



# INTERNATIONAL COUNCIL OF NURSES POSITION STATEMENT

## **Antimicrobial resistance**

Antimicrobial resistance (AMR) endangers human health and the future of healthcare delivery and is considered one of the biggest threats to global health and human development.

In all areas of the world, bacteria, parasites, viruses and fungi are becoming increasingly resistant to antimicrobial drugs. As a result, antimicrobials become ineffective in killing these pathogens and infections persist in the body.

The International Council of Nurses (ICN) is very concerned with the increasing global levels of AMR and recognises the urgent need for multisectoral collaborative actions to halt the rise and prevent further development of AMR.

AMR naturally occurs over time but is accelerated as a result of several factors but mainly the misuse and overuse of antimicrobials in humans and animals. The spread of resistant pathogens is facilitated by population growth, changes in susceptible populations, urbanization with overcrowding, environmental changes, wars and societal disruption, poor infection control, hygiene and sanitation, changes in the food industry and increased global trade and travel (1). New resistance mechanisms are emerging and at an alarming rate in pathogens that cause common healthcare-associated and community-acquired infections ( i.e. *E. coli*, *K. pneumoniae*, *Staphylococcus aureus*) and in serious infections such as tuberculosis, malaria, and HIV.

Resistance in all classes of antimicrobials will lead to few options available to treat both common and serious infections and “last-resort” antimicrobials are often more toxic, more expensive, and less effective. The consequences of AMR include prolonged illness, the need for longer and more intensive care, increased morbidity, preventable deaths, spread of resistant microorganisms, and high healthcare costs (2). Medical procedures such as chemotherapy and surgery will become very high risk without effective antimicrobial medicines.

# INTERNATIONAL COUNCIL OF NURSES POSITION STATEMENT

Nurses and other healthcare workers have a vital role to play in preserving the power of antimicrobial medicines. Nurses are in a key position to contribute to reducing AMR as they have the most consistent presence as patient carer and are involved in all aspects of care. Nurses assess, diagnose infections; administer and prescribe antimicrobials and report side effects; monitor treatment outcomes; provide vaccination; and educate patients, their families, and communities.

## **ICN Position and Recommendations:**

ICN, along with its member national nurses associations, calls for coordinated and sustained efforts in reducing global AMR and promotes the collaboration of nurses, consumers, physicians, pharmacists, and veterinarians as well as the environmental and agricultural sectors. More specifically, ICN calls on,

Professional and regulatory nursing organisations to:

- Collaborate with nursing education providers to include AMR education, including the contribution that nurses can make to antimicrobial stewardship, in core curricula at basic and continuing education levels.
- Include infection prevention and control (IPC) knowledge in nursing practice standards and in pre- and post-registration education.
- Support nurses working in IPC through promoting credentialing of this area of expertise, ensuring national standards of practice and by supporting professional development in this area.
- Ensure nurses and nursing organisations are part of the development and implementation of national action plans for preventing AMR.
- Advocate for improved access and dispensing of essential antimicrobials and vaccines for populations with poor or inadequate supply.
- Lobby to eliminate the non-prudent use of antimicrobial agents in food-animal production, plant agriculture, and industrial settings and to develop

# INTERNATIONAL COUNCIL OF NURSES POSITION STATEMENT

national guidelines on use in these areas according to internationally recognized standards (3).

- Lobby governments to develop and strengthen national AMR surveillance systems to monitor the extent and cause of resistance in order to support evidence-based decision making and inform the developments of new drugs and diagnostics. Ensure nurses play a central role in surveillance, monitoring and audit activities.
- Lobby governments for regulation to ensure that only quality assured, safe, efficacious, and affordable antimicrobial agents are licensed, distributed, and sold.

In addition to playing a part in and supporting the above actions, ICN also calls on individual nurses to:

- Increase patient and public awareness and understanding of AMR and the implications it has on human health and development.
- Educate patients and their families about the determinants of AMR and measures to prevent it such as adherence to treatment, the correct use of antibiotics, and infection prevention.
- Work with the multidisciplinary team to ensure the appropriate use of antibiotics including selection, dose, duration, administration and therapeutic effects.
- Support and participate in the development of evidence-based AMR stewardship programmes in healthcare facilities to support optimal antimicrobial use; programmes should include interventions to support appropriate selection, administration, and monitoring of antimicrobial drugs (4).
- In healthcare settings, support and strengthen hygiene, sanitation, and IPC policies and practices to prevent and control healthcare-associated infections; educate patients and families about how to prevent infections in their homes and communities.

# INTERNATIONAL COUNCIL OF NURSES POSITION STATEMENT

- Improve vaccination rates as a mean to reduce the risk of AMR – provide patients and families with evidence-based, accurate and non-judgmental information on the benefits and importance of immunization for health outcomes.
- When prescribing antimicrobials, follow national prescribing guidelines on the most appropriate drug, the shortest effective dose, and the most appropriate route of administration.

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## References

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3. Joint FAO/WHO Food Standards Programme: Codex Alimentarius Commission: Matters arising from FAO and WHO recent activities on antimicrobial resistance [Internet]: Food and Agriculture Organisation, World Health Organisation; 2015 [Available from: [ftp://ftp.fao.org/codex/meetings/cac/cac38/cac38\\_16\\_add1e.pdf](ftp://ftp.fao.org/codex/meetings/cac/cac38/cac38_16_add1e.pdf)]
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