

## **Public health threat of antimicrobial resistance**

### **European Parliament resolution of 27 October 2011 on the public health threat of antimicrobial resistance**

*The European Parliament,*

- having regard to its resolution of 12 May 2011 on antibiotic resistance, focusing on animal health,
  - having regard to the European Food Safety Authority (EFSA) Scientific Opinion ‘on the public health risks of bacterial strains producing extended-spectrum  $\beta$ -lactamases and/or AmpC  $\beta$ -lactamases in food and food-producing animals’ of August 2011,
  - having regard to the Staff working paper of the services of the Commission on antimicrobial resistance of 18 November 2009 (SANCO/6876/2009r6),
  - having regard to the Joint Technical Report by the European Centre for Disease Prevention and Control (ECDC) and the European Medicines Agency (EMA) of September 2009 on ‘The bacterial challenge: time to react - A call to narrow the gap between multidrug-resistant bacteria in the EU and the development of new antibacterial agents’,
  - having regard to Council Recommendation 2002/77/EC of 15 November 2001 on the prudent use of antimicrobial agents in human medicine<sup>1</sup> and the European Parliament resolution of 23 October 2001 on the proposal for this Council Recommendation<sup>2</sup>,
  - having regard to the Commission Communication of 20 June 2001 on a Community Strategy against antimicrobial resistance (COM(2001)0333),
  - having regard to Rules 115(5) and 110(2) of its Rules of Procedure,
- A. whereas antimicrobial agents are able to destroy or prevent the growth of bacteria, viruses and other micro-organisms (antibiotics are microbial agents which only react against bacteria) and thereby have played a significant role in improving public health by helping to reduce the number of deaths from diseases and infections which were previously incurable or fatal;
- B. whereas their use has resulted in certain micro-organisms previously sensitive to these antimicrobial agents developing so-called ‘antimicrobial resistance’;
- C. whereas this natural process is accelerated by the excessive and uncontrolled use of these antimicrobial agents, thereby jeopardizing the medical successes achieved;
- D. whereas the launch of every new antibiotic has been, and will be, followed by resistance in the targeted bacteria; whereas the maintenance of an effective capacity to combat infectious disease requires both the development of new antimicrobial agents and improved

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<sup>1</sup> OJ L 34, 5.2.2002, p. 13.

<sup>2</sup> OJ C 112 E, 9.5.2002, p. 106.

conservation of existing antibiotic resources, thus underlining the priority of ensuring that the use of antibiotics is effectively controlled and limited to necessary treatment only;

- E. whereas for approximately four decades (from the 1940s to the 1970s) the pharmaceutical industry provided a steady flow of new antibiotics, including several with new mechanisms of action that circumvented the problems caused by resistance to earlier agents; whereas only a few new antimicrobials have been developed and authorised since then;
- F. whereas antimicrobial resistance is an important, largely unresolved, issue which has become a threat to public health in Europe and globally, resulting in longer, more complicated treatments, a diminution of quality of life, a greater risk of deaths (25 000 patients die each year in the EU from an infection caused by resistant micro-organisms), extra healthcare costs and productivity losses of at least EUR 1,5 billion per year;
- G. whereas a high percentage of hospital-acquired infections are caused by highly resistant bacteria such as methicillin-resistant *Staphylococcus aureus* (MRSA) and *C. difficile*, constituting a serious risk to patient safety;
- H. whereas antimicrobial resistance has become such a critical issue that the World Health Organization made it the theme of this year's World Health Day on 7 April 2011 and that the European Union has since 2008 organised an annual European Antibiotic Awareness Day on 18 November;
- I. whereas inappropriate and irrational use of antimicrobial medicines provides favourable conditions for resistant microorganisms to emerge, spread and persist;
- J. whereas antimicrobial resistance in humans is often caused by inadequate doses of antibiotic medicines, by incorrect treatments and through the constant exposure of pathogens to antimicrobial agents in hospitals;
- K. whereas good hygiene in the form of effective hand washing and hand drying can help reduce the need for antibiotics and antimicrobial agents;
- L. whereas, despite the ban on the use of antibiotics as growth promoters and the will to decrease veterinary consumption of antibiotics for inappropriate 'prophylactic' purposes, antimicrobial resistance affects both humans and animals and may potentially be transmitted both ways, making this a truly cross-cutting matter which calls for a coordinated approach at Union level; whereas additional efforts are therefore required to improve agricultural practices so as to help minimise the risk associated with the use of antibiotics for veterinary purposes and the development of resistance in humans;
- M. whereas good husbandry minimises the need for antibiotics;
- N. whereas action against resistance to antimicrobial agents in human medicines cannot therefore be taken in isolation from measures to combat resistance to antimicrobial agents in veterinary medicines, animal feeding stuffs and crop-growing;
- O. whereas EPRUMA<sup>1</sup> is an existing European multi-stakeholder initiative promoting the responsible use of veterinary medicines; whereas the One-Health concept covers both

