

MEETING, DOCUMENT

Animal and Environment Antimicrobial Resistance Delivery Group meeting: 5 December 2023

Summary of the meeting held on 5 December 2023.

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Attendees

Sarah Carr* (SC) Vet & Farmer / Animal Health & Welfare Framework Group Representative

Tamsin Dewé (TD) Veterinary Medicines Directorate (VMD)

Peter Jones (PJ) HSS, Welsh Government

Ifan Lloyd* (IL) lechyd Da / Arwain DGC

Hywel Morgan* (HM) Farmer, Nature Friendly Farming Network

Gwen Rees* (GR) ARWAIN DGC

Chris Teale* (CT) Animal and Plant Health Agency (APHA)

Holly Tipper (HT) UK Centre for Ecology and Hydrology

Gavin Watkins* (GW) OCVO, Welsh Government (CHAIR)

Apologies

Rachel Edwards* (RE) Farmers' Union Wales (FUW)

Kitty Healey* (KH) Veterinary Medicine Directorate (VMD)

Robin Howe* (RH) Public Health Wales (PHW)

Ian Jones* (IaJ) Vet

Andrew Singer* (AS) UK Centre for Ecology and Hydrology

Rob Smith* (RS) lechyd Da

Isobel Stanton* (IS) UK Centre for Ecology and Hydrology

Eifiona Williams* (EW) Water, Flood and Coal Tips Safety, Welsh

Government

Facilitator(s):

Kirsty Falcus (KF) OCVO, Welsh Government Sian Timms (ST) OCVO, Welsh Government Matthew Witty (MW) OCVO, Welsh Government

1. Welcome and Introductions (Gavin Watkins)

The meeting started at 10:00. GW thanked all for attending, noting that some participants would be late joining. Apologies were noted.

2. Minutes and actions from the last meeting (12 September 2023) (Sian Timms)

a) Minutes

ST advised all that the minutes have been circulated for comments. If any amendments are required, please submit them to MW or WAEAMR DG inbox as soon as possible. GW thanked MW for the excellent minutes.

b) Actions (oldest first)

Action 51 (a & b) - Companion Animal Survey Results

Becca Roberts shared her draft with the DCVO, who has since fed back on it. By the next meeting it should have been published, or a due date, for publication will be shared.

GW added that Becca Roberts will submit it to the Vet Record, in the hope it'll be published as a Peer Reviewed Short Communication. It contains new and unique information. This action remains open.

Action 74 - Consider sharing an advert for a student placement within the Environment Team at WG and amend it to include AMR

ST will follow this action up with AK before the next meeting.

Action 75 – Engaging with agricultural colleges to discuss further engagement on AMR / including AMR in course content

ST explained the context of the action, advising that it has been expanded slightly and taken forward by KF.

KF introduced herself, explaining that she has almost completed her PHD in AMR at the University of Nottingham. Curricula for agricultural courses has been reviewed for evidence of AMR related content. There was generally none to be found. KF has since contacted colleagues in Education (WG) to investigate introducing AMR into coursework, and responses are being received.

ST added that we are also looking into the prospect of including AMR at a Primary School level of education, to maximise opportunity. This action remains open.

Action 78 – Establish a Focus Group looking at the Companion Animals approach

ST reported that further to an excellent presentation given by SC, WG have had an internal discussion about how we take this forward. GW will touch on this during the OCVO update. The action remains open.

GW thanked ST for the update, and KR for giving her introduction, noting it's great to have her on the team.

3. DEEP DIVE – Veterinary Surveillance of AMR (Tamsin Dewé and Chris Teal)

GW introduced the next item, explaining that this meeting will focus on two big themes. GW expressed how delighted he was that TD and CT, both experts in

the field of AMR, could join today to give updates and thanked both for giving up their time.

a) How we monitor AMR in the Animal Sector (Surveillance) (Tamsin Dewé)

GW offered collective congratulations to TD for being awarded a PHD by Imperial College London, and was on the relationship between antimicrobial use (AMU) and AMR

TD thanked GW for the introduction, explaining that this will be a high-level overview of the state of AMR surveillance in the UK. TD will then hand over to CT who will go into some specific details on the work APHA has been doing to develop that surveillance.

TD spoke to her presentation 'AMR Surveillance in the UK'.

