

Setting Antimicrobial Resistance Straight

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This publication has special relevance for health professionals in Spain, Italy, Croatia and Hungary where antibiotic consumption increased since 2013

Know it all and want to get involved? Skip to the end of the article

Introduction




Antimicrobial resistance (AMR) is a recurring topic in EU policy circles, with mentions in important European Parliament and Commission publications in 2006¹, 2012², 2015³ and featured again high on the policy agenda last November 18th 2016 with the ninth European Antibiotic Awareness Day coinciding with the second WHO Antibiotic Awareness Week. During this week, Commissioner for Health and Food Safety Vytenis Andriukaitis announced a second Action Plan on AMR to be launched in 2017.⁴

AMR is widely recognized as a multifaced issue that needs a multiple stakeholder approach as well as each stakeholder engagement through looking at different intertwined policies e.g. HCAI and prescribing protocols. From EHMA's point of view, raising awareness on AMR is fundamental and we have thus identified key information, support research and materials to draw upon.

What is AMR

Antimicrobial Resistance (AMR) is the ability of microorganisms to resist antimicrobial treatments, especially antibiotics.⁵ It may occur naturally but the phenomenon is mostly increased by excessive and inappropriate use of antimicrobial medicines and poor infection control practices in animals and humans.⁶

More specifically, AMR is said to be accelerated by:

-  An antibiotics consumption and prescription culture where antibiotics are taken for health issues when in fact they have no proven benefit (e.g. for viruses).
-  Irresponsible disposing of pharmaceuticals during the production process⁷ or by consumers⁸
-  Overuse of antibiotics in livestock, and specifically the last line antibiotic for human treatment called Colistin⁹.

What are the risks

With resistance to antimicrobials increasing, treatments for common bacterial diseases will take longer and will become more expensive. Eventually, all available treatments might become ineffective resulting in increased mortality. Multi-drug resistance is currently observed worldwide in HIV/AIDS, malaria, sexually transmitted diseases, urinary tract infections, pneumonia, blood-stream infections and food poisoning, and in Europe particularly in TB and Gonorrhoea. However, borders no longer restrict the spread AMR to regions or continents. To illustrate the speed AMR is progressing, researchers found that resistance to last line antibiotics that treat pneumonias (carbapenem) increased from 6.2% in 2012 to 8.1% in 2015.¹⁰

The Commission highlighted the urgency of the threats of AMR, estimating €1.5 billion in costs each year due to extra healthcare costs and productivity losses in the EU.¹¹ And more importantly, if no action is taken, AMR will result in 10 million deaths globally each year.






Some argue a solution to AMR can be found in the development of new, potent antibiotics. However, development of new antibiotics has slowed down significantly, in part due to the limited profitability to pharmaceutical companies, says S&D MEP Glenis Willmot¹². Moreover, experts predict that no new strands of antibiotics will be effective against the most dangerous forms of antibiotic-resistant bacteria in the future¹³. Therefore, although investments into new antibiotics should be stimulated, this alone is no sustainable answer to the issue of AMR.

Stressing the urgency of the situation, MEP Glenis Willmot (S&D, UK) wrote for Parliament Magazine: “There is still time to act to prevent a global catastrophe that could see medicine plunged back into the dark ages but it will require genuine commitment and leadership, and we must take action now.”¹⁴





Take Action

The path towards a sustainable solution requires good practice in all relevant industries. The WHO published the following steps for health professionals, managers and policy makers to reduce the impact and limit the spread of resistance¹⁵, integrated by EHMA with Health Management focused suggested actions.






Policy makers

-  Ensure a robust national action plan to tackle antibiotic resistance is in place.
-  Improve surveillance of antibiotic-resistant infections.
-  Strengthen policies, programmes, and implementation of infection prevention and control measures.
-  Regulate and promote the appropriate use and disposal of quality medicines.
-  Make information available on the impact of antibiotic resistance.

Health Management

-  Assess current situation regarding systems and infrastructure focussed on minimising organisational impact of AMR.
-  Review best practice on systems for operational response to risk of AMR.
-  Ensure boards considers problem, policies and monitoring, making links to HCAI, procurement, prescribing policies, etc.
-  Assess training and information needs.

Health professionals

-  Prevent infections by ensuring your hands, instruments, and environment are clean.
-  Only prescribe and dispense antibiotics when they are needed, stay up-to-date on current guidelines.
-  Report antibiotic-resistant infections to surveillance teams.
-  Talk to your patients about how to take antibiotics correctly, antibiotic resistance and the dangers of misuse.
-  Talk to your patients about preventing infections (for example, vaccination, hand washing, safer sex, and covering nose and mouth when sneezing).

