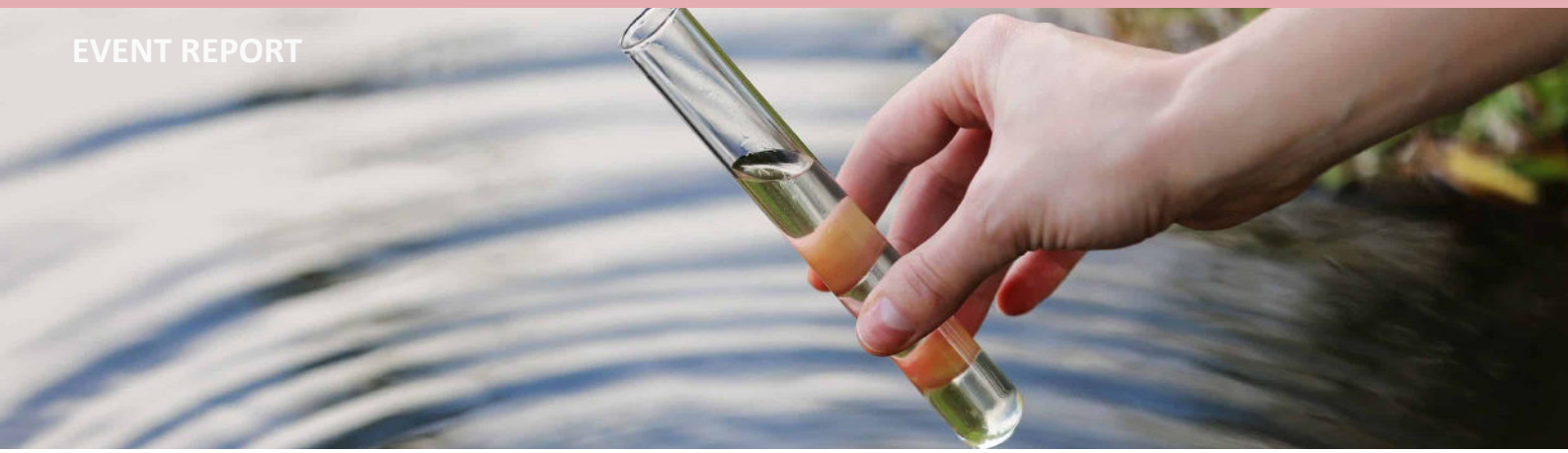
Investigating the environmental dimensions of AMR

MEP Interest Group on AMR Annual Meeting

17 May 2022

EVENT REPORT



Welcome remarks

MEP Nicolae Ștefănuță, vice-chair of the MEP Interest Group on AMR, gave the welcome remarks, highlighting the commitment of the Group to keeping AMR high on the policy agenda. He then stressed the importance of the environmental dimension of AMR, referring to the UN Environment Programme's Environmental Dimensions of AMR Summary Report, published earlier in 2022, which details the sources contributing to rising AMR in the environment, from across the antimicrobials life-span, including pharmaceutical manufacturing, use and disposal in healthcare facilities, animal and crop farming, as well as its presence in human sewage and waste effluent.

Introductory remarks

David Graham, Professor of Ecosystems Engineering - Newcastle University, explained in his introductory remarks that, while Europe is the region with the lowest AMR level per capita, the AMR exposure risk across Europe remains, with wide variations between Member States. This is due to factors such as different levels of antimicrobial use, incomplete coverage of effective waste management, variable dilution in receiving water and combined sewer overflows.

He also mentioned that AMR primarily develops in the gut, due to antimicrobial use but transmission and spread is driven by other factors, including environmental ones.

Session 1 - A life-cycle approach to antimicrobial pollution

The first panel session debuted with an overview from Paschalia Koufokotsiou, Pharmaceutical and Health Policy Expert - European Commission, on the current EU regulatory framework, where environmental risk assessments do not cover manufacturing emissions nor the risks of AMR development and spread in the environment. The Commission is considering extending the scope of environmental risk assessments to risks of production and to risks of AMR development and spread. However, there is still a lack of consensus about the exact contribution of antimicrobial manufacturing to the development of AMR in the environment.

