Antimicrobial Research Available Online

To coincide with the European Antimicrobial Awareness Day (EAAD, which took place Nov. 18) the Equine Veterinary Journal (EVJ) has released a special online collection of articles on antimicrobials. The collection is available for free to all readers and highlights the current understanding of equine antimicrobial resistance and how the profession can preserve the effectiveness of these essential medicines.

Antimicrobial resistance is an emerging clinical problem, recognized internationally as one of the largest threats to human and animal health. All major health and veterinary organizations are working to try and limit the development of resistance so that effective antimicrobials can be retained for use in clinical practice.

Following the launch of the British Equine Veterinary Association’s (BEVA) PROTECT ME campaign in 2012 two-thirds of equine practices now adhere to self-imposed policies governing the responsible use of antimicrobials. The EVJ was the first publication worldwide to adopt an antimicrobial stewardship policy in its author guidelines. The new online collection comprises ten clinical reports and studies and three editorials covering current trends on bacterial populations, risk factors, and the appropriate use of antimicrobials in practice.

A clinical report on the changes in bacterial populations in foals with sepsis raises the question whether the emergence of resistance in horses has occurred as a result of antibiotic use in humans, with nosocomial spread from human handlers in foals. Studies on the prevalence of fecal carriage of antimicrobial resistant Escherichia coli show their prevalence to be common in normal horses in the community in the U.K., although Methicillin-resistant Staphylococcus aureus carriage was rare. Data suggested transmission of resistant bacteria from animals receiving antibiotics could result in carriage of bacteria by contact animals.

The need for judicious use of antimicrobials is reinforced in a study on antimicrobial-associated diarrhea in three equine referral practices. Two papers investigate both prescribing practice in the U.K. and the impact of antimicrobial use on infection and pyrexia (fever) in hospitalized horses, concluding that there are opportunities for more targeted use of antimicrobials in the perioperative (during an operation) period, rather than simply more antimicrobials.

The final study discusses a low-cost syndromic surveillance model for monitoring health-care-associated infection in clinical practice to provide a realistic benchmark against which other hospitals can compare antimicrobial study data. Three supporting editorials complete the online collection, giving important comment on the overall situation of antimicrobial resistance in the horses, including the current political situation, and antimicrobials and surgical site infection.

“It remains to be determined how big a problem antimicrobial resistance will become for the equine veterinary profession, either through greater difficulties in treating horses, or through political pressure to restrict access to antimicrobials,” said Peter Clegg, MA, VetMB, PhD, CertES, Dipl. EVCS, MRCVS, associate editor of the EVJ. “Meanwhile the EVJ remains committed to the promotion of responsible stewardship to best preserve the efficacy of the drugs we have got for as long as we can.”

Mark Bowen, BVetMed, PhD, CertEM (IntMed), MRCVS, president of the BEVA and guest editor, added, “BEVA has a long-term commitment to promoting responsible antimicrobial use throughout the profession and supporting EAAD through the PROTECT ME brand. This year we have released resources around Education, aimed at the profession through EVJ and to the horse owning public through development of material that can be provided alongside antimicrobial dispensing. The work of the equine profession in preserving the highest priority antimicrobials will ensure efficacy can be retained for as long as is possible.”

The antimicrobial online collection is available for free online at http://bit.ly/1QhOo7b.