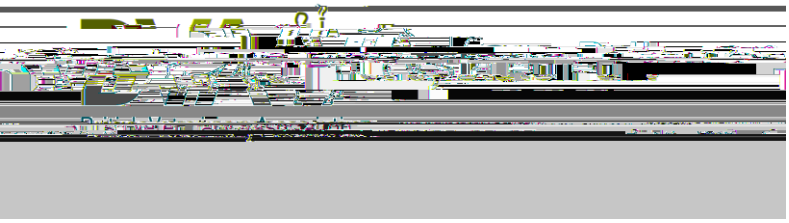


Research and development to support the control and eradication of bovine TB

Introduction

1. As part of an evidence-based profession, veterinary surgeons across all sectors and settings believe animal health and welfare policies should be underpinned by the best available scientific evidence.
2. Veterinary researchers are advancing scientific understanding of bovine TB (bTB) in a way which supports the work of vets across the profession. This includes:

    Farm vets who treat livestock, carry out surveillance, promote good biosecurity and advise their clients on preventive healthcare.

    State veterinarians in field offices who undertake risk assessments, outbreak investigations and notifiable disease control, and those in the UK network of surveillance laboratories carrying out postmortem examinations and other surveillance activities.

    Government vets providing veterinary expertise to inform public policymaking.

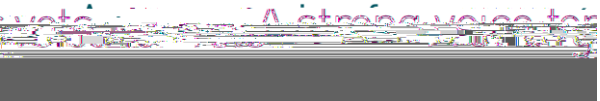
    Official veterinarians in abattoirs who undertake disease surveillance as part of postmortem examinations.

    Vets who research the disease and its epidemiology in wildlife and support controls in the wildlife population.

3. BVA is the representative body for the whole veterinary profession and has considered the research priorities for the profession which are explored below.

New evidence

4. New evidence is vital to furthering the understanding of bTB and maximising efforts to control and eradicate it. The



Funding

6. Defra[3] and the Department of Agriculture, Environment and Rural Affairs (DAERA) fund bTB research to inform policy and provide tools to fight the epidemic. Maintaining this funding is important. Therefore, we welcome that Defra has recognised that it needs to increase the output of its research programme.[4]

7. bTB research covers a wide range of areas and gives broad opportunities -leading universities and innovative life sciences and biotech industry to deliver innovative solutions. For example, the benefit of a validated bTB DIVA test for cattle may start in the UK but could be exported around the world. Therefore, we

regarding cattle purchasing, the application of biosecurity measures on farm and how decisions that promote disease control can be incentivised.

17. The prominence of social science research within animal health policy design is growing both in the UK and internationally. UK veterinary schools have undertaken interdisciplinary research using social science which has been used to develop interventions to address important issues such as antimicrobial resistance (AMR). For example, AMR research at Bristol Veterinary School is promoted and facilitated by the AMR Force. The AMR Force promotes close collaboration between veterinary researchers and other disciplines including social science. This approach has supported the development of Arwain Vet Cymru Wales which has led the way in promoting best practice prescribing of antimicrobials.[7]
18. Internationally, there has been growing collaboration across disciplines. The International Society for Economics and Social Sciences of Animal Health (ISESSAH) was formed in 2017. ISESSAH aims to improve animal health and welfare policies, programme and projects through more nuanced use of concepts and tools available in economics and social science disciplines. The 16th International Symposium of Veterinary Epidemiology and Economics (IVSEE)was held in 2022. ISVEE is a large gathering of students, researchers, and policymakers from different areas of expertise, where information is exchanged to advance the fields of veterinary epidemiology and economics and ultimately move towards a healthier world. UK participation at ISVEE has been significant since the first symposium was held in 1976 in Reading.
19. Wherever possible evidence should underpin every step of an intervention. Before an intervention begins, epidemiological models are useful for policy design and testing assumptions. However, all models make assumptions, and it is important for policymakers to be cautious when drawing firm conclusions. We also support the use of economic assessments alongside and integrated with an epidemiological model. This is because an economic assessment can consider wider issues which would fall outside an epidemiological model. This can include an assessment of logistics or a determination of value for money.
20. Ongoing monitoring of policy interventions is vital to gain an understanding of the actual effect. Monitoring also allows measures to be paused quickly if the effect is counter to that modelled. Evaluation of policy interventions is vital to ensure lessons are learned and embedded in future inventions. This process, in turn, will help to identify areas where further research is needed.

Dissemination of evidence

21. Getting new research and best practice into the hands of practising vets is crucial. Evidence-based veterinary medicine is key to the delivery of modern veterinary medicine. It means veterinary surgeons making clinical decisions according to their professional judgement, based on the best available evidence at the time.[8]
22. The process of implementing evidence-based interventions on the ground can be challenging. There is a need to close the evidence-to-practice gap (the time it takes for evidence to be put into practice).[9] Those commissioning and undertaking research need to consider what information is useful to vets and their clients, and how that information is presented to encourage the application of research findings into practice.
23. Furthermore, researchers, including those within government, should consider how best to share information to ensure an accurate reflection reaches all audiences. For example, we welcome the publication of metadata (also called the data dictionary) alongside any new publication. Metadata is the data about the data. This can include a collection of names, definitions, and attributes about data elements that are being used or captured in a database, information system, or part of a research project.

Conclusion and list of recommendations

24. Research is vital to support the work of vets across the profession. This is true for the control and eradication of bTB as well as many other challenges facing the profession. Below is a summary of recommendations for government, industry, researchers, and the wider veterinary profession to strengthen the contribution provided by research to the control of bTB.

[7] http://www.bristol.ac.uk/news/2019/november/arwain-vet-cymru.html
[8] Evidence-Based Veterinary Medicine Matters: Our Commitment to the Future 19 November 2019 https://knowledge.rcvs.org.uk/document-library/evidence-based-veterinary-medicine-matters/
[9] https://bmjopen.bmj.com/content/4/6/e005548