

WMA STATEMENT ON RESISTANCE TO ANTIMICROBIAL DRUGS

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PREAMBLE

The global increase in resistance to antimicrobial drugs, including the emergence of bacterial strains resistant to all available antibacterial agents, has created a multi-faceted public health problem of crisis proportions with significant economic and human implications. The development of resistant microorganisms is a problem whenever antimicrobial agents are used. The increase in high-risk populations who frequently require antimicrobial therapy, including immunocompromised patients, those undergoing invasive medical interventions, those with implanted medical devices and patients with chronic debilitating diseases, has amplified the problem. The fact that certain infectious diseases have been linked to the development of chronic disease and cancer adds another dimension to the problem.

A renewed effort to increase awareness of antimicrobial resistance is needed in order to contain and slow its development. International cooperation is essential in accomplishing this objective, including global, national, and local components. In particular, implementation of national and global efforts to contain the development and spread of antimicrobial resistance is vital; policy statements without international will to accomplish results are not enough. Given the dynamics of antimicrobial resistance, the need for continuing development of new antimicrobials by the pharmaceutical industry can be anticipated.

Substantial misuse and overuse of antimicrobial agents have exacerbated the problem by adding selection pressures to microbial populations that favor mutation to antibiotic resistance. These include inappropriate prescribing of antibacterial prophylactics and/or treatment of bacterial infections by physicians and poor compliance with antimicrobial regimens by patients. Thus, there is a need for enhanced training and education to improve the appropriate clinical use of antimicrobials and prevent the development of resistance. There is a need at every level to educate the public about the appropriate use of antimicrobials and the problem of antimicrobial resistance.

The availability of antimicrobial agents without a prescription in many developing countries is escalating antibiotic resistance, and this practice must be discontinued. The increasing prevalence of counterfeit medications is another critical and expanding risk factor. Successfully addressing this problem will require substantial cooperation among nations and the development and use of better technologies to verify the authenticity of pharmaceutical products and assure the security of deployment from point of manufacture to the point of need. Similarly, the inappropriate use of antibiotics in veterinary medicine and livestock production in many countries needs to be controlled.

RECOMMENDATIONS

Global

Individual governments should work to create cross-sectional national task forces to collect national data on the use of antibiotics and antimicrobial resistance and to prioritize regulation, intervention, and other measures to reduce antimicrobial resistance.

The World Medical Association and its member national medical associations should advocate for:

- Individual governments to cooperate with the World Health Organization (WHO) to enhance the effectiveness of the WHO's global network of antimicrobial resistance surveillance. This will foster the collection, quality and sharing of data; the monitoring of progress in combating antimicrobial resistance; the establishment of appropriate formularies; and scientific support for interventions.
- The WHO to examine the role of international travel and trade agreements on the development of antimicrobial resistance.
- The widespread application of verifiable technology to ensure the authenticity of pharmaceutical products.

The World Medical Association and its national medical associations should encourage their governments to:

- Fund more basic and applied research directed toward the development of innovative antimicrobial agents and vaccines, and on the appropriate and safe use of such therapeutic tools.
- Create incentives for the pharmaceutical industry to pursue research and development programs leading to the availability of innovative antimicrobial agents, vaccines, and rapid diagnostic methods.

National

National medical associations should:

- urge their governments to require that antimicrobial agents be available only through a prescription provided by licensed and qualified health care and/or veterinary professionals.
- urge their governments to initiate a national media campaign explaining to the public the harmful consequences of overuse and misuse of antibiotics.
- actively pursue the development of a national surveillance system for antimicrobial resistance that will provide physicians with the information necessary to deliver timely, evidence-based, high-quality care. Data from this system should be linked with, or at minimum, fed into, the WHO's global network of antimicrobial resistance surveillance.
- create guidelines on the appropriate use of antibiotics for common medical conditions, such as respiratory infections, tonsillitis, pneumonia and urinary tract infection; pursue the development of a national surveillance system for sales of antimicrobials.

- encourage medical schools and continuing medical education programs to renew their efforts to educate physicians about the appropriate use of antimicrobial agents and appropriate infection control practices, including antibiotic use in the out-patient setting.
- in collaboration with veterinary authorities, encourage their governments to restrict the use of antimicrobial agents as feed additives for animals strictly to those antimicrobials that do not have a human public health impact.

Local

Physicians should:

- assume leadership roles in their local hospitals, clinics, and communities regarding appropriate antiseptic habits, antimicrobial agent usage, and antimicrobial resistance prevention and control programs. This applies especially to those trained in infectious diseases and clinical microbiology.
- raise awareness amongst their patients about antimicrobial therapy, its risks and benefits, the importance of compliance with the prescribed regimen, optimal hygienic practices, and the problem of antimicrobial drug resistance.
- wherever possible, explore strategies for reducing the use of antibiotics that do not compromise the quality of patient care, such as "wait-and-see" prescriptions for the treatment of acute otitis media.