- Referring to Slide National Biosurveillance Network (NBN): workstream 5
 (AMR), GW queried whether there were any private veterinary laboratories
 based in Wales, whilst acknowledging Welsh Practices submit to private
 laboratories in England.
- TD confirmed Wales had not opted out. A decision was made to run the pilot in England. It would be useful to pick up this discussion separately, in terms of the private laboratory landscape in Wales, because the next phase of this project would be to incorporate all four UK Nations.
- GW concurred that there will be a significant number of submissions and samples that originate from practices, animals, and owners in Wales; but they're held in laboratories based in England and Scotland.

TD continued with her presentation.

 Referring to Slide NBN, CT felt there is a big difference between the RESAPATH (Le Résapath (réseau de surveillance de l'antibiorésistance des bactéries pathogènes animals) and the laboratory network in the UK.

- RESAPATH funds and develops a consistent methodology between all laboratories (in France). We do not have this in the UK.
- TD thanked CT for his comment agreeing that RESAPATH have a standardised method. When they first started the initiative 40 years ago, the barriers to participation were quite low. As the programme has matured, there's been a move to standardisation. We'll exploring this further through the NBN work.
- GW sought clarification that the private laboratories have agreed common methodologies.
- TD concurred. It has been interesting discussing this topic with French colleagues. The laboratories participate on a voluntary basis. Support to laboratories is given and an annual conference is held to boost participation opportunities.

TD concluded her presentation on the topic of the **Third UK One Health Report**. It was jointly produced by VMD and UKHSA, with input from multiple collaborators across the UK. We tried to promote One Health thinking and collaboration, and all are encouraged to review the report. It brings together our existing AMR data in a new way, and improves our interpretation of trends, making it easier to identify where we should focus interventions.

GW thanked TD for the excellent presentation. The gap analysis approach taken is very helpful – there is a direct link to the discussion about the next 5-year National Action Plan, which is an opportunity to fill those gaps. GW emphasised the point about reviewing the Third One Health Report – it is highly recommended.

CT spoke to his presentation, advising that TD gave an update on the broad areas, whereas he covers veterinary bacterial pathogens, indicator organisms, and zoonotic organisms.

There is legislation covering Salmonella. It's census surveillance in animals – wherever Salmonella is isolated – we get the opportunity to test it. There isn't a

Pan-European harmonised monitoring scheme for the veterinary bacterial pathogens. We have tried to address this gap, and developed a scheme which would work with just three Minimum Inhibitory Concentration (MIC) plates.

- GW queried the origin of **Salmonella Infantis** (SI) and why we should be concerned about Infantis in particular?
- CT advised that SI was first detected and reported in Broilers, in both Israel
 and Central EU. It is a multi-drug resistant clone which has grown stronger.
 It is causing a lot of associated human infections and poultry seems to be
 the source. It is a big public health problem, but not presently in the UK. It
 will cost a lot both in terms of money and human illness if it arrives here.
- GW noted it is an invasive and systemic infection which can lead to a higher fatality rate.
- CH agreed, adding that SI is unusual in that it has a mosaic plasmid called pESI (plasmid for Emerging Salmonella Infantis) which is a higher risk due to its evolutionary speed. It has a toxin/anti-toxin system and a lot of adaptations to help it survive in the farming environment, including Mercury and UV conferring resistance genes.

CT continued with his presentation, noting how raw farm animal / pet food may be a contributing factor. GW thanked CT for his presentation. It was useful to see it all pieced together as a whole narrative – very powerful. Please could all consider questions and advice for TD and CT.

- ST queried the private veterinary laboratories. What is the level of engagement and are they onboard with the plans?
- TD responded, advising that in terms of private lab work, we've already engaged with a limited number. It was interesting to note that their motivations and barriers are quite different. There was no homogeneous place to categorise their appetite for participation. There will be engagement in the new year, as part of the NBN Pilot (expires April 2025.)
- ST asked what do people see as the 'Gold Standard' for Companion Animals

in the future?

