

ADVISORY COMMITTEE ON THE MICROBIOLOGICAL SAFETY OF FOOD**INFORMATION PAPER****ACMSF Antimicrobial Resistance Working Group
Summary of second meeting of the group held on 6 December 2013**Identification of Livestock-Associated Meticillin Resistant *Staphylococcus aureus* (LA-MRSA) in UK turkeys

1. The group were provided with a press release, research papers and oral update in relation to the recent finding of LA-MRSA in turkeys on a farm in East Anglia.
2. Members were informed that in October 4 turkeys were submitted to an Animal Health and Veterinary Laboratories Agency (AHVLA) lab for diagnosis and Staphylococci were cultured from the lung of one of these birds which proved to be LA-MRSA ST398 *spa*-type t011. The strain was found to be resistant to tetracyclines, penicillins and meticillin but susceptible to a number of other antimicrobials, including macrolides and fluoroquinolones.
3. The group was informed that the strain isolated was common in livestock in continental Europe but had not previously been detected in livestock in the UK. This strain had been isolated in the UK from a few human cases and also detected in horses and in about 5 of 1500 bulk milk samples from dairy herds. In 2007 a survey of UK breeding pigs found that all were negative for this strain.
4. It was noted that AHVLA, Public Health England and the Food Standards Agency had been in liaison over the incident and had issued a press release explaining there was no indication of foodborne transmission of MRSA and the risk of contracting LA-MRSA from eating poultry meat was considered very low. The FSA had also issued a press release reiterating their standard food safety messages about thorough cooking of poultry meat.
5. Following discussion the group concluded that there was little evidence in relation to LA-MRSA in the UK, but the available evidence did not suggest a foodborne issue in the UK or Europe at present. Members agreed to monitor the situation as it develops, both in the UK and in other parts of Europe. The group suggested that inclusion of LA-MRSA in future food surveillance may require consideration.

Research paper on complete genes passing from food to human blood

6. The group were asked for their views on a recent published research paper which suggested that DNA fragments from food consumed by humans can carry complete genes, without degradation into the human circulatory system. This

had raised questions over the potential for transfer of resistance genes to human pathogens via food.

7. Following deliberation the group concluded that although the research raised some interesting questions and suggested transfer of genes into the circulatory system was theoretically possible, it was unlikely to pose a significant risk in relation to the public health risks from antimicrobial resistant organisms. However, it was agreed the group should keep a watching brief on any further research in this area.

EFSA Scientific Opinion on the public health risks of bacterial strains producing extended-spectrum B-lactamases and/or AmpC B-lactamases in food and food-producing animals

8. The group considered EFSA's Scientific opinion on the public risks of bacterial strains producing extended-spectrum B-lactamases and/or AmpC B-lactamases in food and food-producing animals.
9. The group observed that one of the research papers cited in the scientific opinion provided evidence of the important link in the transmission of *E.coli* that produce ESBL from poultry to humans. The study revealed that 35% of human clinical ESBL-producing *E.coli* contained ESBL genes that were also detected in *E.coli* from poultry origin. Members did not disagree with the scientific opinion's conclusions and recommendations. It was noted that the report acknowledged the difference in the way screening for ESBL is carried out in the Member States. The group was informed that there was an ongoing push for harmonisation concerning human and animal ESBL surveillance in Europe.
10. Although the scientific opinion was published in 2011, the group agreed that it had highlighted the importance of ESBLs and/or AmpC-producing bacteria in food and food producing animals. Members pointed out that presently there was lack of evidence of the prevalence of ESBL and/or AmpC-producing bacteria in the food chain.

Work plan

11. The group agreed to invite the Veterinary Medicines Directorate (who are the UK policy lead on AMR in relation to animals) to a future of meeting of the group to brief members on current issues. Other issues the group will consider at future meetings include: the outcome of the conference on the EU AMR Action plan, the Department of Health's AMR strategy implementation plan, findings of a microbiological survey of UK pigs in relation to AMR including ESBL *E.coli*, the EFSA opinion on Carbapenemase resistance and, the risks from imported foods.

**Secretariat
January 2014**