleaning and disinfection. The document is relevant to all personnel who work in association with such clinics, including veterinarians, veterinary technicians and lay staff.

**Recommendations for approaches to meticillin-resistant staphylococcal infections of small animals: diagnosis, therapeutic considerations and preventative measures.** This clinical consensus guidelines published by the World Association for Veterinary Dermatology in 2017 (*Vet Dermatol* 28:304-e69) provides guidelines for the diagnosis, laboratory reporting, judicious therapy, personal hygiene, and environmental cleaning and disinfection that may help to mitigate development and dissemination of meticillin-resistant staphylococci in small animal veterinary practice.

**ACVIM consensus statement on therapeutic antimicrobial use in animals and antimicrobial resistance.** This consensus statement published by the American College of Veterinary Internal Medicine (ACVIM) in 2015 (*J Vet Intern Med* 29:487-98) provides guidance on the therapeutic use of antimicrobials in animals, balancing the need for effective therapy with minimizing development of antimicrobial resistance in bacteria from animals and humans.