

DEFRA ANTIMICROBIAL RESISTANCE CO-ORDINATION GROUP

SUMMARY MINUTES OF FIFTY-FIFTH MEETING

2nd June 2015, 11:00-16:00

Present:

Veterinary Medicines Directorate (VMD)

Department of Health (DH)

Agri-Food and Biosciences Institute (AFBI)

Animal and Plant Health Agency (APHA)

Department of Agriculture and Rural Development - Northern Ireland (DARD-NI)

Centre for Environment, Fisheries and Aquaculture Science (Cefas)

Public Health England (PHE)

Scottish Government (SG)

Food Standards Agency (FSA)

Welsh Government (WG)

Biotechnology and Biological Sciences Research Council (BBSRC)

1. Welcome and apologies

1.1 Apologies were received from DARD-NI, VMD, FSA, PHE, Department for Environment, Food & Rural Affairs (Defra), Food and Environment Research Agency (FERA), Health Protection Scotland (HPS), and Public Health Wales (PHW).

2. Approval of Summary Minutes (55.02)

2.1 Summary minutes from the February DARC meeting were approved.

3. Matters arising

No outstanding matters.

4. Presentation of R & D Projects: APHA

4.1 APHA presented the interim results from a VMD funded research project (VM0508), 'A study to evaluate optimisation of current enrofloxacin oral dosing regimes in broiler chickens, in order to, prevent the selection of fluoroquinolone-resistant campylobacters, *E. coli* and *Salmonella* whilst maintaining efficacy and animal welfare.' The project investigated the activity of fluoroquinolones alone and in combination with other classes of antimicrobials in broiler chickens and turkeys. The study focused on investigating the pharmacokinetics and pharmacodynamics of dosing regimens, the accumulation of resistance mutations associated with fluoroquinolones and the impact of antimicrobials on the gut microbiome through a combination of in-vitro and in-vivo studies.

5. Update from DARC/ARHAI

5.1 VMD and PHE updated DARC on progress with the joint VMD and PHE 'One Health Report'. This was undergoing a final review and will be published following approval from the Ministers.

6. LA-MRSA (55.06)

6.1 VMD presented a proposal for a preliminary LA-MRSA surveillance study for the UK. Comments from DARC were invited regarding both advantages and limitations of the proposal. It was emphasised by VMD that the proposal is for a preliminary study in order to establish baseline data for LA-MRSA in the UK.

APHA highlighted that recent published studies showed that the number of hours of pig contact had a bearing on whether a person was positive or not for LA-MRSA. It was agreed by DARC that this needed to be considered in any LA-MRSA surveillance in humans.

6.3 AFBI informed DARC that guidance on controlling the spread of LA-MRSA had been published in Denmark and agreed to circulate this document to the committee.

6.4 APHA sought opinions from DARC on whether offering a diagnostic surveillance service to test farm dust for LA-MRSA was something that would be desirable. DARC agreed that if this was managed carefully then this would be a positive move. APHA agreed to keep DARC up to date on this.

7. The AMR Funders Forum on the Cross-Council Thematic call and associated activities

7.1 BBSRC presented the AMR funders cross-council thematic call on antimicrobial resistance (AMR). Their presentation highlighted the growing concern surrounding AMR making it a political and societal priority. BBSRC outlined that the AMR Funders Forum consisted of public sector organisations, charities and industry and that it has been established to provide a forum for the sharing of information on activities relating to AMR. The thematic calls are as follows: theme 1: Understanding resistant bacteria; theme 2: Accelerating therapeutic and diagnostics development; theme 3: Understanding the real world interactions; and theme 4: Behaviour within and beyond the health care setting.

7.2 VMD highlighted that theme 2 is currently a popular discussion within veterinary medicine as the availability of rapid diagnostic antimicrobial susceptibility tests would be beneficial in targeting antimicrobial use.

8. 'Update on Recent Findings' between 1st February 2015 and 31st April 2015

8.1 Resistance in *Salmonella*

- In England and Wales 24% of *Salmonella* Typhimurium non-DT104 isolates were fully susceptible to all antimicrobials when they underwent sensitivity testing. Reports of monophasic *Salmonella* Typhimurium have decreased by a fifth in comparison with the same reporting period in 2014 but reports of *Salmonella* 4,12:i:- have more than

doubled; pigs were responsible for 71% of these incidents during January – March 2015.

- In Northern Ireland between 1st February and the 30th April, 10 multi-drug resistant *S. Typhimurium* have been detected, with the majority isolated from pig and pork products, and one from a cow. Also between these dates, 15 monophasic *S. Typhimurium* were detected (5 from pork products, 2 from chickens) and 3 multi-resistant pentavalent *Salmonella* were detected (2 *S. Mbandaka* from meal, and 1 *S. Give* from a pig).
- In Scotland, between January and May 2015, 7 *Salmonella Typhimurium* isolates have been recovered from pigs (5 – strain DT193), a cat (1 – strain DT193), and a cow (1 – strain DT104). One pentavalent resistant *S. Bovismorbificans* isolate has been recovered from a dog.

8.2 ESBLs in livestock

- No ESBL producing *E. coli* were reported by England and Wales.
- In Northern Ireland 15 ESBL producing *E. coli* have been identified, 12 from calves (faeces samples), 1 from an adult cow (milk sample) and 1 from a lamb (faeces sample).
- In Scotland, ESBL producing *E. coli* have been recovered from bovine (2), porcine (1) and broiler (1) sources. These isolates have not been typed.

