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Preface

New Perspectives in Infectious Diseases



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Editor

The last issues of *Veterinary Clinics of North America: Equine Practice* that focused on infectious diseases were the December 2000 issue edited by Dr Peter Timoney titled, “Emerging Infectious Diseases,” and the August 1993 issue edited by Dr Josie Traub-Dargatz titled, “Update on Infectious Diseases.” Since these issues were published, there have been significant improvements made in the ability to diagnose, treat, and prevent infectious diseases in the horse. Despite the advances of the last two decades however, many of the same diseases remain important threats to equine health today and will continue to pose significant challenges in the future. As specific examples, improved diagnostics and therapeutic protocols for equine protozoal myeloencephalitis and *Rhodococcus equi* pneumonia have had a tremendous impact, but these diseases continue to be significant causes of morbidity and death, effective vaccines have not yet been produced, and, in the case of *R equi*, antimicrobial resistance is now an emerging problem. Likewise, improved vaccines are needed to protect against equine herpesvirus myeloencephalopathy, strangles, and equine arteritis virus and to overcome the antigenic drift of equine influenza virus. Even though effective vaccines are available against the encephalitis viruses and West Nile virus, some strains are expanding in distribution and epizootics continue to occur. Salmonella outbreaks continue to shut down hospitals. Not much was known about equine proliferative

enteropathy at the time the last infectious disease issue was published, but it has become an increasingly important problem in North America and worldwide.

The articles in this issue deal with the topics highlighted above and more. Unfortunately, it was not possible to include all infectious diseases, and there are many important diseases we were not able to cover, including some emerging diseases for which the story continues to unfold (enteric coronavirus and flaviviruses associated with hepatitis are examples). Although we have primarily selected diseases with relevance to North America, we live in a highly mobile society and the international movement of horses is commonplace. Thus, knowledge of infectious diseases that are considered exotic or otherwise affect domestic and international movement is prudent. The re-emergence of piroplasmiasis in the United States is a good example. Equine infectious anemia is another. Hendra virus is noteworthy because it is a serious emerging zoonotic pathogen for which an effective vaccine has recently been developed. Finally, putting things in perspective, North American horses represent only 9% of the approximate 112 million equids in the world, and the majority of these are working equids residing in some of the world's least developed regions. These working horses, donkeys, and mules do not benefit from the level of care available in more developed countries, and they suffer from a variety of infectious diseases for which we have provided an overview.

The contributors to this issue and I hope you find these articles a useful reference. I would like to sincerely thank each of the authors for their hard work in providing comprehensive and cutting-edge information. All are experts and leaders in their respective fields and working with them has been a very rewarding and educational experience. I also thank Dr Paul Lunn for his helpful advice. Finally, my sincerest gratitude goes to Dr Simon Turner for the opportunity to put this issue together.

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