

# The rising threat of antibiotic resistance

January 10 2013

---



Credit: AI-generated image ([disclaimer](#))

A major European and global health issue is resistance to or inappropriate use of antibiotics. The European Centre for Disease Prevention and Control (ECDC) estimates that each year, antimicrobial resistance (AMR) results in 25 000 deaths and related costs of over EUR 1.5 billion in healthcare expenses and productivity losses. Over the last four years, there has been a significant increasing trend of combined resistance to multiple antibiotics in both *Klebsiella pneumoniae* and *E.*

coli in more than one-third of the EU/EEA countries. In addition, in several Member States, between 25 % and up to more than 60 % of *Klebsiella pneumoniae* from bloodstream infections show combined resistance to multiple antibiotics.

As resistance increases, the number of effective antibiotics drops, meaning that there may be no antibiotics left to fight life-threatening diseases. The situation is all the more serious because antimicrobials have become an essential tool for [modern medicine](#). Many surgical operations could not be performed without them. Moreover, an inability to use the right antibiotics for critically ill patients, owing to [bacterial resistance](#), could seriously jeopardise these people's chances of survival. According to the ECDC, in the European Union, Norway and Iceland, for example, 400 000 [resistant infections](#) are estimated to occur every year.

However, action is being taken. The European Commission has adopted an action plan against the rising threats from AMR with 12 actions for implementation with EU member countries and seven areas where measures have been identified as necessary. These include; making sure antimicrobials are used appropriately in both humans and animals, preventing [microbial infections](#) and their spread, developing new effective antimicrobials or alternatives for treatment and improving communication, education and training.

At the global level, the [World Health Organisation](#) (WHO) has adopted a strategic action plan on AMR. It aims at strengthening surveillance of antibiotic resistance, promoting rational use of antibiotics, strengthening infection control and surveillance in health care settings, preventing emerging resistance in the veterinary and food sectors, promoting innovation and research on new drugs and improving awareness, patient safety, and partnership

Commenting on the European Commission's Action Plan, Mrs Testori Coggi, head of the Directorate-General for Health and Consumers, said: 'In order to successfully address antimicrobial resistance, we need to tackle the problem in a comprehensive approach, in which all relevant parties and stakeholders live up to their responsibility to combat this serious health threat in their respective areas. Therefore, there is no hierarchy of actions in the Action Plan, as all aspects are interrelated. Notably, the promotion of prudent [use of antibiotics](#) both in human and veterinary medicine, the development of new antimicrobial products and prevention of infections must proceed in parallel.'

The European Medicines Agency (EMA) has also contributed, including by setting-up a Committee for Medicinal Products for Human Use (CHMP), which produced a guideline on the evaluation of medicinal products indicated for treatment of bacterial infections. The guideline addresses the overarching requirement for the development of antibacterial agents that have a direct action on bacteria. The EMA has also launched a public consultation on an addendum to the guideline on the evaluation of medicinal products indicated for treatment of bacterial infections. It provides additional guidance on the requirements for clinical studies related to specific indications and on clinical development programmes for new antibacterial agents targeted at rare or multidrug-resistant pathogens. The public consultation for this guideline ends on 31 January 2013.

**More information:** [www.ecdc.europa.eu/en/Pages/home.aspx](http://www.ecdc.europa.eu/en/Pages/home.aspx)  
[www.euro.who.int/amr](http://www.euro.who.int/amr)  
[ec.europa.eu/health/antimicrob.../policy/index\\_en.htm](http://ec.europa.eu/health/antimicrob.../policy/index_en.htm)  
[www.ema.europa.eu/ema/](http://www.ema.europa.eu/ema/)

Provided by CORDIS

Citation: The rising threat of antibiotic resistance (2013, January 10) retrieved 3 July 2024 from <https://medicalxpress.com/news/2013-01-threat-antibiotic-resistance.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.