Proposed revision of the WMA Statement on Antimicrobial Resistance

Dear Otmar,

Thank you for inviting the New Zealand Medical Association (NZMA) to provide feedback on the proposed major revision of the WMA statement on antimicrobial resistance (AMR). The NZMA, a constituent member of the WMA, is New Zealand’s largest medical organisation, with more than 5,000 members from all areas of medicine. The NZMA aims to provide leadership of the medical profession, and to promote professional unity and values, and the health of all New Zealanders. Our feedback has been informed by our Board and Councils including a specialist in public health medicine with expertise in epidemiology and a specialist in clinical microbiology with expertise in AMR.

General comments

1. The NZMA welcomes the work the WMA is doing on AMR, a growing threat to global public health that transcends national boundaries. We are strongly supportive of the proposed revised statement on AMR which we consider to be a generally excellent document. The statement covers most of the key points while avoiding unnecessary technical detail. Furthermore, we are pleased to note that the revised statement makes some insightful points that are generally not covered in many other statements on AMR—for example, the call to examine the role of trade agreements in the development and spread of AMR, and the focus on equity and affordability with respect to accessing existing and new antimicrobials.

2. Notwithstanding our support for the revised statement, we believe that it would benefit from additional or expanded content in some areas—for example, giving greater emphasis to the importance of prevention by focussing on the upstream social and environmental determinants of infectious diseases. We have also identified a few minor errors in the revised statement and some
instances where clarification or amendments are required. We elaborate on our feedback and provide recommendations for additional content in the paragraphs below.

Specific comments

Preamble

3. We suggest the addition of a separate bullet point early in the statement about the role of inadequate sanitation and access to clean drinking water in the global spread of AMR. A recent ecological study in the Lancet concluded: "Reduction of antibiotic consumption will not be sufficient to control antimicrobial resistance because contagion—the spread of resistant strains and resistance genes—seems to be the dominant contributing factor. Improving sanitation, increasing access to clean water, and ensuring good governance, as well as increasing public health-care expenditure and better regulating the private health sector are all necessary to reduce global antimicrobial resistance".¹

4. While there is no doubt that “the ramifications of resistance manifest themselves not just in the impact on human health, but also in potentially heavy economic costs”, the projection in point 7 attributed to the World Health Organization (WHO) that continued rise in resistance would lead to 10 million people dying per year by 2050 and a reduction of 2–3.5% in global GDP, is unreliable and may over time be seen as invalid. To the best of our knowledge, the WHO has not actually used this projection which appears to be drawn from estimates in the O’Neill Review on Antimicrobial Resistance.² The modelling that is used to derive these projections lacks credibility; the O’Neill review is written largely from a high-income country perspective and is overly simplistic. Accordingly, we recommend that this projection be removed from the statement.

5. In recommending the removal of this projection, we do not intend to detract from recognising that AMR is a clear and present danger that must be addressed vigorously, comprehensively and urgently, but it is important to ensure greater reliability with the underlying future burden assumption. More credible modelling that used more of a global health equity lens concluded that “No access and delays in access to antibiotics kill more people than antibiotic resistance”.³ It is important to keep this perspective central to any discussion. Other frequently cited claims overstate the future impact of AMR, suggesting, for example, that it is on an equal footing to climate change. Doing so is effectively misleading and risks undermining the credibility of advocacy on both issues.

6. We recommend the addition of a separate bullet point at the beginning of the preamble on the importance of preventing infections in the first place, with a particular focus on addressing the upstream determinants of infectious diseases (as drivers of AMR) in both community and healthcare settings. For example, in community settings these determinants may include, but are not limited to: crowded living conditions, poor sanitation, poor nutrition, drivers of chronic lung disease, smoking and diabetes. In healthcare settings, these determinants may include, but are not limited to: device-related infections, wound infections post-surgery, and healthcare-associated pneumonias.

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7. We suggest that point 7 (“Tackling resistance requires better use of antimicrobial drugs while preventing and controlling the transmission of resistance already present”) be split into two separate points, one focussed on better use of antimicrobial drugs and one focussed on controlling transmission of resistance already present. Controlling transmission is extremely important and often overlooked. While antimicrobials act as an accelerant by creating an ecological environment favourable for transmission, acquisition can and does occur in people who haven’t had any recent exposure to antibiotics. For example, in New Zealand, carbapenemase-producing *Enterobacteriaceae* is the big AMR threat that requires an overarching coordinated response at the national level to reduce the risk of transmission in healthcare settings.

8. Beyond the overuse and misuse of antimicrobials in animal farming and veterinary practice, the use of chemicals in horticultural and other environmental practices can also have a role in the development of AMR. We suggest that this point be added to the preamble, perhaps by the expansion of point 4.