- TD advised we're looking at including companion animals in our work.
 There's an EU initiative called European Antimicrobial Resistance
 Surveillance Network in Veterinary Medicine (EARS-VET) which is looking at standardising AMR samples. There are also some PHDs to pilot different surveillance approaches; these will be going out to tender at some stage.
- HM noted the constant new challenges that are emerging. Is this due to better surveillance or are we creating more issues through the way we produce food e.g. chicken production?
- CT agreed, noting some of the issues are related to scale of production (pyramidal). We've always had problems with sourcing calves from multiple sources with a lot of pathogens. We have new diseases and new presentations of old diseases – e.g., type of septicaemia affecting 2–3-month-old calves – we've not seen this before.
- TD added we could be doing more looking at what is happening at the top of a pyramidal production method we need to understand the risks. We could be doing more to understand the non-antibiotic usage drivers of AMR.
- GW noted the pyramidal structure of production is strong in the poultry and pig sectors. The current NAP has 5 major headings, the first being 'Infection, prevention and control' quite simple – hopefully we can keep the emphasis on biosecurity in the next plan.
- IL spoke regarding SI in dogs, poultry, and raw pet food. There are pros and cons. Is the increase in dogs related to poultry, or raw pet food. Secondly if it is the pet food, is it the type?
- CT advised that in dogs and raw pet food, we're identifying lots of types of drug-resistant Salmonella. We don't know if the broilers and dogs are connected – but they're all potential sources. The raw pet food is also a source for humans. We're working with HSE to understand how dog and human cases may have evolved. Human hygiene (or lack of) is a big risk factor.

- GW spoke about the recent case of a Seal infected by human sewerage.
 How do we know this wasn't caused by farm effluent? Can we through
 surveillance distinguish between AMR spread in the environment of animal
 origin vs human origin. Is there a way epidemiologically or
 microbiologically to determine if it's human.
- CT said this is a great question. We have considered this in other contexts.
 If you think about carcass contamination in slaughterhouses. The bacteria can come from animal, human, or plant machinery. We look at the viruses on the carcass using PCR tests. You can find human enteric viruses on animals which again points to poor human hygiene (lack of hand washing). Tests indicate that cultures from animals were already resistant to human drugs.
- GW noted this was very interesting and did not know viruses can be used as a marker, to extrapolate data and find their source.

4. Round table updates

- 1. One Health (Peter Jones)
- PJ spoke to his brief presentation, which demonstrated how WG was working with partners, and delivered via the One Health Group, chaired by the CVO. PJ gave assurance from the HSS Group, representing the whole of WG, that One Health is taken seriously.

GW thanked PJ for his update, acknowledging it would be good to pick up on NAP later in the meeting. A paper went to the FM's office this morning – which was jointly submitted by three Ministers.

b) VMD (Tamsin Dewé)

GW reminded all that the regulation of veterinary medicines isn't devolved – it's

reserved and sits with the VMD.

TD presented her update from the AMR team.

- UK VARSS report Published in November. In 2022, UK sales for veterinary antibiotics for food producing animals has dropped by 59% since 2014 - the lowest yet recorded. Sales of antibiotics that are critically important to human health, have seen a reduction of 82% reduction since 2014. Key outcome indicators for resistance indicate a trend in decreasing resistance generally.
- One Health report Brings together data in a holistic and integrated way.
 The sales data is most pertinent. Two thirds of antibiotics are used in the human sector one third in animal sector.
- International Meetings In November a UK Government delegation attended the inaugural meeting of the newly established AMR Partnership Platform, led by the Quadripartite Antimicrobial Resistance Multi-Stakeholder Partnership Platform. The highlight was the appointment of UK CVO Christine Middlemiss to the steering committee. The UK and VMD also attended the recent Transatlantic Taskforce on Antimicrobial Resistance (TATFAR) meeting – the first since the UK joined in 2021.
- Veterinary Medicines Regulations The VMD is in the process of amending them in respect to GB, which will strengthen our law on responsible usage of antibiotics. There is no timescale yet.
- CT queried if the UK is mirroring the EU in terms of legislation?
- TD advised that this would be better answered by Fraser Broadfoot.
- GW noted that the EU are changing regulations to stop the prophylactic use
 of antibiotics. There were conversations about whether we would copy the
 text. We've chosen to slightly amend the text to include additional steps but
 keep as close as possible to the EU regulations.

 CT added that in the EU, vets are now being prevented from using advanced human medicines in companion animals. This has huge implications for companion animal medicine.

