

## WMA STATEMENT ON ANTIMICROBIAL RESISTANCE

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### PREAMBLE

AMR is a growing threat to global public health that transcends national boundaries and socioeconomic divisions. AMR affects human, animal and environmental health. It is a multi-faceted problem of crisis proportions with significant economic, health, and human implications.

Addressing the threat of antimicrobial resistance is a fundamental global health priority, and the responsibility of all countries.

Antimicrobial drugs form an essential component of modern medicine, ensuring that complex procedures, such as surgery and chemotherapy, can be performed with lower risk.

AMR threatens the effective prevention and treatment of an increasing range of infections caused by bacteria, parasites, viruses and fungi.

AMR occurs when microorganisms develop the ability to resist the actions of antimicrobial drugs (such as antibiotics, antifungals, antivirals, antimalarials, and anthelmintics).

Infections caused by bacteria that are resistant to multiple classes of antibiotic are increasingly being documented.

While AMR is a natural evolutionary phenomenon, it is exacerbated by the overuse and misuse of antimicrobials in medicine, as well as in veterinary practice and agriculture, and can be exacerbated when antimicrobials are given as growth promoters in animals or used to prevent diseases in healthy animals.

The emergence and spread of AMR is further enhanced by lack of access to effective drugs, access to antibiotics “over the counter” in some countries, the availability of substandard and falsified products, misuse of antibiotics in food production, increased global travel, medical tourism and trade, and the poor application of infection control measures.

Another major cause of AMR is the release of antibiotics into the environment. This can occur as either as a result of poor manufacturing practices, the improper disposal of unused medication, human and animal excretion, and the inadequate disposal of human and animal corpses.

In many countries, particularly in low-and middle-income countries, access to effective antimicrobials as well as complementary technologies including vaccines and diagnostics continues to remain a significant challenge, furthering AMR.

The ramifications of resistance manifest themselves not just in the impact on human health, but also in potentially heavy economic costs. The World Health Organization (WHO) has warned that resistance has reached alarming levels in many parts of the world, and that a continued increase in resistance could lead to 10 million people dying per year and a reduction of 2-3.5% in global gross domestic product by 2050.

At the rate at which resistance is growing globally, it poses a significant threat to successfully achieving the UN Sustainable Development Goals and undermines efforts to reduce health inequalities. Without harmonized and coordinated cross-sector action on a global, scale, the world is heading towards a post-antibiotic era in which common infections and minor injuries can once again kill.

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AMR has reached great prominence at the highest political levels including the UN General Assembly, and the agenda of the G7 and G20.

There is a need for an effective 'one health' approach to minimize unnecessary or inappropriate use of antimicrobials and to prevent and control the transmission of existing resistance. A 'one health' approach recognizes that action is required across human medicine, veterinary practice and agriculture.

## RECOMMENDATIONS

### Global

1. The primary prevention of community and healthcare associated infections is necessary to reduce the demand for antibiotics. Addressing the social determinants of infectious disease, such as poor living conditions and sanitation, will have co-benefits of reducing health inequalities and tackling AMR.
2. Nations have varying resources available to combat antimicrobial resistance, and must cooperate with the WHO, Food and Agriculture Organization and World Organization for Animal Health that support the WHO Global Action Plan on AMR which provides the framework for national action plans.
3. The World Medical Association and its constituent members should advocate for:
  - investment in the surveillance of drug resistant infections across human health, veterinary medicine, agriculture, fishing industry, and food production, and international cooperation for data-sharing procedures to improve global responses;
  - the WHO and other UN agencies should examine the role of international travel and trade agreements on the development of antimicrobial resistance, and promote measures in those agreements to act as safeguards against the globalisation of drug resistant pathogens in our food supply;
  - the WHO should continue to encourage the use of Trade Related Aspects of Intellectual Property Rights (TRIPS) flexibilities to help ensure affordable access to quality medicines and oppose the proliferation of 'TRIPS-plus' provisions within trade agreements, which restrict the use of TRIPS flexibilities and limit their effectiveness;
  - the widespread application of verifiable technology such as track-and-trace systems to ensure the authenticity of pharmaceutical products;
  - equitable access to, and appropriate use of, existing and new quality-assured antimicrobial medicines. This requires effectively applying the Access, Watch and Reserve lists of the WHO Essential Medicines program. For the WHO global action plan and national action plans to be effective, access to health facilities, health care professionals, veterinarians, knowledge, education and information are vital;
  - greater use of vaccinations which will reduce the burden of infectious disease, reducing the need for antibiotics and therefore limiting the emergence of resistance;
  - for global health organisations and governments to scale up their action and coordination in promoting appropriate antibiotic use and work together to reduce AMR using a One Health approach, which recognises that human, animal and environmental health is inextricably linked. to reduce the spread of resistance.
4. The World Medical Association and its constituent members should encourage their governments to:
  - fund more basic and applied research directed toward the development of innovative antimicrobial agents, diagnostic tools and vaccines (innovative antimicrobial vaccines), and on the appropriate and safe

