



Llywodraeth Cymru  
Welsh Government

PUBLICATION

# Animal and Environment Antimicrobial Resistance Delivery Group meeting: 06 December 2022

Summary of the meeting held online on 6 December 2022.

**First published:** 16 March 2023

**Last updated:** 16 March 2023

This document was downloaded from GOV.WALES and may not be the latest version.

Go to <https://www.gov.wales/animal-and-environment-antimicrobial-resistance-delivery-group-meeting-06-december-2022-html> for the latest version.

Get [information on copyright](#).

# Contents

## Present

## Apologies

1. Welcome, Apologies and Introductions (GW)
2. Minutes and actions from the last meeting
3. Round table updates
4. Break
5. Development of the 2024-2029 Implementation Plan
6. AMR and use of antibiotics in the poultry sector
7. AOB
8. Date of next meeting – 21 March 2023

## Actions

**This document was downloaded from GOV.WALES and may not be the latest version.**

Go to <https://www.gov.wales/animal-and-environment-antimicrobial-resistance-delivery-group-meeting-06-december-2022-html> for the latest version.

Get [information on copyright](#).

# Present

Thomaz Andrade, Welsh Government, Water; Andrew Singer, UK Centre for Ecology and Hydrology; Holly Tipper, UK Centre for Ecology and Hydrology; Isobel Stanton, UK Centre for Ecology and Hydrology; Rob Smith, Vet, DG member, Arwain DGC; Gavin Watkins, OCVO, Welsh Government; Sian Timms, OCVO, Welsh Government; Chris Teale (Via Teams), Animal and Plant Health Agency, DG member; Thomaz Andrade, Welsh Government, Water; Robin Howe, Public Health Wales; Henrietta Kodilinye-Sims, Poultry Vet, Guest Speaker.

# Apologies

Kitty Healey, Veterinary Medicine Directorate; Hywel Morgan Organic Farmer, DG member; Ian Jones (Via Teams), Vet, DG member; Rachel Walker, DG Member, Farmers' Union Wales.

## 1. Welcome, Apologies and Introductions (GW)

## 2. Minutes and actions from the last meeting

Sian: Action 037 is being parked until our next catch up with Dewi and the Arwain DGC team, where we hope to also catch up with WLBP who are likely to provide these figures. Are you happy with this Ifan?

Ifan: Yes, what I was going to suggest.

Sian: Action 059: Suggest we keep this open for the time being and perhaps in 2023 we can see what direction this is moving in.

This document was downloaded from GOV.WALES and may not be the latest version.

Go to <https://www.gov.wales/animal-and-environment-antimicrobial-resistance-delivery-group-meeting-06-december-2022-html> for the latest version.

Get [information on copyright](#).

Thomaz: we are trying to secure the finance for the next phase of this work. We will have a PHD student early in the new year, so there is a possibility that they will be able to look into microbials. May need to contact vets on the DG and will direct via the secretariate.

Action - put Thomaz in touch with Dewi/ DG Vets when next phase of Water Branch monitoring work finds necessary funding.

Gavin: For the last action on the Food Industry Initiative, I just wonder whether we should invite The Food Standard Agency before we invite the private sector to comment. As the FSA try to stop the spread of AMR through the food chain.

Andrew: It might be worth having them update the group on what is being done through PathSafe. Most of it has a foodborne link but there is definitely an environmental aspect. Path-Safe lead: Rachel Baird

<Rachel.Baird@food.gov.uk>

Action to contact Rachel Baird and find a speaker for the Delivery Group.

Ifan: Agree in relation to FSA. In terms of retailers, might also be useful to get an update. They also work closely with assurance schemes, so may be able to get some intelligence from Iestyn Jones.

Action to get a contact from Iestyn to get a speaker for the meeting, which includes the FSA.

## 3. Round table updates

### Round Table Updates:

#### One Health Update

Robin: No update, will provide a detailed update at the next meeting.

#### VMD Update

Gavin: VMD will share a written update.

#### Environment

Thomaz: extremely limited on resources. The main point to update is funding of the AMR work. The PhD student will be looking at chemicals in water and may also look at pharmaceuticals in water sources, which may link to AMR.

Gavin: The monitoring of pharmaceuticals in water sources. Isn't this already done? So could you clarify what has been done already and what still needs to be done.

Thomaz: Diazinon is on our radar, but no other pharmaceuticals are monitored on a regular basis. We do have 12 sites in Wales on rotation, looking at 3000 substances. Antimicrobials directly, are a very small number. But overall, not a lot of data.

