

**ADVISORY COMMITTEE ON THE MICROBIOLOGICAL SAFETY OF FOOD
ANTIMICROBIAL RESISTANCE WORKING GROUP**

A summary of the fifth meeting of the Working Group is provided below for members' information.

The Chair of the Working Group will also provide an oral update on the Group's 6th meeting, held on 17 December 2014.

Secretariat

January 2015

ACMSF WORKING GROUP ON ANTIMICROBIAL RESISTANCE

Summary of fifth meeting of the group held on 9 September 2014

Review of DH AMR Strategy Implementation Plan

The group was updated on the UK Antimicrobial Resistance Strategy that was published in September 2013 and was scheduled to be implemented by April 2014. The goal of the strategy is to slow the growth of antimicrobial resistance (AMR) by taking an integrated approach across human and animal health and the environment at both national and international levels. Implementation of the action plan has been delayed by the House of Commons Science and Technology Committee deliberations on AMR. The Committee published its report *Ensuring access to working antimicrobials* in July 2014. Members were informed that in June 2014 Felicity Harvey (Director General for Public Health) issued an update on progress being made to implement the strategy. It was confirmed that the Government response to the Committee's report was expected to be published by mid-September 2014. Other governmental bodies looking at the issue of AMR include Public Health England, Advisory Committee on Antimicrobial Resistance and Healthcare Associated Infection (ARHAI) and Defra Antimicrobial Resistance Coordination Group (DARC). As there are data and research gaps on the issue of AMR the Medical Research Council is looking across a wide spectrum in trying to address this issue. This may include collaborative working with other research councils and UK funders. The Prime Minister has commissioned an independent review led by the international renowned economist Jim O'Neill to consider the economic issues surrounding antimicrobial resistance.

The group discussed the challenges in tackling issues relating to AMR in the past 20 years. Group to consider the finalised action plan at its next face to face meeting scheduled for February 2015.

AMEG Report. Answers to the requests for scientific advice on the impact on public health and animal health of the use of antibiotics in animals (AMR/48)

The group discussed the report of the European Medicines Agency Antimicrobial Expert Group (AMEG) in response to four question on the impact of antibiotic usage and antimicrobial resistance in veterinary medicine which had been posed by the European Commission (EC). It was agreed that the group should provide written comments on the draft AMEG report.

Comparative Analysis of ESBL-producing *E. coli* isolates from animals and humans from the UK, the Netherlands and Germany (AMR/46)

The group considered the above study carried out between 2005 and 2009. It was initiated following the increased occurrence ESBL *E.coli* in food- producing animals and global increase in the occurrence of *E.coli* with resistance to oxyimino cephalosporins and other antimicrobial agents due to the production of ESBLs. The study investigated the genetic relatedness of ESBL/AmpC-producing *E. coli* from animals and humans from the UK, the Netherlands and Germany. Isolates were analysed using microassays and MLST. Members agreed that study was an excellent collaboration between the different groups/countries and the outcome was valuable.

The group discussed the study methodology and conclusions. Members endorsed the conclusion that stated that approaches to minimize human-to-human transmission are essential for controlling the spread of ESBL-positive *E. coli*. Members agreed with one of the conclusions from the study that indicated that ESBL-positive *E. coli* from animals may represent a reservoir of virulence and resistance genes rather than being the direct cause of infections in humans.

EFSA/ECDC Summary Report on antimicrobial resistance in zoonotic and indicator bacteria from humans, animals and food in 2012 (AMR/49)

The group had received the above report produced by EFSA and ECDC for consideration. 26 European Union Member States had submitted antimicrobial resistance data among zoonotic and indicator bacteria in 2012. EFSA and the ECDC jointly analysed resistance in isolates of zoonotic *Salmonella* spp and *Campylobacter* spp. from humans, animals and food and also resistance in indicator *Escherichia coli* (*E. coli*), as well as data on meticillin-resistant *Staphylococcus aureus* in animals and food. The report highlighted high resistance levels to ciprofloxacin (a fluoroquinolone) in *C. coli* from broiler meat and broilers (*Gallus gallus*) (82.7% and 78.4%, respectively). Lower levels were seen in *C. jejuni* (59.5% and 44.1%, respectively) and in isolates from pigs and cattle (32.0% to 32.9%).

The report provided analysis of high-level ciprofloxacin resistance in *Salmonella* isolates of animal and food origin and listed serovars displaying such resistance. Of note is that a clone of *S. Kentucky* sequence type (ST) 198 with high-level ciprofloxacin resistance detected in human isolates in Africa and the Middle East and has now been detected in poultry in some European countries.

The group commented on the report and members were encouraged to forward further comments to the secretariat. Group's comments would be provided to the full Committee at the next full ACMSF meeting.

Protection of consumers by microbial risk mitigation through combating segregation of expertise (PROMISE) (AMR/50)

The group's attention was drawn to an ongoing research relating to a novel route for the transmission of AMR.

PROMISE (a 36 months study) includes an examination of antimicrobial resistance profiles for bacteria that are isolated from food that is illegally imported into the EU. Sampling plans has been designed taking into account the analytical capabilities of the participating countries that monitor illegal food imports, food types include ready to eat foods of animal origin, mainly meat and milk products. Project is coordinated by the Veterinary University of Vienna. This project aims to identify the risks associated with unmonitored transmission routes for antimicrobial resistance.

Members to receive detailed presentation on this study when it is completed.