8.3 MRSA in animals

- In England and Wales no MRSA isolates were reported.
- In Northern Ireland, 29 *S. aureus* isolates were tested for ceftiofur resistance. Four isolates (2 from pigs of strains CC30 and CC398, and 2 from cows of strain CC398) were identified from three different premises. No epidemiological follow-up has been conducted for these isolates and they appear not to be linked. In Scotland, between September and November 2014 an MRSA was identified from an equine wound infection (type t067, strain CC5) and from three macaques.

9. ESVAC Project

9.1 VMD updated DARC on the ESVAC project developing protocols for the collection of antimicrobial use data by species across the EU. Following poor uptake from Member States ESVAC has decided not to go ahead with the pilot project testing phase of the ESVAC pig data collection protocol. The next priority species for data collection are broiler and veal calves, with a pilot data collection project for broiler chickens planned in 2016.

9.2 VMD has commented on the ESVAC consultation 'Principles on assignment of defined daily dose for animals (DDDA) and defined course dose for animals (DCDA)'.

9.3 VMD attended a workshop introducing member states to the new electronic system for submitting antimicrobial sales data to ESVAC. The VMD central data hub, which will collate antimicrobial sales and usage data, will be developed to interface with this system.

10. Antimicrobial Usage Data

10.1 VMD provided an update on the progress of the Pig Health and Welfare Council (PHWC) antimicrobial usage subgroup since the last DARC meeting. The development of a system for gathering data on antimicrobial usage in the UK pig sector has progressed and a final specification has been agreed by the subgroup. Data collection will be on a UK basis and the subgroup includes representatives from England, Scotland, Wales and Northern Ireland.

10.2 VMD updated the group on a project that APHA has undertaken to test the ESVAC protocol for collecting antimicrobial usage data on a larger sample of pig farms. This was to further test the practicality of the method and to undertake some initial sample size estimates.

10.3 VMD provided an update on the work of the Cattle Health and Welfare Group (CHAWG) to investigate methods for the collection of antimicrobial usage data in the UK cattle industry.

10.4 VMD updated on the VMD funded VetCompass project recently completed by the Royal Veterinary College (RVC). VMD gave DARC an overview of a project to characterise and quantify current antimicrobial usage in dogs and cats and to try to establish companion animal antimicrobial prescribing behaviour. VMD summarised a stakeholder meeting that was held on the 11 May at RVC to discuss these findings and which was attended by a number of key stakeholders from both the companion and food producing animal sectors.

11. Contingency Planning

11.1 VMD presented the current contingency planning procedures which relate to the response to the identification, from an animal, of a resistant bacterial isolate considered to present a high risk for human and/or animal health. Currently the contingency plan suggests that a teleconference should be held within 24 hours of the identification of an isolate of interest.

11.2 VMD consulted the group as to their opinions on making the contingency plan more flexible with regards to the teleconference; as a teleconference may not be appropriate in all cases and may be more relevant at a later stage following further testing. DARC agreed that more flexibility would be a positive move but agreed with VMD that a teleconference should be held within 24 hours of the identification of a novel pathogen. DARC agreed with the VMD suggestion that an email should be sent to key individuals following the identification of a pathogen.

12. Legislation - Update on revised EU legislation

12.1 VMD updated the group on the current picture with regards to EU legislation. VMD outlined that the monthly EU council meetings have been continuing the technical read-through for the Veterinary Medicinal Products (VMPs) and medicated feed legislation proposals.

13. CVMP Update Paper

13.1 VMD updated the group on CVMP activities since the last DARC Meeting.

13.2 Three new members were elected to the Antimicrobials Working Party (AWP).

13.3 The EMA had received a request from the EU Commission for a 'joint EFSA and EMA scientific opinion on measures to reduce the need to use antimicrobial agents in animal husbandry in the European Union, and the resulting impacts on food safety'. An expert EMA and EFSA group will be set up to respond to this.

14. AOB

14.1 BSAC Conference – ‘Carbapenamase-producing gram-negative Microorganisms’

APHA outlined concern that the flyer for this conference was misleading as it stated that 'the importation of food products has been responsible for introducing these microorganisms to several countries far beyond their country of origin' as a carbapenem-resistant bacterial has only been isolated once in Canada in squid. The group acknowledged this concern and VMD agreed to raise this at the conference as they are attending on 4 June 2015.

14.2 Review of the DARC group current structure

VMD updated the group that they are currently reviewing the composition of DARC and putting a report together.

14.3 Stakeholder Workshops relating to the AMR Strategy

VMD updated DARC that two workshops are coming up that will consider diagnostic tests and what is needed. The first will be a joint human/veterinary workshop, the second human only.

14.4 The Independent Review on AMR (previously known as the O'Neil review)

PHE informed the group that the fifth paper will focus on agriculture and the publication is likely to be in October or November 2015.

14.5 EUCAST update

PHE updated the group that EUCAST have formed a new subgroup to assess the future implications of whole genome sequencing for future antimicrobial sensitivity testing.

14.6 International collaboration on AMR

APHA informed the subgroup that there are plans for future international collaborations on the subject of AMR. Cefas, FSA and BBSRC all shared that they were aware of similar collaborations.

15. Date of the Next Meeting

Tuesday 8 September 2015 11.00 at the VMD