

Developing appropriate antimicrobial protocols in a working equid context



The Brooke UK

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Introduction

- The Brooke is an international animal welfare organisation, working in 11 low income countries, dedicated to improving the lives of working equids. We work to increase the quality of and access to veterinary services through both direct service provision and capacity building of private and government animal health services.

The problem

- Veterinary overuse of antimicrobials, particularly those designated 'protected', may affect the prevalence of antimicrobial resistant organisms in both animal and human populations
- The widespread availability of antimicrobials in low-income countries has led to inappropriate use by patients and health care providers (Radyowijati and Haak, 2003). This has also been observed in animal healthcare
- Improving prescribing practice can reduce antimicrobial use (Bantar *et al.* 2003)



Antimicrobial resistance was discussed at an internal multi-country meeting in 2013. Each country programme then developed a protocol based on the British Equine Veterinary Association template (BEVA website). Protocol implementation was reviewed after one year, informed by a short survey and informal discussions; criteria included the extent of implementation, how protocol use was being monitored, challenges faced during implementation and thoughts on future developments.

Ethiopia

- The protocol is used by 12 vets, 229 animal health assistants and 52 community animal health workers. Antimicrobials are supplied through a drug revolving fund.
- The use of the antimicrobial protocol by government clinics is monitored using workplace based assessment
- Mentoring has helped to change attitudes about antimicrobial use
- Future community engagement work will encourage selection of quality animal health providers and appropriate antimicrobial use in animals



Jordan

- An antimicrobial protocol was agreed with the government clinic through a participatory process
- The protocol was incorporated into the training curriculum and monitored using workplace based assessment
- Changing behaviour has been challenging, mitigated through the use of evidence based veterinary medicine
- Availability of appropriate antimicrobials has been difficult; alternatives have been sought



India

- The protocol has been incorporated into the training programme for Brooke vets (39), government vets and local animal health providers
- Ceftiofur has been removed from the Brooke India medicine list
- The main challenge is widespread use of 3rd and 4th generation cephalosporins by local animal health providers. Attempts to change attitudes include the use of case studies treated successfully with first line antimicrobials



Conclusions

- Providing training and decision support tools to improve antimicrobial prescription practice is necessary but not sufficient
- Protocol implementation has been fairly straightforward for Brooke-delivered services as we have control over medicine procurement. Quantitative studies will determine the efficacy of the Brooke protocols
- Protocol implementation is more difficult when working with private service providers; there is little incentive for them to comply as they may not be motivated to adhere to professional standards of prescribing practice
- Owner engagement to promote appropriate antimicrobial use is recommended (WHO, 2001). Selection of quality service providers is also important. However changing attitudes and behaviour can be challenging
- Higher level advocacy is required, working with governments to make changes to antimicrobial regulation and monitoring

References: BEVA website; <http://beva.org.uk/useful-info/Vets/Guidance/AMR>; WHO global strategy for containment of antibiotic resistance. Geneva: WHO, 2001: 99.

Radyowijati, and Haak. Soc Sci Med. 2003 Aug;57(4):733-44. Improving antibiotic use in low-income countries: an overview of evidence on determinants.

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Presented by
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