BVA submission to the House of Commons Science and Technology Committee on Antimicrobial Resistance

Executive summary

1. The British Veterinary Association (BVA) is the national representative body for the veterinary profession in the United Kingdom and has over 14,000 members. Its primary aim is to protect and promote the interests of the veterinary profession in this country, and it therefore takes a keen interest in all issues affecting the veterinary profession, be they animal health, animal welfare, public health, regulatory issues or employment concerns.

2. We endorse the written submission provided by the Responsible Use of Medicines in Agriculture Alliance (RUMA) which, as a member of RUMA, we were actively involved in drafting. However, we would like to take this opportunity to supplement their response by highlighting a number of key issues which are particularly relevant to the veterinary profession.

3. We would like to re-emphasise the point that scientific evidence increasingly recognises that the problem of antibiotic resistance in humans comes largely from the overuse and misuse of antibiotics in human medicine, as acknowledged in the Department of Health and Defra’s UK Five Year Antimicrobial Resistance Strategy. However, we fully recognise the need to tackle resistance in animals and feel that a ‘One Health’ approach, with medical and veterinary professionals working together, is crucial in tackling antimicrobial resistance.

4. It is important to note that restrictions on the use of antibiotics in animals do not necessarily lead to reductions in antibiotic resistance in humans.

5. Decisions on controls for antibiotic use in animals should be based on scientific evidence, should strike a proportionate balance between controlling the risk of resistance in animals and humans and providing the necessary medicines to enable high levels of animal health and welfare to be maintained. They should also take account of the impact of actions already taken in some countries. Decisions on controls should be measurable and reviewable.

6. We are concerned that a disproportionate application of the precautionary approach which restricts antibiotic use in food producing animals and ignores sound scientific risk assessment is unlikely to lead to reductions in resistance in humans, but could have serious negative effects on animal welfare and on the ability of farmers to produce good quality food from healthy animals.

Controls on antibiotic usage

7. In Denmark, severe restrictions on the use of fluoroquinolones in animals were put in place in the mid-1990’s. However, although Campylobacter jejuni resistance to these fluoroquinolones in domestic human cases declined somewhat in the early 2000’s, this was followed by a marked increase towards the end of the decade (see Figure 1). This was matched by an increase in the consumption of leading fluoroquinolones in primary human healthcare (see Figure 2). Such evidence would suggest that despite advances in responsible use in veterinary
medicine, the benefits that possibly accrue are short-lived when over-prescribing of these compounds in humans continues unabated.

Figure 1 Resistance (%) in Campylobacter jejuni from broilers, broiler meat and human cases, Denmark¹

![Figure 1](http://www.danmap.org/Downloads/~/media/Projekt%20sites/Danmap/DANMAP%20reports/DANMAP%202012/Danmap_2012.ashx)

a) An isolate was categorised as ‘domestic’ if the patient did not travel outside Denmark one week prior to the onset of the disease.

Figure 2 Consumption of leading fluoroquinolones in primary healthcare, Denmark²

![Figure 2](http://www.danmap.org/Downloads/~/media/Projekt%20sites/Danmap/DANMAP%20reports/DANMAP%202012/Danmap_2012.ashx)

¹Figure 6.3, page 70, DANMAP 2012
http://www.danmap.org/Downloads/~/media/Projekt%20sites/Danmap/DANMAP%20reports/DANMAP%202012/Danmap_2012.ashx

²Figure 5.1.2, page 52, DANMAP 2012
In the USA, the fluoroquinolone enrofloxacin was banned in poultry in 2005. However, data shows that resistance in man has continued to rise (see Figure 3).

Figure 3 Incidence of resistance to fluoroquinolones in Campylobacter in man following the ban on enrofloxacin in poultry in the USA in 2005

It has been suggested by some that the decoupling of the right to prescribe veterinary medicines from the right to sell these medicines might help slow resistance. However, a report produced in 2010 by Berenschot which examined the effects of decoupling in the Netherlands concluded that this “would not be effective” and instead recommended strengthening the position of the veterinary practitioner as ‘gatekeeper’.

10. The most recent European Medicines Agency, European Surveillance of Veterinary Antimicrobial Consumption report 2013, recording the ‘Sales of veterinary antimicrobial agents in 25 EU/EEA countries in 2011’ (EMA/236501/2013), also illustrates that in those countries

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where it is required, decoupling the prescribing and dispensing of antimicrobials by veterinarians does not necessarily lead to a reduction in use. The results on initial examination are encouraging in that there appears to be a decline in the volume of antimicrobials sold in many of the member states, which is consistent with actions being taken at all levels to reduce the use of these medicines in veterinary practice. However, whilst in Norway, Sweden, Finland, Latvia, and Lithuania, where decoupling is in place, the sales of these products (corrected for the variation in food animal populations) are impressively low, sales in Poland, Germany, Italy, and Spain, where decoupling is also in place are worryingly high (see Figure 4). Any call to reduce antimicrobial resistance in man by decoupling in veterinary medicine must be treated with some scepticism; it simply has not been proven to work in reducing the consumption of veterinary antimicrobials in all circumstances.

Figure 4. Sales of veterinary antimicrobial agents based on data from EMA, European Surveillance of Veterinary Consumption report 2013


11. The BVA opposes decoupling and believes that it would not achieve a reduction in the use of antimicrobials, but would have a serious and detrimental effect on the clinical ability of vets to conduct their professional duties in the treatment of animals under their care. We believe that instead vets should continue to be encouraged as part of their professional obligation to use antimicrobials responsibly.