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<sup>1</sup> European Platform for the Responsible Use of Medicines in Animals.

human and veterinary medicines and EPRUMA recognises antimicrobials as a One Health issue;

- P. whereas antimicrobial resistance is a phenomenon which clearly has cross-border implications and the occurrence of an outlier effect, which would most probably not be manageable with the current resources and knowledge, cannot be excluded and can have unpredictable medical, social and economic setbacks;
1. Notes with concern that antimicrobial resistance is an ever increasing threat to public health in Europe and worldwide, despite the actions taken at European and international level;
  2. Calls for a further intensification of the fight against resistance to antimicrobial agents in human medicines, focusing on, in the following order of priority:
    - the prudent use of antimicrobial agents both for humans and for animals, ensuring that they are only used when effectively needed for actual treatment of disease, with the correct dosage, dose intervals and duration,
    - the monitoring and surveillance of antimicrobial resistance,
    - the need for research into, and the development of, new antimicrobial agents and alternatives,
    - links with measures to combat resistance to antimicrobial agents in veterinary medicines, animal feeding stuffs and crop-growing;
  3. Calls on the Commission to propose without delay a legislative framework for action against antimicrobial resistance, by promoting ‘responsible use’ initiatives and supporting dissemination of, and information about, such initiatives;

#### ***The prudent use of antimicrobial agents***

4. Reconfirms that urgent action is necessary to avoid, or even reverse, further increases in resistant micro-organisms by reducing unnecessary and inappropriate use of antimicrobial agents;
5. Emphasises that the ultimate objective is to maintain antimicrobials as an effective tool to combat disease, both in animals and in humans, while keeping the use of antimicrobials to the strict necessary;
6. Notes that a Commission Report on the implementation of the 2001 Council Recommendation<sup>1</sup> and the 2010 Eurobarometer survey identified a series of shortfalls and gaps in the promotion of the prudent use of antimicrobial resistance;
7. Notes that the level of access to information on antimicrobial resistance and the impact on the consumption behaviour of citizens remain uneven across the Union, in particular with

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<sup>1</sup> [Commission Staff Working Document , Accompanying document to the second report from the Commission to the Council on the basis of Member States’ reports on the implementation of the Council Recommendation \(2002/77/EC\) on the prudent use of antimicrobial agents in human medicine.](#)

regard to the enforcement of the legislation on prescription-only use for antibiotics, as the percentage of antibiotics sold without prescription in 2008 showed considerable differences between Member States;

8. Notes in this respect that Europe is as weak as the weakest link, therefore particular attention should be paid in countries with high levels of antimicrobial resistance;
9. Calls on the Commission to come forward with proposals to significantly reduce the use of antibiotics and to identify and define general principles and best practices on the prudent use of antimicrobial agents, further elaborating on the Council Recommendation of 15 November 2001, and to ensure that these principles and methods are properly implemented in the European Union;
10. Recognises that many misconceptions exist about antibiotics and their effects, and that according to a survey commissioned by the Commission 53% of Europeans still believe that antibiotics kill viruses and 47% believe that they are effective against colds and flu (Special Eurobarometer 338 on Antimicrobial Resistance, April 2010);
11. Recognises that patients' lack of adherence to and compliance with prescriptions, such as failing to complete the course of treatment or not following the dosage recommendations, contributes heavily to antimicrobial resistance;
12. Calls on the Commission to study the issue of inappropriate use and sales of antimicrobial agents with or without prescription throughout the chain – from the doctor and the pharmacist to the patient – in terms of the behaviour of all actors involved, and to implement a comprehensive long-term strategy on the awareness of all these actors;
13. Emphasises the fact that in ensuring the prudent use of antimicrobial agents, attention needs to be paid by the relevant actors to the better use of antibiotics currently available by means of a close examination of the dosage, treatment duration and drug combination;
14. Calls on the Commission and Member States to promote good hand washing and hand drying - especially in hospitals - in order to prevent the spread of infections and reduce the need for antibiotics;
15. Welcomes therefore the annual European Antibiotic Awareness Day on 18 November which aims to raise awareness of the public health threat of antimicrobial resistance and call for more responsible use of antibiotics by multiple actions in Member States;

