

DEFRA ANTIMICROBIAL RESISTANCE CO-ORDINATION GROUP

REPORT OF FIFTY-FOURTH MEETING

17 February 2015

Present:

Agri-Food and Biosciences Institute (AFBI)
Biotechnology and Biological Sciences research Council (BBSRC)
Centre for Environment, Fisheries and Aquaculture Science (Cefas)
Department for Agriculture and Rural Development (DARD)
Department of Health (DH)
Food Standards Agency (FSA)
Health Protection Scotland (HPS)
Public Health England (PHE)
Scottish Government (SG)
Scotland's Rural College (SRUC)
Veterinary Medicines Directorate (VMD)

1. Welcome and apologies

Apologies were received from: APHA, PHE and FERA

2. Approval of Summary Minutes

2.1 Summary minutes from the September DARC meeting were approved.

3. Matters arising

No outstanding matters.

4. Update on Recent Findings between 1st December and 31st January

4.1 Resistance in *Salmonella*

- In England and Wales the number of *Salmonella* Typhimurium isolates was similar to previous reporting periods and the proportion of non DT104 which are fully susceptible has increased to 43%. For the monophasic *S. Typhimurium*, 79 isolates of 4,5,12:i:- were identified of which 6% were susceptible, 40 isolates of 4,12:i:- were identified of which 0 were susceptible. Two isolates of *Salmonella* Rissen showing pentavalent resistance were isolated from dogs; these follow a finding of *ST198* Kentucky in dogs. The group considered that the feeding of raw meat diets to dogs may be a factor in the appearance of these exotic *Salmonellas* in the UK.
- In Northern Ireland two isolates of *Salmonella* Typhimurium were identified. Three Monophasic *Salmonella* Typhimurium isolates were identified, all with the serotype 4,5,12:i:-, two of which were from pork products. *Salmonella* Agona was isolated from chicken and was resistant to seven antibiotics tested.

- In Scotland 2 isolates of *Salmonella* Typhimurium DT193 were identified.

4.2 ESBLs in livestock

- In England and Wales the number of ESBL *E. coli* isolates identified was similar to last year. It was noted that there was wide variation in the CTX-M types recovered from cattle, whereas the CTX-M types from pigs and chickens were uniformly CTX-M-1.
- In Northern Ireland 5/195 *E. coli* isolates tested were phenotypically positive for ESBL production; all five isolates were from calves and were collected from the liver. It was suggested that this may be due to antibiotic treatment used in cases with diarrhoea; this finding may warrant further investigation.
- No ESBL producing *E. coli* were reported by Scotland.

4.3 MRSA in animals

- One MRSA isolate was reported in England and Wales as detailed in section 5.
- In Northern Ireland no MRSA isolates were identified out of 35 *S. aureus* isolates tested.
- In Scotland, no isolates of MRSA were reported.

4.4 Methods for AST testing

A proposal being considered by SRUC to change from the current BSAC methodology to EUCAST was discussed. Benefits of the change would include greater harmonisation with the medical field and use of confluent growth would increase speed of zone size determination. It was agreed that further consideration and debate was required before a decision could be reached. The group agreed to hold a round table discussion at which the requirements for surveillance and diagnostics should be considered.

5. LA-MRSA

5.1 VMD provided a summary of the finding of LA-MRSA in two 10-day-old piglets submitted to an APHA veterinary investigation centre on 30/12/2014. PHE have confirmed that there do not appear to be any linked human cases. Representatives from APHA and VMD met with the farmers to discuss the finding. The farmers were asked if they would allow further epidemiological follow up on the farm, and after consideration they declined. The finding was reported in the Veterinary Record on 7 February 2015. Industry were alerted to the finding prior to publication and a teleconference was held on the 3 February 2015. The VMD will hold a meeting with

industry to discuss surveillance of LA-MRSA in pigs. Comparison with international isolates is ongoing.

5.2 Options for surveillance were briefly discussed, detailing the merits of studies in humans versus pigs. It was emphasised that surveillance in poultry should be considered as well as surveillance in pigs.

5.3 VMD provided an update on the work of the DARC forum for surveillance of LA-MRSA. In parallel to the conversation that VMD plans to have with industry, the DARC forum for the surveillance of LA-MRSA continues to support their previous recommendation that surveillance should be carried out in people in contact with livestock.

