Partnership to Fight Infectious Disease

Partnership to Fight Infectious Disease on addressing the antimicrobial resistance threat in Europe

About PFID

The Partnership to Fight Infectious Disease (PFID) is a non-profit group of patients, providers, community organizations, academic researchers, business and labor groups, and infectious disease experts working to raise awareness of threats posed by infectious diseases. PFID aims to explore and advance solutions to combat the growing threat of antimicrobial resistance (AMR).

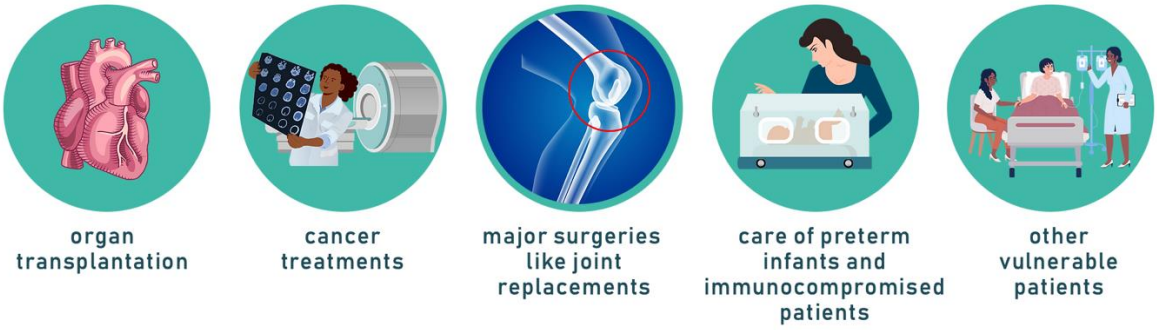
Our experience

PFID strongly advocates in the United States (US) for passage of the Pioneering Antimicrobial Subscriptions to End Upsurging Resistance (PASTEUR) Act,[1] which would allow biopharmaceutical companies to enter into subscription contracts with the federal government for critical-need antibiotics. The Act would also seek to prevent overprescribing by establishing a new grant system to support antibiotics stewardship programs in hospitals.

The AMR challenge

Infections due to AMR are a significant threat to modern healthcare as well as to public health. In Europe, 33,000 individuals are estimated to die every year as a result of an infection caused by antibiotic-resistant bacteria.[2] The COVID-19 crisis reinforced the critical importance of treatments for infectious diseases, as many related deaths and severe cases involve not only the virus, but also complicated by secondary bacterial infections. AMR is a threat to all of us, especially those with chronic conditions. Without effective antibiotics, patients lose not just treatments for serious infections, but also face significantly increased risks from many medical services that rely upon the effective prevention and treatment of infections.

Many everyday procedures rely on our current arsenal of antibiotics, these include:



The shortage of new antibiotics has two main causes. Firstly, the development of new and novel antibiotics to treat AMR infections is very scientifically challenging– the last novel class of antibiotics was approved in 1986[3]. Secondly, the market for new antibiotics is not commercially sustainable.

Taking a 'One Health' approach

[1] https://www.congress.gov/bill/116th-congress/senate-bill/4760
[2] https://www.thelancet.com/journals/laninf/article/PIIS1473-3099(18)30605-4/fulltext
[3] https://www.sciencedirect.com/science/article/pii/S1369527419300190

AMR can only be successfully addressed through a multi-disciplinary approach which integrates human and animal health as well as the environment's impact on developing new resistance patterns. According to the Organisation for Economic Co-operation and Development, antibiotic consumption and the types used, vary considerably in Europe.[4] The increasing use of broad-spectrum antibiotics as well as last-line antibiotics throughout Europe highlights the crucial need for more investments into infection prevention and control measures as well as stewardship practices.

Although the surveillance of AMR is robust in Europe as a result of the European Antimicrobial Resistance Surveillance Network, the reports published by the European Center for Disease Control and Prevention currently do not link to patients' hospital records or outcomes. The European Commission's proposal for a European Health Data Space is a welcome initiative to better understand the burden of AMR in Europe and develop science-based policies.

The environment is thought to contribute to the development, transmission and spread of AMR. In particular, households, farms, hospitals, and manufacturing plants have been identified as hotspots for the release of high levels of antimicrobial compounds into the surrounding soil and water. Guidance and regulations are therefore needed to ensure the sustainable production of antibiotics in Europe, including criteria for wastewater management. PFID would particularly welcome the inclusion of AMR aspects into the Good Manufacturing Practice in Europe to promote a more holistic assessment of environmental risk throughout the antimicrobial life cycle.

Stimulating the pipeline for antibiotics

AMR stewardship necessitates that newer antibiotics are preserved and used only when older existing antibiotics fail to treat infections. However, those use restrictions create financial barriers to develop new antibiotics by severely delaying and limiting any return on investment. As a consequence, a number of companies have launched novel antibiotics into the market only to declare bankruptcy months later as a result of the negative market environment.

A future EU solution on AMR must be comprehensive and adequately address both push and pull incentives to stimulate the R&D pipeline for novel antibiotics, as neither alone can change the status quo. PFID welcomes proposed action within Europe's Pharmaceutical Strategy to explore maintaining incentives and any new types of pull incentives for innovative antibiotics and calls for these to include ways of estimating and rewarding the value of different types of antibiotics for society.

Availability and access to existing antibiotics

Many EU Member States have recently faced shortages of older, narrow-spectrum antibiotics such as penicillin, with some products no longer being available on the market. Therefore, healthcare professionals are finding it challenging to adhere to recommendations to preferentially prescribe narrow-spectrum antibiotics, the right drug for the right bug, instead of broader-spectrum products which contribute to increasing AMR. PFID calls on the Commission's DG Health Emergency Preparedness and Response Authority to engage with all key stakeholders as they develop an action plan to ensure adequate and uninterrupted access to antibiotics within EU Member States.

Global collaboration on AMR

AMR knows no borders – collective, global collaboration is essential if we are to ensure the foundations of modern medicine remain intact. The COVID-19 experience further highlighted the importance of securing our global supply of antibiotics within upcoming pandemic preparedness plans, such as within the international pandemic prevention, preparedness and response accord. The EU should therefore look to deepen its collaboration with other global health leaders such as the United States - for instance, by working

[4] https://www.oecd.org/health/Antimicrobial-Resistance-in-the-EU-EEA-A-One-Health-Response-March-2022.pdf

together to strengthen actions related to stewardship and infection control and prevention within the 2015 Global Action Plan on AMR[5] by the World Health Organisation, the World Organisation for Animal Health and the Food and Agriculture Organization of the United Nations and the United Nations Environment Programme.

[5] https://www.amcra.be/swfiles/files/WHO actieplan_90.pdf