**Recommendations - Global**

9. We believe that it is necessary to add an additional bullet point that is focused on the primary prevention of both community- and healthcare-associated infections. This additional bullet should emphasise the co-benefits of addressing the social determinants of infectious diseases that in turn drive AMR. In the community, these include drivers such as poor living conditions, household crowding, poor nutrition, poor sanitation and drinking water, and diabetes. In healthcare settings, it is important to prevent device-related infections, ensure a clean environment, good hand hygiene, and appropriate surgical preparation and technique, amongst other measures. While the point about greater use of vaccinations to reduce the burden of infectious diseases is welcome, it is not enough to just focus on increasing vaccination rates.

10. We welcome specific inclusion of the role of trade agreements on the development of AMR in the second bullet point under point 14, but the sentence about using Trade-Related Aspects of Intellectual Property Rights (TRIPS) flexibilities needs rewording. While TRIPS flexibilities are relevant to ensuring access to quality medicines, they are not really relevant as “safeguards against the globalization of drug-resistant pathogens in our food supply through international trade”. We suggest that this sentence be reworded to clarify that other provisions in trade agreements may be helpful to address the issue of AMR in the global food chain (eg, sanitary and phytosanitary regulations relating to food safety).

11. We suggest that it would be useful to add a recommendation about optimising existing antimicrobials, beyond simply hoping to develop new antimicrobials and vaccines. This could include, for example, repurposing doses and combinations.

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4 Kurenbach B, et al. Sublethal exposure to commercial formulations of the herbicides dicamba, 2,4-dichlorophenoxyacetic acid, and glyphosate cause changes in antibiotic susceptibility in *Escherichia coli* and *Salmonella enterica* serovar Typhimurium. *MBio*. 2015 Mar 24;6(2)


12. We suggest that a recommendation could be added for a supra-national UN-level coordinating body on AMR and an international treaty with strong implementation mechanisms that include rules, setting targets and holding nations to account.\(^7\)

13. It may be useful for the statement to note that the type of health system can impact on AMR. For example, while universal health care may go some way to reducing AMR, fee-for-service models may undermine efforts to minimise overuse of antimicrobials. This is because patients that pay for health services often expect to receive treatment and may feel short-changed if they are not given something such as a prescription for an antibiotic. A study from Ireland showed that a GP’s decision to provide a prescription for antibiotics may be influenced by whether or not the patient pays for their consultation at the GP interface.\(^8\)

14. In paragraph 13, we suggest the ‘s’ in the word organisation be changed to a ‘z’ to reflect the official name and spelling of the World Health Organization. Also in paragraph 13, there is a word or phrase missing between “World Organization for Animal Health” and “that support the global action plan which provides the framework for national action plans”. We wonder whether the missing words are “for policies” or “for directives” or something else?

**Recommendations - National**

15. We recommend that the bullet point about ensuring access to point-of-care diagnostics should have a qualifier inserted to ensure that such diagnostics are appropriate and fit-for-purpose. Point-of-care testing per se may not always be helpful and some caution is needed given the potential for aggressive marketing of marginally beneficial, non-cost effective, or even counter-productive diagnostic products / biomarkers. Possible rewording could be: “urge their governments to ensure access to appropriate and fit-for-purpose diagnostics in hospitals and clinics to support decision making and improve antibiotic use”.

16. With respect to the penultimate bullet point in this section, it would be useful to explicitly single out and mention “food producing animals” because these have such enormous potential to disseminate resistance (over and above companion animals).

17. In the bullet point about collecting data on antibiotic use, we believe that it is important to add that monitoring of antimicrobial use in food producing animals needs to be sufficiently granular to ensure accountability (for example, divided according to antibiotic class and type of livestock).

18. We suggest an additional bullet point in this section highlighting the value of coordinated surveillance and response systems at the national level to reduce the spread of key transmissible AMR threats in healthcare settings.

**Recommendations – Local**

19. We suggest that the first bullet point in this section could be expanded to mention the importance of clinical networks and multidisciplinary clinical governance approaches to AMR

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within hospitals and primary care practices. We draw attention to recommendations for clinical governance approaches to AMR in New Zealand.  

20. We believe the final bullet point needs to be expanded to give greater emphasis to infection prevention practices. Infection prevention in healthcare settings is an extremely important component of the response to AMR. Suggested rewording could be: “Doctors should work together with other health professionals to ensure optimal infection prevention practices in healthcare settings including hand hygiene, transmission-based precautions and environmental cleaning”.  

21. We suggest that the term ‘compliance’ used in the second and in the final bullet point in this section be changed to ‘adherence’ to avoid paternalistic connotations towards patients on the part of doctors.  

Other comments  

22. Our preference is for use of the term ‘doctor’ instead of ‘physician’ in all WMA position statements. In many countries, the term physician refers specifically to those doctors with training in internal medicine (and subspecialties) and excludes other types of doctors such as surgeons. We would also like key WMA statements such as this one to be referenced. Identifying the references that are used to support key claims in the preamble and recommendations would enhance the value of this statement by clearly demonstrating that it is evidence-informed.  

We hope that our feedback is helpful and look forward to seeing the final statement.  

Yours sincerely  

Dr Kate Baddock  
NZMA Chair

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