Gavin: What are you sampling exactly? Which water sources? The risk pathway here is that there will be residue of antibiotics in water that will cause health risks in people and animals. The reason I ask is, would it be useful to focus sampling in high risk water bodies. I'm just wondering if we could target discharges that come out of hospitals or farms for instance?

Thomaz: (Slides presented at this point) This is our Passive Sampling Programme. A generic emerging contaminants programme. We do have a site near a hospital in Wrexham. A tributary of the Dee that receives treated water from the hospital. As far as I'm aware, all other hospital water goes to sea. Apart from perhaps Merthyr and Pontypridd. Also have one near the river Avon which is near a pig farm.

Andrew: I see two AMs on that list of top detections by frequency.

Robin: The wastewater team in Bangor Uni are developing testing from hospitals to look for a range of resistance genes.

Gavin: We'll have to take this offline but want to see what cross over we can implement between this work and the gene work being done.

Thomaz: Work is being done by Cardiff and Bangor unis, looking at samples downstream of hospitals. There could be scope for linking these samples with molecular samples. We look at molecular samples, but they are more ecological assessments than AMR.

Action to look at the chemical monitoring and see how it can be integrated with wider monitoring.

Andrew: We do have a plan to integrate the PathSafe work. Unfortunately none of this work is in Wales. CFAS aspirations are to find pathogens and AMR sources, from food sources, as this is the source of the funding. This is going to happen in early 2023 for a year.

Isobel: We're still waiting for the second phase of Welsh Gov work and how we apply for funding on this. Did that report get circulated?

Thomaz: Yes, but not hugely circulated.

Sian: It was circulated among the Delivery Group.

Isobel: The work we have been doing with Health and Social Care is a review of everything we could find in the UK about how the water industry has responded to the AMR NAP. It is currently with the HSS and will hopefully be able to share this with you soon once it is shared with the public. In terms of Environmental agency work, all under PathSafe, one of them is with the University of Exeter. Holly has been working on biocides.

Holly: We recently handed a report into the Environment Agency, looking at the potential for existing wildlife schemes to be adapted from AMR research, and secondly to provide a review of the literature on the state of AMR in wildlife globally. We also went through and evaluated existing English monitoring wildlife schemes. We evaluated them to see whether AMR could be an easy addition to these monitoring schemes. Although it is English monitoring schemes, it is of course very relevant to Wales also.

Andrew: The antifungal work is extremely novel and tries to work on what levels policy makers would want to aim for.

Isobel: We've collected about 400,00 data points through water for this. We hope to develop mitigation strategies for antifungals in the environment from this work.

Andrew: Antifungals that are seen as a higher risk in Wales, with P-nces for resistance rather than harmful levels could be included in that list you showed us, Thomaz.

Thomaz: There is an ambition in the Welsh Gov Water Branch is to try and harmonise water monitoring in Wales. As currently, so many monitor on an individual level. There is still quite a resistance to molecular monitoring in the industry however. With covid we had this major boost in capacity in molecular work however, so this is an area to explore. But it is currently at the "nice to have" stage and need to look seriously at the next steps and logistics.

Gavin: Just wondering if it would be useful for this group to set out, what the optimal monitoring system would look like in Wales. To help inform decisions in the future. In very high level, succinct terms. Action to coordinate a briefing which sets out what optimal environmental monitoring system, would look like in Wales.

Andrew: For maximum effectiveness, you would want to bring in all the stakeholders you mentioned earlier Thomaz. The hard bit is communicating with all those groups, so you get the most out of this exercise. The challenge is, how do you coordinate academics. But you can coordinate governments and citizen scientists.

Gavin: It could be a strawman proposal that others could then comment on in

the future. It would go through what we would sample and what we would look for.

Holly: It sounds really useful to have this information, but it is really going to depend on the research question itself. So the question is key here. That could be talked about in this decision document, however.

Gavin: The reason we are here is health protection, as we are a one health group. Therefore, my view is that human health would take the priority in the question we are answering.

## Arwain DGC Progress

Ifan: Last time we met in Cardiff, there was a very detailed update on the different aspects of the project. This project comes to an end as the RDP funding ends, in late spring 2023.

Presentation showing progress to date, the following summarises progress of workstreams:

- WLBP: AMU data collected from over 2,500 (Beef, Sheep and Dairy) farms across Wales
- Menter a Busnes: 12 Proof of concept farms established to trial new technology to reduce the need to use antibiotics
- Aberystwyth University: Over 50 Veterinary Prescribing Champions (representing all large animal vets in Wales) continued to be trained and mentored and are developing industry led guidelines and code of conducts on the use of antibiotics.
- Iechyd Da: Syndromic surveillance data is being captured from farms, allowing vets to collect and feedback information to a central database.
- Iechyd Da: Biosecurity App to assess general farm biosecurity. Over 85% participating farms completed first phase.
- Bristol University: 1,850 samples have been collected from 43 farms across Wales to map AMR in the environment. 329 whole genome sequences completed looking for resistance genes. Looking at phylogeny, investigation

**This document was downloaded from GOV.WALES and may not be the latest version.**

Go to <https://www.gov.wales/animal-and-environment-antimicrobial-resistance-delivery-group-meeting-06-december-2022-html> for the latest version.

