

less commonly covered in their own right. Whilst lacking in detailed discussion of some key welfare issues, and dealing primarily with the intensive production systems of Europe and North America, it still constitutes a useful reference work for academics, students and industry specialists.

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Infectious Disease Management in Animal Shelters

By L Miller and K Hurley (2009). Published by Wiley-Blackwell, 2121 State Avenue, Ames, Iowa 50014-8300, USA. 400 pp Paperback (ISBN 978-0-8138-13790). Price £39.99, €66.70.

The preface tells us that this is the sequel to *Shelter Medicine for Veterinarians and Staff*, the first textbook for veterinary surgeons devoted to the care of animals in shelters. The book is edited by Lila Miller and Kate Hurley, two of the leading proponents of shelter medicine in the US, and there are contributions from a number of well-known US authors. Inevitably the book is centred on the diseases and treatments common and available in the US and this undoubtedly limits its usefulness for other parts of the world. The euthanasia rate in many US shelters is often relatively high and there may be different attitudes to euthanasia elsewhere that affect a number of issues throughout the book.

The first section of a hundred pages discusses disease management. This is a thorough examination of the principles behind management. It includes the concept of wellness and the influences that management can have on that in the very stressed animal in a shelter. Quality of life is discussed and related to the Five Freedoms and the behavioural issues that can be a consequence of poor quality of life. Throughout the section the inevitable implications of cost are included. Tables show the core vaccines advised in the US and their preferred site of administration that again may differ in other countries. Chapters on outbreak management and disinfection follow giving logical advice on procedures. Much of the following chapters on vaccination and pharmacology will be revision for most veterinarians and I wonder why so much detail is deemed necessary if the primary readers are intended to be veterinary surgeons.

The second section deals with a number of specific diseases that are common in US shelters. The relevance of this section to readers outside the US will vary as the prevalent diseases will be different and influenza seems mainly to be a US disease, although the chapter on influenza as an emerging disease is interesting. The chapter on feline upper respiratory disease correctly highlights the importance of this to shelters across the world and gives some useful advice.

The third section deals with gastrointestinal disease. It correctly highlights the importance of the parvoviruses to both cat and dog shelters as being the greatest risk. There is a good discussion of the diagnosis of parvovirus and the potential for confusion in dogs vaccinated with live virus and its subsequent excretion causing false positives on

ELISA tests. The section also includes a chapter on internal parasites and gives information on some pretty obscure species. It also highlights the zoonotic potential of *Echinococcus multilocularis* that is endemic in the US and appears not to be present in much of the rest of the world and especially Europe. The chapter on bacterial and protozoal disease includes the common organisms but the availability of some of the ELISA tests is clearly variable between countries and so some are not mentioned. The prevalence data is also at odds with current data from other countries for species such as *Campylobacter* that may be more common as a normal gut flora.

The fourth section deals with dermatology. There is a thirty-page discussion of dermatophytosis and the important implications, particularly for shelters dealing with cats, are covered in full. The risks to staff are highlighted throughout. The recommended treatment with lime sulphur seems unusual in this day and age of more effective pharmaceuticals. Diagnosis of external parasites is covered in some depth but the treatment regimes suggested are often not what would be considered best practice with the range of available pharmaceuticals, particularly the improved ivermectins.

Section five deals with a number of other diseases relevant in the US, particularly rabies. The chapter on FeLV and FIV again highlights the differences between the US and other parts of the world. As there is a licensed FIV vaccine in the US that is unavailable in other countries, vaccination antibody status is indistinguishable from field infection. The data on prevalence of FIV is significantly different in other countries where it seems to show a higher risk for feral tom cats. There is an extensive chapter on FIP that correctly highlights the difficulty in diagnosis.

The fulsome chapter on vector-borne diseases is largely relevant to the US and illustrates the potential effect of climate change on more temperate countries. The chapter on heartworm only discusses *Dirofilaria* with no mention of *Angiostrongylus*. The final chapter on zoonoses raises all the well-known risks of working in a shelter and is a salutary warning to shelter staff.

Without doubt, the textbook draws attention to a host of issues that could affect the welfare of animals in shelters. In summary, it is well written and thorough. But it is clearly aimed at the US market, and so much of it has to be read with that in mind, and an appropriate UK pinch of salt used to interpret the contents.

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Biostatistics for Animal Science, Second Edition

M Kaps and W Lamberson (2009). Published by CABI, Wallingford, Oxfordshire OX10 8DE, UK. 528 pp Paperback (ISBN 978-1-84593-540-5). Price £39.99.

This is a large (528 pages), comprehensive textbook on statistics and experimental design directed at people doing research mainly with farm animals although, as the authors point out, the principles and methods are appropriate for