ACTION: Investigate if the UK will mirror EU legislation, with regards to restricting the use of advanced human medicine in companion animals and establish a timeline for implementation. (TD)

GR advised that the group did respond to the consultation when it was open and raised issues around the wording of the prophylactic use of antibiotics.

- GR queried the Quadripartite Platform. Catrina Prince (Antimicrobial Use, Stewardship and Stakeholder Engagement Manager, VMD) has asked the Veterinary Prescribing Champions Network (VPCs) to join the QP. Do you know how many different groups from the UK are part of it?
- TD advised that Aisling Glennie (Head of Policy and Communications, VMD)
 will know.

ACTION: Report back on which UK groups are part of the Quadripartite Antimicrobial Resistance Multi-Stakeholder Partnership Platform. (TD / AG)

- GW added that a VMD colleague (Klara) attended the most recent Defra Antimicrobial Resistance Coordination (DARC) Group meeting. This may be another contact to engage with. TD agreed and will connect GW and GR with Aisling and Klara from VMD.
- GW reminded all that the Royal College of Veterinary Surgeons (RCVS)
 professional regulation on the definition of animals under vet care came into
 force September 2023. This has quite big implications on the prescribing
 and use of antibiotic in the veterinary sector.
- GW advised from the perspective of the VPC Network, it could have huge implications. However, it aligns quite well with our voluntary code of conduct. We are very concerned about loopholes; lechyd Da met with

practices yesterday to discuss this. We hope it will improve oversight of care.

IL reported that Rob Smith led the meeting yesterday, which was very well attended. Please contact Rob directly for more information.

GW explained to all that the RCVS has tightened up the rules on when and what conditions a veterinary practitioner can prescribe an antibiotic for an animal. The default position is to clinically examine the animal – or keep a record why this was not done (for auditing purposes).

c) DG Members

Sarah Carr

- In the most recent membership survey carried out by the BVA (Voice of the Veterinary Profession), it was reported that 86% of veterinary surgeons felt that the prescribing cascade system had led to prescribing decisions that were not good practice. This may be down to the way questions are interpretated. Only 35% felt that clients knew what AMR was. The smaller clients less so.
- Regarding the RCVS guidelines, there have yet to be any negative effects yet. But it has created a discussion on the topic, which is raising awareness.

SC clarified the function of the cascade system (the order in which antibiotics are to be prescribed.)

- 1. Prescribe a drug which is licensed for use in that species first.
- 2. Prescribe a drug which is licensed for a different use in the same species.
- 3. Prescribe a drug which is licensed for a different use in a different species.
- SC reported that some Farming Connect funded **DrenchSmart** testing was carried out on 100 lambs on her farm recently. It would be great if producers

- could access a similar test for antibiotic resistance, to get baseline results for their farm.
- GR advised that the complicating factor with AMR is that we understand the
 pathways of resistance for anthelmintic resistance, which is very farm
 specific. Whereas with AMR the transmission is more complex. What would
 we then do with that information?
- TD reported that the kind of diagnostic test being proposed isn't currently available. As GR has indicated, a simple snapshot may not help. It does highlight the underreporting and recording of treatment failures though.

ACTION: Consider ways to generate a snapshot of AMR on a farm, how the data could be used to reduce levels of AB prescription / usage, and improve reporting of treatment failures.

GW spoke about the next National Action Plan. We want anyone prescribing antibiotics to have a full awareness of both clinal efficacy and resistance risk.

TD spoke about pen side testing to diagnose the pathogen. If bacterial infection can be ruled out, prescription of antibiotics can be avoided. The Gold Standard would be pen-side testing for resistance genes, and this is something we could work with human health colleagues on.

HM reported that the farming industry is disappointed with the end of the **Glastir Organic Schemes**. The interim Habitat Wales scheme which has little respect for nature. Organic farmers feel undervalued and may change their production methods to adapt to the loss of income.

GW acknowledged the predicament farms reliant on support may be faced with, and agreed this may lead to increased numbers of animals and possible lowering of standards.

All were reminded that over 5,000 farms in Wales voluntarily record their antibiotic usage via WLBP – farmers are doing their bit.