#### ***The monitoring and surveillance of antimicrobial resistance***

16. Emphasises the importance of a well-functioning monitoring and surveillance system in order to gather reliable and comparable data on the susceptibility of pathogens to antimicrobial agents and the infections caused by them, allowing for trend analysis, early warnings and monitoring of the spread of resistance at national, regional, and Community level, and to collect data on the prescription and use of antimicrobial agents so that overall use can be monitored;
17. Welcomes therefore the work begun by the European Antimicrobial Resistance Surveillance System (EARSS) and European Surveillance of Veterinary Antimicrobial Consumption (ESVAC), and now continued by ECDC, on the gathering of high quality, comparable, EU-

wide data on antimicrobial resistance, while recognising that there are still many difficulties with respect to data access and the quality of data in some countries; welcomes also the work begun by the European Surveillance of Antimicrobial Consumption Project, and now continued by ECDC, on gathering high quality, comparable EU-wide data on antimicrobial consumption;

18. Emphasises the importance of diagnostics in the fight against antimicrobial resistance, and calls for more investment in this field and for more efficient and better use of current diagnostic tools;
19. Calls on the Commission, the ECDC and other relevant EU agencies to work together without delay to develop a harmonised and integrated monitoring system for antimicrobial resistance and antimicrobial use in Europe, including an early warning response for new resistance mechanisms and strains;

***The need for research into, and the development of, new antimicrobial agents and alternatives***

20. Recognises that the growing gap between the frequency of infections caused by resistant micro-organisms and the decline in research into, and development of, new antimicrobial agents is now threatening to take the public health sector back to the pre-antibiotic era;
21. Considers the decline in research and development to be the result of a market failure and calls on the Commission to make proposals, via regulatory pathways and other types of measures, to create or improve incentives for the pharmaceutical industry to intensify investment in research into, and development of, new antimicrobial agents and possible alternatives;
22. Reiterates the need for more research on new antimicrobials and possible alternatives under the EU's Research Framework Programmes, and encourages collaborative research at EU level which can lead to efficiency gains;
23. Notes that the lack of rapid diagnostics has contributed to both antibiotic overuse and the rising costs of development;
24. Recognises the need to promote complementary measures such as the use of effective vaccines to prevent infections, as included in the Council Conclusions on innovative incentives for effective antibiotics of 1 December 2009;

***Holistic approach***

25. Calls on the Commission to ensure that measures on antimicrobial resistance and public health are part of a holistic approach to antimicrobial resistance, recognising the links with measures to combat resistance to antimicrobial agents in veterinary medicines, animal feeding stuffs and crop-growing, specifically as regards the risk of cross-transmission;
26. Calls on the Commission to address the lack of information on EU-wide antibiotic use in veterinary medicines by gathering high quality, comparable, species-specific data for each Member State;
27. Welcomes efforts to align and improve the regulatory assessment of new antibiotics;

28. Calls on the Commission to continue to support EARRS and ESVAC in gathering data on the use of antibiotics as a basis for future measures to ensure responsible use;
29. Calls on the Commission to make legislative proposals to phase out the prophylactic use of antibiotics in livestock farming;
30. Stresses that the livestock and intensive fish-farming sectors should focus on preventing disease through good hygiene, housing and animal husbandry, as well as strict bio-security measures, rather than the prophylactic use of antibiotics;
31. Calls, in particular, for the establishment of good practices for animal husbandry which minimise the risk of antimicrobial resistance; emphasises that these practices should in particular apply to young animals brought together from different breeders thus increasing the risk of communicable diseases;
32. Notes that when pharmaceutical residues are not disposed of properly, they end up in our waterways thus increasing unintentional exposure to a variety of substances linked to antibiotic resistance; calls on the Commission to promote further research into the impact of long-term exposure to pharmaceutical residues through water and soil;
33. Calls for a separation between the active ingredients and effect mechanisms used in human medicine and veterinary medicine, to the extent possible, to reduce the risk of resistance against antibiotics being transferred from livestock to humans, but points out that this must not result in the imposition of restrictions on existing treatment options that are effective;
34. Considers that the use of so called 'last resort' antibiotics targeting problematic human pathogens should be permitted for agricultural use only under licensed conditions combined with resistance monitoring, preferably on an individual basis;

### ***International cooperation***

35. Calls on the Commission to strengthen its close operation with the World Health Organisation (WHO), the World Organisation for Animal Health (OIE) and other relevant parties and organisations at international level in order to deal more effectively at a global level with antimicrobial resistance; welcomes in this context the establishment of the EU-US Transatlantic task force on urgent antimicrobial resistance (TATFAR);
36. Calls on the Commission to ensure that sufficient financial and human resources are available to implement the relevant strategies;
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37. Instructs its President to forward this resolution to the Council and the Commission.