5.4 AFBI will provide the results of follow up investigation from the case in NI, once the information has been cleared by DARD.

5.5 PHE reported that a paper is to be published in a week's time, from a small study investigating the presence of MRSA in retail meat purchased in Greater Manchester.

6. Update on R&D

6.1 VMD provided an update of the currently running AMR R&D projects: VM0506, VM0508, VM0509, VM0515, VM0508, VM0518, and VM0520.

7. Ipsos Mori Survey

7.1 VMD gave an update on an Ipsos Mori survey conducted in November 2014.

The group discussed the key findings of the study, such as:

- There were differing levels of knowledge and perception between genders.
- The perception that resistance can pass between animals and humans appeared to be correlated with level of education.
- Responses differed with area and newspaper readership.
- 80% of the respondent knew that antibiotics require a prescription. However, when asked whether antibiotics administered through feed or water required a prescription, only 65% knew the answer.

8. ESVAC

8.1 VMD summarised a meeting at the European Medicines Agency in which the Member States (MS) provided feedback on their experiences of trialling the ESVAC test protocol for the collection of antimicrobial consumption data from five pig farms. All MS found the method to be time consuming and costly and many expressed serious reservations about how this method could provide representative data in a cost effective way. ESVAC agreed to consider the option of using aggregated data as opposed to data on individual treatments, and whether private sector / industry

data sources could be used. The UK expressed concern that repeating the protocol again on 20 farms is unlikely to generate additional benefits.

9. Pig Health and Welfare Council Antimicrobial Usage Subgroup

9.1 VMD provided an update on progress of the Pig Health and Welfare Council Antimicrobial Usage Subgroup. The priority of the group, set up last autumn, is to determine antibiotic use in pigs. The group discussed the development of a database which will gather data on antimicrobial usage in the UK pig sector.

10. Cattle Health and Welfare Group

10.1 VMD provided an update on the work of the Cattle Health and Welfare Group (CHAWG). VMD advised the work is well underway in the pig and poultry sectors so in the past few months VMD has focused their attention on the cattle sector. A special CHAWG meeting was held in December 2014 to discuss antibiotic usage data collection. VMD also provided an update on the progress being made to capture antibiotic use data in the poultry sector.

11. Update on AMR related activities from lead agencies

11.1 PHE provided an update of the research which they conduct.

11.2 DH gave an update on the work they carry out on AMR

11.3 Cefas gave an update on the work they carry out on AMR

11.4 FSA gave an update of their work on AMR

12. EU Update

12.1 CVMP update paper

An update was provided to the group on activities of CVMP. The Committee for Medicinal Products for Veterinary Use will shortly publish for public consultation its guidelines for industry on the demonstration of efficacy of antibiotic veterinary medicinal products. A guideline on risk assessment, which will provide advice to industry on the data they need to submit and the methodology to use to assess the risk to public health from use of an antimicrobial product is also to be published. This is the first time that EU has published such a guideline. The scope of the guideline will include AMR transmission through direct contact and food borne routes.

12.2 The group discussed the CVMP referral of two products; a colistin containing product and a zinc oxide product.

13. AOB

13.1 “One Health” report

VMD gave an update on the one health report, all the data have been submitted to PHE for collation.

13.2 Update on 2015 AMR Surveillance

VMD reported that pig caecal sampling is going well. Samples are currently collected from six abattoirs covering 60% of throughput in GB. AFBI will start collecting samples in April.

13.3 Science and Technology Select Committee review

VMD reported that George Eustace gave further evidence to the House of Commons Science and Technology Select Committee on AMR in January.

13.4 JIACRA report

VMD provided a summary of the collaborative report between ECDC, EFSA and ESVAC, which aimed to investigate associations between resistance in *E. coli*, *Campylobacter*, *Salmonella* and usage of certain antibiotics within the EU. A key finding was that overall consumption was higher in animals than humans.

13.5 Control of Antimicrobial Resistance in Scotland

Representatives from WG and HPS reported that they are part of Control of Antimicrobial Resistance in Scotland (CARS) coordination group. This group is chaired by CMO Scotland and is mostly focussed on human health. The first meeting was held a few weeks ago. The group aims to promote good biosecurity and health of livestock. CARS is interested in the work of DARC and would like to keep in touch with the group if possible.

14. Date of the next meeting

14.1 Tuesday 2 June 2015, 11am at the VMD.