Gwen Rees

- GW reported that ARWAIN DGC have enrolled another 6 practices to join the network. We now have over 90% of farm practices in Wales. We have spoken at the BVCA event in Telford, and the London Vet Show.
- GW will be giving a keynote at the **AACTING** conference in Vienna, in February 2024. Policy makers from across the EU should be in attendance, and it'll hopefully be a nice opportunity to showcase the impact of our work.
- Dewi Hughes recently spoke at the Australian Antibiotic Resistance Conference and gave an overview of how ARWAIN DGC have brought together different partners in Wales.

GW thanked GR for her update.

Holly Tipper

 At the last meeting, AS presented a proposed pilot study to look for AMR in the environment. Unfortunately, funding was not available to take this forward.

GW thanked HT and advised that we'll await an update from AS at the next meeting.

Ifan Lloyd

Referring to the BVA survey. About a year ago, when still practicing, I was
at a meeting related to AMR, and noted the level of awareness in small
animal colleagues was significantly lower than those in the farm sector. Our
awareness has come from working with food producing animals and the
work ARWAIN DGC has put in. By now, our small animal colleagues will be
far more up to date.

- Referring to ARWAIN DGC's presentation in Australia, attendees were really interested in how the Veterinary Delivery Partners were engaging with the AMR work in Wales.
- The syndromic surveillance programme, this is now very close to being launched. We will be using a programme called FAVSNET LITE with a select number of Welsh practices. FAVSNET collects electronic health data, directly from veterinary software. It collects the presenting signs of different conditions and medicine usage.

GW thanked IL for the update. We need to measure the burden of diseases that driving antibiotic use. It is part of the infection, prevention, and control element of the current 5-year plan.

a) OCVO

Merged with Item 5.

5. Development of UK NAP and AMR Plan(s) for Wales

PJ introduced himself, advising he is approaching AMR from the human health perspective. AMR causes 7,600 deaths and is associated with 35,000 deaths in the UK each year. We are facing increased resistance to infection, and reduced treatment options. We hope to sign off the next 5-year National Action Plan by March 2024.

PJ spoke to his presentation (Paper D) 'Implementing the UK AMR Strategy in Wales'

GW thanked PJ for his presentation. We've been busy working on this internally in UK, and a lot of liaising with UK Government.

ST spoke to her presentation (Paper E) 'OCVO - AMR - DG Presentation - Implementation of the UK NAP in Wales'

ST thanked HM for the YFC contact details provided earlier in the meeting. We have not approached YFC because we felt with only two meetings left, it may not be the right time.

We would like to consider and take this forward with the renewed Delivery Group. The past five years have proved we cannot deliver on our own; we have relied on the delivery group who has shaped our approach.

GW thanked ST and PJ for their updates, and asked if there were any questions.

- CT queried the overall decline in the usage of antibiotics in animals. The figure in humans is less. Colleagues feel the numbers should be the same. What are PJ's thoughts on this?
- PJ acknowledged that this has been raised, and target setting will be discussed later this week. Some discussions have questioned what the baseline should be. We've heard a lot today about how infection/ or use of antibiotics in people can enter the food chain. I do not know what the differences are or why the figures are not the same.

GW noted that the current 5-year plan for AMR control in animals and the environment is (deliberately) light on quantitative targets. That's because we focussed on getting data to act as a baseline - we have that in parts now.

We have some measures in place now in Wales, now we need to think about how best to make use of this information. If you look at the last NAP, and the next – what is different? The conclusion is that not much has changed – the information is just presented in a different way. The animal sector was in a very

different place 5 years ago, whereas the human side was always very data rich.

With the conclusion of presentation, members were asked how they would like to be kept in touch with during the process of creating the next NAP. The consensus was e-mail would be preferred.

CT queried the collection of adverse effects data. It's well monitored for humans, and it's quite a critical thing we should be capturing for animals. How are we measuring this and the animal impact?

With no further comments, the presentations ended.

6. AOB

These will be circulated by e-mail after the meeting.

GW thanked all for volunteering their time today. We could not do this on our own – your guidance, help and support are very much appreciated.

ST advised we'll be busy working on internal things over the next few months. If any Delivery Group members have any comments or feedback – please send them to the WAE.AMR.DG mailbox. **WAEAMRDG@gov.wales**

GW concluded the meeting expressing how this is a very exciting time. There is a really good stream of work on AMR control on animals in Wales. We have a strong platform to build on, and we should look forward, be ambitious, and do something better in next 5 years.

With no further business, the meeting finished at 13:00.

