

Topic : Responsible use of antibiotics

The Bella Moss Foundation has worked for the past seven years to develop a greater understanding of the emergence of resistant strains of bacteria (including MRSA) particularly in companion animals, and has worked with the various British veterinary organisations and vet training schools to improve front-line clinical practice in the treatment and prevention of resistant infections. The Bella Moss Foundation welcomes the attention drawn to the use of antibiotics and antimicrobials by the Chief Medical Officer's report (March 4th 2013)

Dr Tim Nuttall of the University of Liverpool, and one of The Foundation's principle scientific and educational advisers, says;

"The development of antibiotic resistance was inevitable as antibiotic resistance genes are widespread in nature. Antibiotics favour the survival of bacteria carrying resistance genes, allowing them to spread. It's important to realise that humans and companion animals, such as dogs and horses, are often in close contact and bacteria can be transferred in both directions^{i, ii}. However, antibiotic resistant bacteria can also be isolated from healthy people and animals in the community. The one-health initiative recognises that veterinary and medical healthcare are intimately related and progress needs cooperation".

"Research at the University Of Liverpool School Of Veterinary Science has helped characterise the prevalence and risk factors for carriage of antimicrobial resistant *Escherichia coli* and staphylococci in healthy and vet-visiting dogs and horsesⁱⁱⁱ. Fortunately, infections with antimicrobial resistant bacteria remain relatively uncommon in animals. Further research will help us understand the key risk pathways involved in the development and spread of antimicrobial resistance."

BMF Clinical advisor Mike Jessop, Ash Veterinary Surgery says

The Chief medical officer's statement keeps the issue of Antimicrobial Resistance high on the political agenda. It is important to recognise the importance of this issue and the Bella Moss Foundation has been working hard to support the Companion Animal sector of the veterinary profession. The help and guidelines are readily applicable to the day to day dilemmas facing us practitioner veterinarians on the front line of the resistance battle. With a reducing likelihood of novel new antimicrobials in the near future, sensible use and valuing those that we do have, is of increasing importance.

Education of professionals and users is a key strategy and the work of the Bella Moss Foundation is invaluable.

Paul Green, VMD Operations Director said;

“The Defra Antimicrobial Resistance Co-ordination (DARC) Group directs, advises and reviews Defra activities on antimicrobial use in animals and antimicrobial resistance (AMR) in micro-organisms from feeding stuffs, animals and food. The Government takes a joined up approach to this issue and as such, DARC works closely with other Government groups, including the Department of Health. DARC has various specialist subgroups of which The Bella Moss Foundation is an active member and provides pet owner representation. The Bella Moss Foundation contributions have helped develop and shared messages on responsible antibiotic use for pet owners and guidelines for veterinary surgeons and veterinary nurses, to improve understanding of antimicrobial resistance.”

For further information, please contact the FECAVA office (ulrike@fecava.org)

"The Federation of European Companion Animal Veterinary Associations (FECAVA, www.fecava.org), and in particular its Working Group on Hygiene and the Use of Antimicrobials in Veterinary Practice, have been collaborating with the Bella Moss Foundation to help raise awareness on antimicrobial resistance. The aim of the working group is to increase this awareness amongst European veterinarians. It has been developing guidelines on the responsible use of antimicrobials, such as the recently published Poster on use of Antimicrobials in Veterinary Practice [link to: <http://www.fecava.org/sites/default/files/files/Final%20Fecava%2050x70%20127.pdf>]. However, pet owners are one of the most important ‘tools’ for the veterinarian in the context of responsible use of antimicrobials: an educated pet owner will not expect or demand antimicrobials if these are not necessary. In this context, the Bella Moss Foundation is an excellent platform to raise awareness among pet owners.

Bella Moss Foundation Statement continued /...

The threat posed by resistant bacteria is real and immediate, but the situation is not yet a health catastrophe and the problems facing human and veterinary health go far beyond the development of new generations of antibiotics. Human and animal health professionals are now much more aware of the need to be more systematic in their use of antibiotics and at the same time acknowledge that human and animal health are linked through the environment, contact and use of antibiotics. The Bella Moss Foundation believes that the best progress can be made by unifying the work done in human and animal health.

Reducing the risk posed by resistant bacteria can be achieved through three lines of action; firstly, antibiotics need to be used in a targeted way so that the specific characteristics of a particular bacteria are addressed in the treatment; secondly, awareness of the role played by the environment must be increased to take account of the impact of the design and layout of clinical facilities and the way they are cleaned, and, thirdly, through rigorous adherence to regimes of personal hygiene, particularly the hands. These three principles apply equally to human and animal health provision.

The Bella Moss Foundation, with the assistance of its clinical and research experts, continues to support the development of greater understanding and knowledge of the health issues that cross the human/animal boundary and supports any governmental effort to fundamentally change the way antibiotics are used.

For BVA/RUMA statement CMO’s report, <http://www.ruma.org.uk/news/20130311.htm>

<http://www.thebellamossfoundation.com/about-the-foundation/partners-collaborations/> Bella Moss Foundation collaborations

<http://www.thebellamossfoundation.com/vets/our-clinical-advisors-2/> contacts for clinical advisors

References

ⁱ Westgarth C, Pinchbeck GL, Bradshaw JWS, Dawson S, Gaskell RM, Christley RM (2008) Dog-human and dog-dog interactions of 260 dog-owning households in a community in Cheshire. *Veterinary Record* 162 436-442.

ⁱⁱ Nuttall, TJ, Williams, NJ, Saunders, R, Dawson, S (2009) Meticillin-resistant Staphylococci in companion animals. *European Journal of Companion Animal Practice* 18 280-287.

ⁱⁱⁱ Maddox TW, Williams NJ, Clegg PD, O'Donnell AJ, Dawson S, Pinchbeck GL (2011). Longitudinal study of antimicrobial-resistant commensal *Escherichia coli* in the faeces of horses in an equine hospital. *Preventive Veterinary Medicine* 100 134-145.

^{iv} Beco L, Guaguère E, Lorente Mendez C, Noli C, Nuttall TJ, Vroom M (2013) Suggested guidelines for using systemic antimicrobials in bacterial skin infections: part two – antimicrobial choice, treatment regimens and compliance. *Veterinary Record* 172 156-160.

^v Beco L, Guaguère E, Lorente Mendez C, Noli C, Nuttall TJ, Vroom M (2013) Suggested guidelines for using systemic antimicrobials in bacterial skin infections: part one – diagnosis based on clinical presentation, cytology and culture. *Veterinary Record* 172 72-78.

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