

Invited Speaker 6

Antimicrobial resistance: our One Health challenge

Jorge Pinto Ferreira^{1,*}

¹ Food and Agriculture Organization of the United Nations (FAO), Viale delle Terme di Caracalla, Rome, Italy

* Correspondence: jorge.pintoferreira@fao.org

Abstract

Antimicrobial Resistance (AMR) is recognized as one of the current top global health issues. Often, it is simplified to the version “resistance to antibiotics”, and therefore associated by many only to human health. In reality, its dimensions and implications are much broader, as all antibiotics are antimicrobials, but not all antimicrobials are antibiotics. Antimicrobials are used not only in human medicine but also in animals (companion, exotic and food production, terrestrial and aquatic) and plants/crops, with a spill over to the environment, making it a perfect illustration of a One Health issue. In particular, after the adoption of the Global Action Plan (GAP) on AMR in 2016, a multitude of policies, events and initiatives have been implemented at global, regional, national and local levels, many of them focusing on: i. raising awareness on AMR; ii. collection of, as much as possible, harmonized and integrated data and iii. responsible and prudent antimicrobial use, when needed. AT FAO, the AMR Action Plan is the overall umbrella, that covers, for example, the development of the InFARM (International AMR Monitoring System) database and the upcoming RENOFARM (Reduce the Need for Antimicrobials on Farms for Sustainable Agrifood Systems Transformation) initiative. AMR can also be foodborne, and the same can be said the other way around: some of the foodborne infections are caused by antimicrobial resistant microorganisms. However, at the moment, the exact dimensions of these phenomena are not quantifiable at global scale. Without creating an over dimensioned alarm, it is important to emphasize that AMR is also a food safety issue, that threatens the future global food security. The cornerstones to control AMR are: 1) a (always challenging) change in behaviors, that reflects the concept that antimicrobials are global common goods, that we are all responsible for, envisioning a healthy future for the upcoming generations and communities and 2) an agrifood systems transformation that ensures a sustainable food production.

Keywords: antimicrobial resistance (AMR); antimicrobial use (AMU); food safety; One Health

Acknowledgments

This work received no external funding.



In *Scientific Letters*, works are published under a CC-BY license (Creative Commons Attribution 4.0 International License at <https://creativecommons.org/licenses/by/4.0/>), the most open license available. The users can share (copy and redistribute the material in any medium or format) and adapt (remix, transform, and build upon the material for any purpose, even commercially), as long as they give appropriate credit, provide a link to the license, and indicate if changes were made (read the full text of the license terms and conditions of use at <https://creativecommons.org/licenses/by/4.0/legalcode>).