



SPECIAL ARTICLE

World alliance against antibiotic resistance: The WAAAR declaration against antibiotic resistance



Jean Carlet, on behalf of the members of the WAAAR¹

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Abstract We must change how antibiotics are used and adopt proactive strategies, similar to those used to save endangered species. Preservation of the efficacy of antibiotics and to stabilization of antibiotic-susceptible bacterial ecosystems should be global goals.
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PALABRAS CLAVE

Resistencia
antibiótica;
WAAAR

Alianza Mundial contra la resistencia antibiótica. Declaración contra la resistencia antibiótica

Resumen Debemos cambiar la forma como se utilizan los antibióticos, adoptando estrategias proactivas, de igual manera que se protegen las especies en peligro de extinción. Preservar la eficacia de los antibióticos y mantener la susceptibilidad de los ecosistemas bacterianos deben ser objetivos globales.
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We must change how antibiotics are used and adopt proactive strategies, similar to those used to save endangered species. Preservation of the efficacy of antibiotics and to stabilization of antibiotic-susceptible bacterial ecosystems should be global goals.

We urge all of you to participate in this crusade, in your own field of interest. The medical miracle of antibiotic therapy must be protected – this is a global priority and our duty. Please, help us to act NOW, by supporting this declaration, to promote wiser use of antibiotics in animal and human

health, and the necessary accompanying political actions to support better education, integrated surveillance for public health action, and research.

The increase in antibiotic resistant bacteria poses a major healthcare threat. In the face of an almost complete absence of new antimicrobial drugs in development, antibiotic resistance (ABR) has become one of the main public health problems of our time. Antibiotics are a unique class of medications because of their potential societal impact; use of an antibiotic in a single patient can select for ABR that can spread to other people, animals, and the environment, making an antibacterial used in one patient ineffective for many others. Bacterial resistance can evolve rapidly. As bacteria acquire resistance mechanisms, the altered bacterial

E-mail address: jeancarlet@gmail.com

¹ See Appendix.

genetic material coding for resistance mechanisms can be transmitted at times readily between bacteria, broadening the reach and extent of resistance. Treatment failures because of multidrug resistant (MDR) bacteria, once rare, notable, and limited to hospitals, now occur very commonly in hospitals and increasingly in the community as well. It is estimated that a minimum of 25,000 patients in Europe and 23,000 in the USA die each year from infections caused by resistant bacteria. The cost of antibiotic resistance is tremendous, whether measured as the personal and societal burden of illness, death rates, or healthcare costs.

Although it is a never-ending phenomenon, antibiotic resistance is directly related to the volume of antibiotics used. We are using increasing amounts of antibiotics in health care and agriculture, and discharging these active drugs into the environment. The impact of widespread antibiotic use is enormous, promoting the development and dissemination of antimicrobial resistance.

Safeguarding antibiotics will require a concerted effort by citizens, patients and prescribers. The primary goal of WAAAR is to raise awareness about the urgency and magnitude of the threat and to promote an international dialogue to assist in effective responses. The Alliance, in particular through this declaration, is dedicated to actively promoting antibiotic preservation and to raising awareness among antibiotic prescribers, politicians and policy-makers, patient safety and advocacy groups, the pharmaceutical industry, international health organizations, and the general population. Individual actions, no matter how well intended, are doomed to failure unless there is an international dialogue, a common sense of purpose, and broad consensus on how best to proceed.

WAAAR advocates for the following 10 actions

1. **Promotion of awareness of all the stakeholders – including the general public – of the threat represented by antibiotic resistance**
 - Strong cooperation among international political, economic and public health organizations, which, all together, must take the lead of this action against antibiotic resistance.
2. **Organization, in each country, ideally by Ministries of Health or regulatory bodies, of a financed national plan for the containment of antibiotic resistance, with the participation of all stakeholders, including patient advocacy groups**
3. **Continuous access to antibiotics of assured quality, especially in middle and low income countries**
4. **WAAAR advocates for the following 10 actions Integrated Surveillance of antibiotic resistance (ABR) and antibiotic use**
 - Standardized monitoring of antibiotic use and resistance at institution, regional, and country (comprehensive national data instead) level (through a Centres for Diseases Control and Prevention model) to allow comparative statistics (benchmarking), to be updated preferably in real-time and at least every 12 months. This will require adequate laboratory capacity using international standardized methods that

may be facilitated by a centralized technologic coordinating infrastructure and information technology