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The use of antibiotics in animals in the UK

12. As noted in the RUMA response, in the UK antibiotics must be prescribed by a veterinary surgeon. Antibiotics are used to:
   i. treat sick animals to cure bacterial infections
   ii. control disease spread in groups of animals in contact with other animals which are already showing signs of disease
   iii. in exceptional cases, prevent disease from developing where a vet has diagnosed a high risk of bacterial infection in the herd/flock at risk

13. It is important to note that antibiotics are not used to promote growth in animals. A total ban on the use of antibiotics as growth promoters came into effect in the EU on 1 January 2006.

14. Again, as noted by RUMA, antibiotics, like all medicines, should be used responsibly. We believe that a key element of responsible use is choosing the right drug for the right disease. This should be done by identifying likely target organisms and predicting their susceptibility, and by creating practice-based protocols for common infections based on clinical judgement and up-to-date knowledge. Through their professional expertise veterinarians are best placed to make these judgments.

15. In 2009, BVA produced an eight-point plan on the responsible use of antimicrobials urging the veterinary profession to use antimicrobials ‘as little as possible, as much as necessary’. This plan also emphasised that ‘critically important’ antibiotics for human treatment such as fluoroquinolones and third and fourth generation cephalosporins, should not be used preventively or as first line treatment.

16. Since the plan’s production, it has been translated into a number of languages and formed the basis for other veterinary initiatives including the British Small Animal Veterinary Association’s PROTECT guidance and the British Equine Veterinary Association’s PROTECTMe programme. It has also been actively promoted as a pillar of the responsible use guidelines for members of the profession and those studying veterinary medicine in the UK in an ongoing programme of Continuing Professional Development (CPD) coordinated and run by the BVA.

17. The BVA lobbied hard for the responsible use of antimicrobials to be enshrined in the Royal College of Veterinary Surgeon’s Code of Professional Conduct, which now requires members to be accountable for how they use antimicrobials in practice. All veterinary surgeons in the UK must abide by this code and face disciplinary action if they do not. In addition, responsible use has been incorporated into the RCVS Practice Standards Scheme’s (PSS) core standards, which quality assures practices and their facilities. Although this scheme is voluntary, with

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7 http://www.bva.co.uk/public/documents/BVA_Antimicrobials_Poster.PDF
8 http://www.bsava.com/Resources/PROTECT.aspx
9 http://www.beva.org.uk/useful-info/Vets/Guidance/AMR

Section 1.5 of the Code: “Veterinary surgeons who prescribe, supply and administer medicines must do so responsibly.” Section 4.22 of supporting guidance: “The development and spread of antimicrobial resistance is a global public health problem that is affected by use of these medicinal products in both humans and animals. Veterinary surgeons must be seen to ensure that when using antimicrobials they do so responsibly, and be accountable for the choices made in such use. Resistance to anthelmintics in grazing animals is serious and on the increase; veterinary surgeons must use these products responsibly to minimise resistance development.”
around half of UK veterinary practices as members, the Code of Professional Conduct requires veterinary practices to maintain minimum practice standards equivalent to the RCVS PSS core standards. Therefore all veterinary practices will now have to demonstrate that they use antimicrobials responsibly.

18. BVA has also been working to raise awareness of resistance through initiatives like European Antibiotic Awareness Day. A collection of the resources produced in advance of EAAD 2013, can be found on the BVA website at www.bva.co.uk/eaad. This includes a poster produced with the Veterinary Medicines Directorate for veterinary practice waiting rooms, leaflets for farmers and pet owners on their role in tackling resistance, a set of myth busters addressing common misconceptions about antibiotics, and links to webinars and debates.

Research and investment into new antibiotics and alternative treatment methods

19. More needs to be done to encourage veterinary medicines companies to invest in the development of new antibiotics for both human and animal health.

20. We also support RUMA’s call for practical and affordable pen side diagnostic tests to allow vets to determine antibiotic susceptibility quickly and therefore the correct treatment.

21. We agree that there is a real need for research into alternatives to antibiotic use.

Education and Professional Development

22. BVA has been very active in underpinning the importance of responsible use of medicines, especially antimicrobials, in the undergraduate clinical curriculum at UK veterinary schools. Discussions to highlight the importance of this topic take place at the regular meetings the Association has with the Heads of Veterinary Schools, and indeed the BVA takes every opportunity to present on this topic students; the BVA Past President, Peter Jones, will be giving a paper on the stewardship of veterinary antimicrobials to the annual congress of the UK Association of Veterinary Students (AVS) in Nottingham on 25 January 2014. In addition, the BVA annual programme of CPD is designed so that the topic of responsible use is included as an integral part of the relevant courses on treatment of infectious disease through the year.

The UK Five Year Antimicrobial Resistance Strategy

23. We welcomed the publication of the Strategy in September and its ‘One Health’ approach. In addition to looking at measures to improve prescribing practices, we welcomed the focus on surveillance, research needs and the development of new drugs. As the Strategy acknowledges, the development pipeline for new antibiotics is at an all-time low, which is very true of the animal health sector as well, and so we welcome measures to investigate how to manage this trend.

24. As noted above, the veterinary profession is already taking action to mitigate the development of antimicrobial resistance in animals. However, the BVA Medicines Working Group is now tasked with formally reviewing the areas of action for the veterinary profession as identified by the Strategy to ensure that we are doing as much as we can to tackle resistance.