Stop AMR Global Media Monitor

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Why Europe needs a Health Union

The current crisis has exacerbated poverty and inequality - not least in health. Healthcare professionals have emerged as more indispensable than ever, yet remain extremely vulnerable. Public finances are being stretched further than during the financial crisis of a decade ago. If Europe's healthcare systems are to survive and emerge from the current crisis fit for the future, greater collaboration is essential.

As of now, healthcare systems devour increasing amounts of funds as demand grows exponentially, raising questions of sustainable affordability; lagging investments in IT in health, and the twin scourges of non-communicable diseases such as cancer and arguably, the greatest potential killer of them all: antimicrobial resistance. As stated by Commission President Ursula von der Leyen in her State of the EU speech on 16 September, Europe has the chance to show global leadership in tackling immense challenges and must act now before health emergencies get worse.

Source: The Parliament Magazine , 29 September 2020

Confronting antimicrobial resistance beyond the COVID-19 pandemic and the 2020 US election

In the USA, more than 2.8 million multidrug-resistant bacterial infections occur annually, causing at least 35,000 deaths and $20 billion in health-care expenditures. In 2017, the US Food and Drug Administration banned use of antibiotics as growth promoters in livestock. Yet that same year, the US Department of Agriculture rejected WHO's guidance to limit antibiotic use in livestock feed and maintained that appropriate use includes "treating, controlling and preventing" disease under veterinary supervision.

As the country with the highest number of Covid-19 cases and deaths, the US needs to also respond to another potential pandemic: Antimicrobial Resistance (AMR). A recent study found that 72% of COVID-19 patients received antibiotics even when not clinically indicated, which further promotes AMR. Furthermore, AMR might worsen under COVID-19 due to the overuse of antibiotics in humans, continuing misuse in agriculture, and the dearth of antimicrobials in the development pipeline.

Regardless of the outcome of the 2020 US election, the path forward must address AMR in the context of pandemic preparedness. A coordinated One Health response is needed, with action from multi-sectoral and cross-sectoral stakeholders in human and veterinary medicine, agriculture, finance, environment, industry, and consumers, to address what is as much an environmental issue as an economic one. The COVID-19 pandemic is a wake-up call that something needs to be done, and fast, at a global collaboration level to tackle the next global health threat.

Source: The Lancet , 29 September 2020

Penicillin: a British researcher's team has sequenced the original Fleming's mold genome

In 1928, Alexander Fleming changed the history of medicine forever by accidentally discovering antibiotics due to a mold that contaminated some of the Petri dishes he was working on. More recently, a team of British researchers have started studying, once again, that same mold, *Penicillium notatum*. For the first time, the team has sequenced the mold's genome and has compared it to two strains of Penicillium from the US that are currently used to produce penicillin on an industrial

scale. Specifically, two different types of genes were examined more closely: those that produce the enzymes responsible for the production of penicillin and those that regulate the activity of these enzymes and their production.

This new research could provide new useful information in combating the ever-growing problem of AMR. The team led by Tim Barraclough (Professor at the Imperial College London and at Oxford University) is mainly looking for differences that have naturally evolved over time. This may help in the search for new methods of producing antibiotics to combat superbug resistance.

Source: FocusTech, 29 September 2020 (Italian)

Ireland publishes new Code of Conduct on the use of antimicrobials in sheep farming

The Ministry of State for Land Use and Biodiversity, together with the Irish Farmers' Association (IFA), the Department of Agriculture, Veterinary Ireland and Teagasc have published a new Code of Good Practice regarding the responsible use of antimicrobials in sheep, following the publication last year of two codes of practice on the use of antimicrobials on dairy farms and pig farms.

The new code seeks to promote strategies among sheep farmers and their vets which will reduce the use of antimicrobials in sheep flocks and the spread of AMR, particularly emphasizing the central role of good flock husbandry.

President of Veterinary Ireland Conor Geraghty said "*As with all good management, the new code advocates a planned approach and attention to detail. However, this will provide major benefits in commercial returns for farmers and, importantly, the prolonged effectiveness of key antibiotics in the fight against major diseases in both animals and humans*".

Source: AgriLand, 28 September 2020

Muhammad Zaman on the Increasing Dangers of Antibiotic Resistance

In his gripping, highly readable new book, *Biography of Resistance: The Epic Battle Between People and Pathogens*, Dr. Muhammad Zaman, says there is an equally urgent crisis before us—drug-resistant infections.

Chapter by chapter, Zaman shows how bacteria have been able to quickly elude our arsenal of increasingly potent antibiotic drugs since the first ones were introduced for widespread use in the 1940s. He illustrates the myriad factors that have contributed to microbial resistance, including the overprescribing of antibiotics, counterfeit drugs that are often of poor quality, the large-scale use of antibiotics in agriculture, and ongoing wars and conflicts, which, he says, "contaminate waterways, destroy infrastructure, and create drug-resistant infections."

If we fail to address the growing crisis of drug-resistant infections, "*we are likely to face a public health crisis of unimaginable proportions,"* says Zaman. "***It will be like the great plague of the Middle Ages, the influenza pandemic of 1918, the AIDS crisis of the 1990s, and the Ebola epidemic of 2014 all combined into a single thread***."

Source: BU Today , 22 September 2020