5. Use of diagnostic tests

- Appropriate use of existing diagnostic tests and development and implementation of new rapid, cost-effective and accurate diagnostic tests, adapted to the local context, to aid in distinguishing bacterial and nonbacterial etiologies. Rapid diagnostics may help clinicians avoid unnecessary treatments, rapidly select appropriate targeted therapies and inform the duration of treatment

6. Antibiotic stewardship (prudent, controlled and monitored approaches to the use of antibiotics)

- In humans (hospitals, long term care facilities and primary care).
- In animals (animal husbandry, agriculture, aquaculture and animal health/veterinary setting), in a ‘‘one health’’ philosophy.
- Progressive elimination of the ‘‘over the counter’’ (i.e. available without a prescription) access to antibiotics (systemic and topicals) for humans or animals.
- Ban of the use of antibiotics as growth promotion in food animals, and exceptional use in prophylaxis.
- Rational use of metaphylaxis (Prophylaxis when some animals in the livestock are sick, or at high risk to be sick), and of animal treatment.
- Limitation of the use of critically important antibiotics in humans and animals (e.g., carbapenems).

7. Educational efforts for change

- Educational programmes directed at children/teenagers on antibiotics, bacterial resistance, and infection control (e-Bug model).
- Development of large coordinated, effective information and awareness campaigns directed at the public on expectations about the rational/appropriate use of antibiotics.
- Continuous education and training programmes in the curriculum for all health care professionals in all settings (veterinarians, medical, dental, nursing, pharmacy and allied health care schools) and continuing professional education programmes, on the rational use of antibiotics, including indications, dosing and duration of therapy. Education of farmers.

8. Containment of bacterial transmission and prevention of infection

- Promotion of universal hand hygiene and all infection control interventions that have been proven to reduce rates of resistance.
- Relentless efforts to prevent transmission of MDR organisms in healthcare, food production and animal husbandry.
- Programmes to limit the contamination of drinking water with MDR bacteria, as well as contamination of the environment.
- Promotion of the use of available vaccines, in humans and animals.

9. Basic and applied research, and development of new antibiotics

- Increased support for basic and applied research aiming at curbing bacterial resistance in human and veterinary medicine.

- Use of the principles of orphan drugs for new antibiotics.
- Incentives to stimulate research of new drugs (antibiotics and novel compounds) and vaccines via regulatory pathways that allow for fast track development.
- New economic business models to support the cost of innovation while safeguarding public health interests.

10. Request for UNESCO to include the “concept of antibiotic” in the list of the intangible cultural heritage.

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Appendix.

WAAAR is a group of 700 individuals from 55 different countries representing all the key stakeholders (physicians, veterinarians, microbiologists, surgeons, pharmacists, nurses, evolutionary biologists, ecologists, environmentalists, patient advocacy groups). The Alliance receives support from more than 140 learned societies or professional groups throughout the world. WAAAR is a nonprofit organization open to professionals and consumers worldwide. WAAAR receives no funding from the pharmaceutical industry.

Supporting individuals

Laurent Aaron (France), Mohamed Salah Abassi (Tunisia), Lilian Abbo (USA), Oladipo Aboderin (Nigeria), Edward Abraham (USA), Fekri Abroug (Tunisia), Jacques Acar (France), Wafa Achour (Tunisia), Javier Adachi (USA), Seif Al-Abri (Oman), Haifaa Al-Mousa (Kuwait), Antonio Albaya-Moreno (Spain), Corinne Alberti (France), Serge Alfandari (France), Amani Alnimr (Saudi Arabia), Celia Alpuche Aranda (Mexico), Francisco Alvarez de Lerma (Spain), Fatma Amer (Egypt), Antoine Andremont (France), François Angoulvant (France), Maryvonne Anguill (France), Massimo Antonelli (Italy), Eleni Antoniadou (Greece), Guillaume Arlet (France), Apostolos Armaganidis (Greece), Anne Arnera (France), Antonio Artigas (Spain), Claude Attali (France), Frédéric Auber (France), Jean-Pierre Aubert (France), Bernard Augereau (France), Martine Aupée (France), Olfa Bahri (Tunisia), Françoise Ballereau (France), Gérard Bapt (France), Fernando Baquero (Spain), Timothy Barkhan (Singapore), Ouahid Barouti (Morocco), Marie-Anne Barthelemy (France), Greg Barton (UK), Davide Bastoni (Italy), Michel Baussier (France), Luis Bavestrello (Chile), Birgit Begeer (Belgium), Samuel Benenson (Israel), Fethi Bensalem (France), Guillaume Béraud (France), Frederique Bergheau (France), Gordon Bernard (USA), Philippe Berthelot (France), Xavier Bertrand (France), Frédérique Beuhorry-Sassus (France), Pascal Beuret (France), John Billington (USA), Jacques Birgé (France), Sandra Biscardi (France), Luis Blanch (Spain), Hervé Blanchard (France), Thomas Bleck (USA), Joseph Blondeau (Canada), François Blot (France), France