The second panelist, Sian Williams, Senior Policy Adviser - Wellcome Trust, presented three possible regulatory options to curb antimicrobial manufacturing pollution: introducing legislation to set limits for antibiotic discharges coming from pharmaceutical plants, including antibiotic discharge limits in the WHO Good Manufacturing Practice Framework, and including environmental metrics in antibiotic procurement. Wellcome Trust also recently estimated the economic impact of regulation on manufacturing antimicrobial discharges. Their study suggested that most antimicrobial supply chains are resilient enough to take in environmental regulation with particular attention needed nevertheless for molecules treating niche indications notably.

MEP Sara Cerdas, member of the MEP Interest Group on AMR, stressed that not enough has been done to address AMR. There is a crucial need to push the One Health approach to make the EU a best practice region and advocate for AMR to be higher on the global agenda. AMR is a major global health challenge: the innovation pipeline of antimicrobials is getting dry, and we are close to the point of no return. There is a need to establish effective barriers in human health and animal health to prevent discharges of antimicrobials in the environment.

Rhys Whomsley, Non Clinical and ERA Expert - European Medicines Agency (EMA), explained that AMR is not currently part of the environmental risk assessment (ERA) for medicine authorization. ERAs are looking at effects on the environment but not at AMR development. The problem is that AMR should be considered holistically and therefore this should include exposure from manufacturing and veterinary use. As there is no standardised methodology, progress needs to be made to develop predicted no-effect concentration values for antimicrobials in the environment. It would be of great benefit to clarify these aspects in the review of the pharmaceutical legislation.

Finally, Darija Kuruc Poje, Director of Professional Development - European Association of Hospital Pharmacists (EAHP) & Head of Hospital Pharmacy - General Hospital 'Dr. Tomislav Bardek' Koprivnica, brought the perspective from the ground, highlighting how Antimicrobial stewardship teams can help change prescription practices and promote best practice sharing. These interventions are, however, not routine in European healthcare institutions. Vaccinations and improved hygiene are additional supportive measures.

Session 2 - AMR in our waters

In the second session, Frithjof Laubinger, Environmental Economist - OECD Environment Directorate, gave a quick summary of a recently launched report. The report mentions that there are numerous sources and pathways of how antimicrobials can enter into the environment: manufacturing sites, local sources such as hospitals, and pharmaceutical household waste, i.e. the medicines that remain unused in households and need to be disposed of. Improper disposal methods include: flushed down the toilet/dumped in the sink or with solid household waste. This is a serious problem and no insignificant amount: up to 50% of drugs bought can become waste. The OECD report proposes three measures on better management and control of pharma household waste: 1. Waste prevention - e.g. more precise prescription, smaller packaging; 2. Proper collection and treatment - separate collection; 3. Awateness raising regarding proper collection and existing schemes.

MEP Jessica Polfjärd, Member of the MEP Interest Group on AMR, noted that this is a timely discussion – improving environmental public health is and should continue to be a priority at the EU level. Antimicrobials in the environment represent one of the greatest challenges, and this is not an issue with only one solution. Instead, a holistic view is essential, given the interlinkage between human and animal consumption - and environmental AMR. Prevention is a key component; there is a need for a proper EU framework, while it is also important to recognise good national examples. In Sweden, there are stricter regulations on use in both humans and animals than in most member states. Research and development for antimicrobials is also important; policy-making should be evidence based.

Anders Finnson, Environmental Advisor, Swedish Water & Wastewater Association, focused his intervention around three main points. Firstly, prudent use of antimicrobials – stating his support for the guidelines on prudent use by the Commission; secondly, wastewater treatment, which needs to become a global reality, achieved all over the world; and thirdly, advanced treatment should be – at least partially – funded by extended producer responsibility.

Teresa Lettieri, Expert on AMR in the Environment - Joint Research Centre, stated that the Green Deal is one of the political priorities for the Commission, and the Zero Pollution Ambition is a key component of that. Prudent use, mitigation of emissions and monitoring should all contribute to this goal. She also mentioned the EU One Health Action Plan, which was published and included an awareness of the fact that it's not enough to only consider human and animal AMR, but the environment is an essential area.

Closing Remarks

MEP Nicolae Ștefănuță delivered the closing remarks for the event, concluding that the presence of antimicrobials in the environment is far too crucial in the development and spread of AMR to be ignored, and that we must pay close attention to this, if we are to truly tackle AMR.

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