

Can the Antimicrobial Resistance Benchmark blaze a new trail?

A year has passed since the landmark declaration at the UN General Assembly on antimicrobial resistance (AMR), acknowledging the threat to people, animals, agriculture, and the environment.¹ On Oct 12–13, 2017, a conference organised by the Wellcome Trust in partnership with the UK, Ghanaian, and Thai governments and the UN Foundation, in support of the work of the Antimicrobial Resistance Inter-Agency Coordination Group (IACG), aimed to accelerate efforts to tackle rising drug-resistant infections. More than 700 000 people die every year from drug-resistant bacterial infections.² Sales of generic antibiotics alone are predicted to increase from US\$27.1 billion in 2015 to \$35.6 billion by 2022.³ The goal must be to achieve access to quality, appropriately prescribed antibiotics for humans and animals. Stewardship mechanisms that incorporate equitable access models, infection prevention programmes, and new classes of antibiotics are all needed.

AMR has risen up the global agenda, headlining at the G7, the G20, the World Economic Forum, and in the UN Agenda for Sustainable Development. Pharmaceutical and biotechnology companies have also publicly committed to tackling AMR.^{4,5} The veterinary sector through the Health for Animals Initiative, WHO, along with Food and Agriculture Organization of the United Nations (FAO) and the World Organisation for Animal Health (OIE), have outlined measures they can take, echoing the need for a One Health multisectorial approach.^{6,7} These commitments include a focus on priority pathogens, ramping up action on surveillance and reporting, improving training, education, and research, and setting global standards for antibiotic use.

No single stakeholder can bring AMR under control. Each sector needs a blueprint of agreed actions that will impact positively on resistance rates, with defined indicators to measure their impact. Tracking and benchmarking the actions of each player also helps the organisations involved to adjust their actions over time. The sharing of good practices is crucial for all stakeholders to determine where further opportunities for action exist, and to inspire change in the innovation, production, and marketing of antimicrobials.

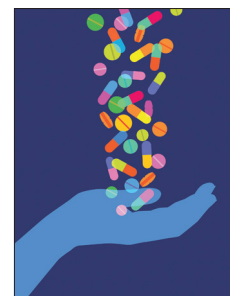
This need is what drove the Access to Medicine Foundation to develop the Antimicrobial Resistance Benchmark.⁸ This new benchmark will map the actions

of 30 pharmaceutical companies against a set of 15 priorities developed through a multistakeholder consensus from stakeholders and experts working on AMR, including those from the UK and Dutch Governments, WHO, Chatham House, Pew Charitable Trusts, the Review on AMR, the AMR Industry Alliance, CARB-X (the Combating Antibiotic Resistant Bacteria Biopharmaceutical Accelerator), and the DRIVE AB (Driving reinvestment in research and development and responsible antibiotic use) project.

The AMR Benchmark will be published in early 2018 and has been independently developed with close reference to the research and initiatives underway to address AMR. It will show where action is being taken in research and development for priority pathogens, access to antimicrobials and their stewardship, and manufacturing and production, with a critical eye on a company's environmental risk management strategy. The benchmark will channel stakeholders who are active in drug resistance, such as governments, non-governmental organisations, and academic institutions, to engage with companies who are responding and, where they can, collaborate.

The AMR Benchmark will give stakeholders a tool for deepening engagement in efforts to address the global rise in drug-resistant infections, and is intended to complement monitoring by WHO, FAO, OIE, and the Conscience of Antimicrobial Resistance Accountability (CARA), among others. It will inform advocacy efforts and product development partnerships—eg, the Global Antibiotic Research and Development Partnership (GARDP) and CARB-X. Additionally, the AMR Benchmark will help national efforts to educate and increase awareness of the role of the pharmaceutical industry across the One Health platform, and even hopefully amplify the results of investments made by major donors.

The AMR Benchmark will act as a mechanism for the industry—as a group of most relevant players—and individual actors in the pharmaceutical sector to review progress and as a non-financial incentive to reward good practice for the development of new medicines, vaccines, and diagnostics. When used in conjunction with “push” incentives that reduce the costs of financial inputs for developers, and “pull” incentives, which promise



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reward for the development of new products targeting priority pathogens, we hope the AMR Benchmark will contribute towards the suite of incentives that the global community needs to drive the response to drug-resistant infections.

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JKI is Executive Director of the Access to Medicine Foundation that has created the Antimicrobial Resistance (AMR) Benchmark. MM serves as an independent member of the Expert Committee in the AMR Benchmark providing strategic guidance on the methodology. JKI and MM declare no other competing interests.

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