Healthcare industry

-  Invest in research and development of new antibiotics, vaccines, diagnostics and other tools.

Additionally, MedTech Europe has drawn attention to the benefits eHealth and mHealth solutions can play in tackling AMR. ¹⁶ Useful applications of Technology are proposed for the dissemination of information, better diagnosis through personalised medicine, and efficient monitoring of prescribed antibiotic use with eHealth devices.

Learn more?

EHMA has selected these two documents as must reads if you wish to learn more. The first is a Commission factsheet for the time-pressed health manager; it highlights key information about the cause, consequences and prevention measures to AMR in the EU and worldwide, and is suitable for printing and redistribution in your organisation.

- http://ec.europa.eu/dgs/health_food-safety/docs/amr_factsheet_en.pdf

If you have longer to spare, this thirteen-page read by the WHO gives a more inclusive oversight of global risks and actions to AMR:

- http://apps.who.int/iris/bitstream/10665/193736/1/9789241509763_eng.pdf?ua=1.

Finally, for further study the European Commission hosts a library of studies into AMR on its website here:

- http://ec.europa.eu/dgs/health_food-safety/amr/projects/index_en.htm

The European Centre for Disease Prevention and Control (ECDC) can help you to plan your campaign against AMR. The ECDC provides a large range of materials for all professionals in the health industry **in all languages** to help increase knowledge about AMR (e.g. info sheets, videos, ppt presentations), which can be accessed here:

- <http://ecdc.europa.eu/en/EAAD/> (the language drop-down is slightly hard to see and can be found in the top right corner next to the ECDC logo)

Engage with the AMR Community

The European Commission recently opened a public consultation on AMR open for both citizens and organisations. Contribute to the EU AMR policy discussion here:

- http://ec.europa.eu/dgs/health_food-safety/amr/consultations/consultation_20170123_amr-new-action-plan_en.htm

If you or your organisation is interested in actively participating, consider subscribing to the newsletter of an ongoing international project on AMR under the name Joint Programme Initiative on Antimicrobial Resistance (JPIAMR). Visit the website to subscribe to the newsletter, participate in workshops, or submit research papers.

- <http://www.jpiamr.eu/>

¹ [http://www.europarl.europa.eu/RegData/etudes/etudes/join/2006/375884/IPOL-JOIN_ET\(2006\)375884_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/etudes/join/2006/375884/IPOL-JOIN_ET(2006)375884_EN.pdf)

² <http://www.europarl.europa.eu/news/en/news-room/plenary/2012-12-10/10>

³ [http://www.europarl.europa.eu/RegData/etudes/STUD/2015/542223/IPOL_STU\(2015\)542223_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/STUD/2015/542223/IPOL_STU(2015)542223_EN.pdf)

⁴ http://europa.eu/rapid/press-release_IP-16-3805_en.htm

⁵ http://ec.europa.eu/dgs/health_food-safety/docs/amr_factsheet_en.pdf

⁶ http://europa.eu/rapid/press-release_IP-16-3805_en.htm

⁷ <https://www.euractiv.com/section/health-consumers/news/pharma-pollution-is-overlooked-cause-of-antimicrobial-resistance/>

⁸ https://noharm-europe.org/sites/default/files/documents-files/2616/Pharm%20Report_WEB.pdf

⁹ <https://www.food.gov.uk/science/research/foodborneillness/b14programme/b14projlist/fs102127/a-systematic-review-of-amr-in-pork-and-poultry-dairy-products-seafood-and-fresh-produce>

¹⁰ http://europa.eu/rapid/press-release_IP-16-3805_en.htm

¹¹ http://europa.eu/rapid/press-release_MEX-16-3529_en.htm#6

¹² <https://www.theparliamentmagazine.eu/articles/opinion/amr-global-problem-requiring-global-response>

¹³ <http://www.who.int/mediacentre/factsheets/antibiotic-resistance/en/>

¹⁴ <https://www.theparliamentmagazine.eu/articles/opinion/amr-global-problem-requiring-global-response>

¹⁵ <http://www.who.int/mediacentre/factsheets/antibiotic-resistance/en/>

http://www.medtecheurope.org/sites/default/files/resource_items/files/AMR%20New%20Position%20Paper.pdf