Get [information on copyright](#).

if there is evidence of transmission between farms.

Gavin: On the guidelines and code of conduct being worked on by the Prescribing Champions, could you send us any current drafts at this point, rather than at the end of the project.

Ifan: Sensible thing would be to discuss with Alison Bard and the others at Aber Uni. Action to chase this with Aberystwyth University.

Robin: I would be interested to see the way the guidelines are structured. Action to share with PHW also.

Gavin: Would be useful to receive an interim report on Bristol Uni work. Action to seek an update from Bristol University's work.

## **OCVO**

Gavin: Internal Welsh Government review that we've contributed to. Along with an interview with HSS also. Pathsafe projects to improve surveillance in abattoirs. Also, in food retail environments. We've been in discussions with other UK administrations about the prophylactic use of antibiotics. As the EU has tightened up regulation on prophylactic use. We aren't going to match word for word, but we are going to heavily restrict use. If they are used, there has to be a well-documented explanation and history of the case.

## **DG Members**

Chris Teale: APHA update overlaps with Gavin's, in that we are involved in development of National Action Plan. Involved a lot in the Pathsafe work. One is on feed and what resistance levels are in raw feed ingredients and compounded feed. Robin mentioned the 3 river catchments that are being studied quite intensively. We are hoping to link into that with some dairy cattle.

Andrew: Can you elaborate on the comment on exposure to cattle to rivers was the problem? How did you find that?

**This document was downloaded from GOV.WALES and may not be the latest version.**

Go to <https://www.gov.wales/animal-and-environment-antimicrobial-resistance-delivery-group-meeting-06-december-2022-html> for the latest version.

Get [information on copyright](#).

Chris: What we are trying to establish is a measure of cattle herds across the country. Looking at bulk milk and go from there. When you set these studies up, stakeholders worry about what outcomes might be and obviously we have to gain permission for something like this. Of course, this is bidirectional, so what resistance in the rivers might end up in the cattle.

Andrew: So if it doesn't get into the milk, its not on your radar?

Chris: Yes, we don't have resources to look in the cattle itself. And it might not work as milk is meant to be produced as cleanly as possible.

Gavin: To clarify on that, the bacteria that end up in the bulk milk, this is what would be of highest risk to human health. But this could just be as a result of contamination. Is that right?

Chris: I believe so, yes.

Rob: With bulk milk, inadequate plant cleaning and other factors can also contribute to contamination.

Chris: Ultimately, we want to find out what is consistent between herds and what is variable. But we are assuming samples will have gone through the cow.

## 4. Break

## 5. Development of the 2024-2029 Implementation Plan

A follow up email was sent after the meeting, to make up for time.

## 6. AMR and use of antibiotics in the poultry sector

A presentation from Henrietta Kodilinye-Sims on the Poultry Sector and AMR. And specifically, what is different about the poultry industry that has enable such success in regards to AMR control. The following is a summary of the main points.

Where we can learn a lot of lessons is in broiler, as this is where the biggest successes lie. Here are some of the key reasons for success:

- Internal engagement has been key to the poultry sectors success.
- ESBL emergence.
- US companies weaponizing antimicrobial use for competitive advantage.
- BPC agreed to work to gather data.
- Previously, pigs and poultry were grouped together, and it was suspected that a lot of the high usage figures was from pigs. Which is why the step was made to separate the two.
- Natural competition between companies.
- Driven from within, positive messaging.
- Change has been driven by understanding the psychology of the producers.
- Integration provides opportunities for industry to get behind and make change.

More work needs to be done on human behaviour aspects as that is often the key driver for change. Human factors have a big part to pay, quality of work environment and pay for instance.

### Issues seen in backyard flocks and how these can be addressed

Frankly appalling veterinary education. There is a significant difference between

This document was downloaded from GOV.WALES and may not be the latest version.

Go to <https://www.gov.wales/animal-and-environment-antimicrobial-resistance-delivery-group-meeting-06-december-2022-html> for the latest version.

Get [information on copyright](#).

AM prescribing practices in pet hens compared with commercial. Shocking figure of 40% Fluoroquinolones in pet hens.