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Antibiolor (C. Rabaud), Antimicrobial Stewardship Working Group of the International Society of Chemotherapy (ISC) (Gabriel Levy Hara), Arab Alliance for a Prudent Use of Antimicrobials (Ar-Apua) (Fatma Amer), Association de Lutte contre les Infections Associées aux Soins (ALIAS), Association des Médecins Coordonnateurs en EHPAD, Association des Victimes d'Infection Nosocomiale (ADVIN), Association Le CISS (Claude Rambaud), Association Le LIEN (Madeleine Madoré), Association Phagespoir (Jérôme Larché), Association pour la Chimiothérapie Anti-infectieuse (ACAI), Association pour la Recherche en Microbiologie Expérimentale (Marie-Laure Joly-Guillou), Austrian Antibiotic Stewardship Group (Elisabeth Heisbourg), CCLIN Ouest (Martine Aupée), Centre for Infection Control and the APIC-Saudi chapter (Hanan Balkhy), Chaire Recherche Infirmière, AP-HP EHESP (France,

Monique Rothan-Tondeur), Collège des Enseignants de Maladies Infectieuses (CMIT) (Christian Michelet), Collège National de Médecine Générale (CNMG), Collège National des Généralistes Enseignants (CNGE) (Pierre Louis Druais), Comité de Pilotage des Réseaux de Surveillance ATB et BMR Sud Est, Doctors Without Borders/Médecins Sans Frontières (Arlène Chua, Richard Murphy), Egyptian Patient Safety Association (EPSA) (Ossama Rassla), ESGAP working group (ESCMID) (Jordi Rello), Fédération des Spécialités Médicales (FSM), Fédération Française d'Infectiologie (FFI) (Christian Perrone), Fédération Française de Pneumologie (FFP) (Bruno Housset), Global Sepsis Alliance (Konrad Reinhart), Groupe de Pathologie Infectieuse en Pédiatrie (GPIP) (Robert Cohen), Grupo de Infecção e Sepsis (Joao Jaime Sa), Grupo de Trabajo de Enfermedades Infecciosas y Sepsis De la Sociedad Española de Medicina Intensiva, Hellenic Sepsis Study Group (Gogos Charalambos, Evangelos Giamarellos-Bourboulis), Infection Control Directorate (Ministry of Health-Kuwait), Infection Prevention and Control African Network (IPCAN) (Shaheen Mehtar), Institut de Recherche en Médecine Générale (IRMG), Institut Maurice Rapin (IMR) (Christian Brun-Buisson), International Forum for Acute Care Trialists (InFACT) (John Marshal), International Sepsis Forum (Tom Van Der Poll), Le Forum des

Bio-hygiénistes, Ligue Africaine des Associations pour la Sécurité des Patients (LIASEP), Medqual (F. Ballereau), National Committee for the Proper Use of Antimicrobials (Ministry of Health-Kuwait), Observatoire du Risque Infectieux en Gériatrie (ORIG) (Monique Rotha-Tondeur), Observatoire National d'Epidémiologie de la Résistance Bactérienne aux antibiotiques (ONERBA) (Marie-Hélène Nicolas-Chanoine), Portuguese Intersectorial Alliance for the Preservation of the Antibiotics (APAPA) (Jose Arthur Paiva), Programme National de Lutte contre l'Infection Nosocomiale (PRONALIN), Sénégal (Babacar N'Doye), Réseau International pour la Planification et l'Amélioration de la Qualité des Soins en Afrique (RIPAQS) (Bernard Chanfreau), Réseau Sud-Est de Surveillance et de Prévention des Bactéries Multirésistantes aux Antibiotiques, South African Antibiotic Stewardship programme (Adrian Brink), Spanish Network for Research in Infectious Diseases (REIPI) (Jesus Rodriguez-Bano), Safe Observer International (SOI) (Garance Upham), The Bekele Afessa Initiative to Improve Sepsis Care in Resource-Limited Areas (Joseph Christopher Farmer), The Canadian Antimicrobial Resistance Alliance (CARA), The Eastern Mediterranean Regional Network for Infection Control (EMRNI) (Ossama Rassla), The Gulf Cooperation council (GCC) (Hanan Balkhy).