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use of such therapeutic tools;

- ensure parity between financial and technical resources towards the development of innovative antimicrobial medicines, vaccines, and diagnostics as well as innovative infection control and prevention methods across human health, veterinary, and agricultural sectors;
- support Research and Development efforts for novel antimicrobial agents, vaccines, and rapid diagnostic methods that are needs-driven and guided by the principles outlined in the UN Declaration on AMR, adopted in September 2016, including affordability, effectiveness, efficiency, and equity;
- initiate regulatory measures to control the environmental pollution that allows the spread of antibiotic-resistant genes across soil, water and air;
- educate a sufficient number of clinical infectious disease specialists in every country, which is a fundamental requirement for tackling antimicrobial resistance and hospital-acquired infections.

### National

1. National medical associations should urge their governments to:

- require that antimicrobial agents be available only through a prescription provided by healthcare professionals and/or veterinary professionals and dispensed or sold by professionals;
- initiate national campaigns to raise awareness among the public of the harmful consequences of overuse and misuse of antibiotics. This should be supported through the introduction of national targets to raise public awareness;
- support professional societies, civil society, and healthcare delivery systems to pilot and adopt proven behaviour change strategies to ensure appropriate use of antibiotics;
- ensure access to appropriate and fit-for-purpose point-of-care diagnostics in hospitals and clinics to support decision making and prevent inappropriate prescribing of antibiotic;
- mandate the collection of data on antibiotic use, prescriptions, prices, resistance patterns, and trade in both the healthcare and agricultural sectors. This data should be made publicly accessible;
- promote effective programs of antimicrobial stewardship and training on the appropriate use of antimicrobials agents, and infection control;
- actively pursue the development of a national surveillance system for the provision of antimicrobials and for antimicrobial resistance. Data from this system should be linked with or contributed to the WHO's global surveillance network;
- monitoring of antimicrobial use in food producing animals must be sufficiently granular to ensure accountability.

2. National medical associations should:

- encourage medical schools and continuing medical education programs to renew their efforts to educate physicians, who can in turn inform their patients, about the appropriate use of antimicrobial agents and appropriate infection control practices, including antibiotic use in the outpatient setting;
- support the education of their members in areas of AMR, including antimicrobial stewardship, rational use of antimicrobials, and infection control measures including hand hygiene;

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- advocate for the publishing and communication of local information relating to resistance patterns, clinical guidelines and recommended treatment options for physicians;
- in collaboration with veterinary authorities, encourage their governments to introduce regulations to reduce the use of antimicrobials in agriculture, in particular food producing animals, including restrictions on the routine use of antimicrobials for both prophylaxis and growth promotion, and on the use of classes of antimicrobial that are critically important in human medicine;
- support regulation that prevents conflicts of interest among veterinarians, such as roles where veterinarians both prescribe and sell antibiotics;
- consider the use of social media to educate and promote the proper use and disposal of antibiotic medications;
- encourage parents to comply with the national recommended immunization schedules for children. Adults should also have easy access to vaccines against influenza and pneumococcal infections among others.

### Local

1. Health professionals and health systems have a vital role in preserving antimicrobial medicines.
2. Physicians should:
  - have access to high-quality and reliable, evidence-based information free of conflict of interest and actively participate in and lead antimicrobial stewardship programs in their hospitals, clinics and communities to optimise antibiotic use;
  - raise awareness amongst their patients about antimicrobial therapy, its risks and benefits, the importance of adherence with the prescribed regimen, infection prevention practices, and the problem of AMR;
  - promote and ensure adherence hygiene measures (especially hand hygiene) and other infection prevention practices.