## **Action to consider training for vets on backyard poultry**

Why the discrepancy in prescribing habits in companion animal vets compared to commercial? Highlighted are what I think are the key factors:

- Competence at thorough physical examination
- Understanding of common poultry conditions.
- Awareness of categorization of antibiotics
- Awareness of additional ethical obligations of treating food producing species
- Lack of knowledge of cascade

I worry the review of the RCVS 'under care' review might make companion usage worse. Solutions in companion animal sector

- Upskill vets in practice
- Companion vet champions initiative
- Allow remote prescribing by poultry vets with relevant expertise
- Educate future vets by encouraging vet schools to engage in poultry curriculum for companion animal work.
- Least important as it should be vet led but – owner education, free modules as part of poultry education.

Action to consider free module for backyard keepers, voluntary or compulsory tbc.

Ifan: You mentioned a module for bird keepers, at the moment, registration is required only if over 50.

Henri: In England, they are planning to significantly drop that number. The main

question is, what incentive do they have to register? And free education could be that incentive.

Gavin: Our plan, along with DEFRA, is to drop that number from 50 to 1.

Andrew: You had a slide on how they achieved it. I was curious to see why was there nothing on there about biosecurity?

Henri: It absolutely was a factor in the improvement. The slide covers more on why poultry is different from other industries.

Andrew: Does that mean that other sectors have tried to improve biosecurity and failed, where the poultry sector have succeeded?

Henri: I think it is more that it is much easier for the poultry industry to enact top-down change. Whereas trying to get every sheep farmer in Wales is much more difficult. It goes back to that point of centralisation and the fact that poultry farms are owned top to bottom.

Thomaz: Do you have any thoughts or observations on the pathway/risk of farm AMR reaching water sources?

Henri: Storage and spillages is a low risk. Excretion comes in various forms, but I wouldn't know specifics.

Gavin: Poultry that are housed generate quite a lot of manure and that is used as a fertilizer. Is that a cause?

Henri: The industry is trying to move away from this but yes this is the case. And it is untreated.

Rob: In the dairy and beef industry, there are bodies such as supermarkets and assurance schemes can drive change and can be quite influential. For instance, when the supermarkets said, you aren't going to use HCAI's, usage stopped.

Chris: You didn't mention all in all out as a factor. Do you think this is an influence in the backyard sector as well?

Henri: I just don't think they are comparable unfortunately.

Ifan: Regarding the reduction data you showed us earlier, where is the commercial sector in respect to prophylactic use?

Henri: It isn't used prophylactically generally. Only in exceptional circumstance where adult birds are infected, and we know chicks would also be impacted.

Gavin: We gave a housing order last week. Should we worry about an increase

in infection rates? Just seeking your personal thoughts on this.

Henri: A good way would be to look at VARSS rates last year as an indication.

Of course, when housed, parasite levels may increase and similar impacts.

When it comes to pets, there would be definitely the case. So, we are definitely more concerned with the backyard industry.

## 7. AOB

AOB – (Covered via email)

- DG vacancies
- 2023 virtual meetings
- 2023 in-person meeting

## 8. Date of next meeting – 21 March 2023

### Actions

1. Put Thomaz in touch with Dewi Hughes/ DG Vets when next phase of Water Branch monitoring work finds necessary funding, to support the completion of action059 - Secretariat, Thomaz Andrade.
2. Contact head of PathSafe project, Rachel Baird, and source a speaker for Deliver Group quarterly meeting - Secretariat.
3. Action to contact Iestyn Jones of WLBP Ltd to see if he knows a contact at the FSA, to find a speaker for a quarterly meeting - Secretariat.
4. Coordinate and draft a decision document which sets out what the optimal

This document was downloaded from GOV.WALES and may not be the latest version.

Go to <https://www.gov.wales/animal-and-environment-antimicrobial-resistance-delivery-group-meeting-06-december-2022-html> for the latest version.

Get [information on copyright](#).

environmental monitoring system, would look like in Wales - Thomaz Andrade, Andrew Singer, Isobel Stanton, Holly Tipper, Secretariat.

5. Seek interim reports on the Arwain DGC work streams: prescribing guidelines and code of conducts by Aberystwyth University's VPCs; the environmental sampling work being done by Bristol University - Secretariat.

6. To consider training for vets on backyard poultry - Gavin Watkins.

7. Action to consider free module for backyard keepers (voluntary or compulsory tbc) - Gavin Watkins.

**This document may not be fully accessible.**

For more information refer to our [accessibility statement](#).

**This document was downloaded from GOV.WALES and may not be the latest version.**

Go to <https://www.gov.wales/animal-and-environment-antimicrobial-resistance-delivery-group-meeting-06-december-2022-html> for the latest version.

Get [information on copyright](#).