REVIEWER 4

Thank you for reviewing our manuscript titled “Emerging Resistance of Neglected Tropical Diseases: A systematic review of the literature.” We sincerely appreciate your constructive reviews and recommendation for publication.

Comments and Suggestions for Authors

This study deals with a very important topic from a public health and health policy point of view. It covers one and a half decades, focuses on antimicrobial resistance (AMR) in neglected tropical diseases (NTDs) mostly spread in African countries and provides conclusions based on a meta-analysis of a number of carefully selected researches.

Indeed, the challenge is to create cost-effective, accurate, rapid and easy-to-use tests for NTDs that allow health professionals worldwide to administer the right antibiotics at the right time. It is a demanding job, particularly in low-income countries where the public health infrastructure is weak and the uncontrolled antibiotic consumption is prevalent.

This situation is well illustrated by the major finding of the study, namely that only 6 NTDs out of the 11 reviewed NTDs has information on AMR. Although the discussion part as well as the brief conclusion section contain epidemiologically correct statements, even highlight the vulnerability of the poorer groups, it would be worthwhile to draw attention - beyond increasing antimicrobial awareness - to the need of better addressing the problem in agriculture (the use of sub-therapeutic doses of antibiotics in animal rearing). In addition, more cooperation and investment are unavoidable in the pharmaceutical industry. The authors could make a reference to the health related Sustainable Development Goals (SDGs) by stating that AMR can compromise the achievement of the SDGs, affecting health security, poverty, economic growth and food security.

As WHO suggests, political decisions are needed to stop the unfavourable trends in the context of NTDs/AMR supported by effective surveillance in antimicrobial consumption and resistance in agriculture and veterinary sectors, the implementation of animal immunization and the promotion of improved hygiene and biosecurity.

Minor remarks:

On page 10, UHC should be interpreted as Universal Health Coverage (not as Universal Health Care).

In the concluding part, speaking about "worldwide scale-up in PC and drug donations", there is a need to clarify what PC means here (does it mean PCT?). Re drug donations: one may add "through the channels of ODA (official development assistance) and philanthropies".

Please read our responses to your comments and suggestions:

1. This situation is well illustrated by the major finding of the study, namely that only 6 NTDs out of the 11 reviewed NTDs has information on AMR. Although the discussion part as well as the brief conclusion section contain epidemiologically correct statements, even highlight the vulnerability of the poorer groups, it would be worthwhile to draw attention - beyond increasing antimicrobial awareness - to the need
of better addressing the problem in agriculture (the use of sub-therapeutic doses of antibiotics in animal rearing). In addition, more cooperation and investment are unavoidable in the pharmaceutical industry.

Response: Thank you for your suggestion. The study focuses on human subjects only, that is the reason our discussion was on the monitoring and surveillance of AMR in humans. Not with standing, we have included the challenges in addressing AMR in agriculture and animal health in the introduction as stated below:

“Importantly, AMR does not recognize geographic or human/animal species borders. Addressing the rising threat of AMR requires the “One Health” approach, which addresses human health, animal health, and the environment. Although, the WHO, the Food and Agriculture Organization and the World Organisation for Animal Health have taken collective action to minimize the emergence and spread of AMR through the “Tripartite Collaboration”, but there are still limitations with the agreement. A collective action is required in areas of surveillance, infection control, awareness, and responsible use for successful containment of AMR emergence and spread.”

2. The authors could make a reference to the health related Sustainable Development Goals (SDGs) by stating that AMR can compromise the achievement of the SDGs, affecting health security, poverty, economic growth and food security.

Response: This statement has been included in the discussion.

“Failure to tackle AMR threatens the attainment of various SDGs such as those on poverty reduction, reduced inequalities, clean water, economic growth, food security and sanitation.”

3. On page 10, UHC should be interpreted as Universal Health Coverage (not as Universal Health Care).

Response: Thank you for your observation, UHC has been changed to “Universal Health Coverage”

4. In the concluding part, speaking about "worldwide scale-up in PC and drug donations", there is a need to clarify what PC means here (does it mean PCT?). Re drug donations: one may add "through the channels of ODA (official development assistance) and philanthropies".

Response: The new statement is: “Presently, there is a worldwide scale-up in PCT and drug donations through official development assistance (ODA) and philanthropies, hence, there is an urgent need for effective and efficient data monitoring and national surveillance systems that will enable early detection of AMR and the mitigation of its global spread.”