## BSAC and Pfizer collaboration to improve patient outcomes by addressing access disparities in antimicrobial stewardship (AMS)

## Jacqueline Sneddon<sup>1</sup> and Andy Townsend<sup>2</sup>

<sup>1</sup>Programmes Manager, British Society of Antimicrobial Chemotherapy (BSAC); <sup>2</sup>External Medical Engagement Lead, Pfizer

Around the world, many patients face barriers to equal and quality care based on factors that include their age, gender, ethnicity, socioeconomic status and even geographic proximity leading to poor health outcomes. Unfortunately, the response to the global pandemic has exacerbated this issue and has put health disparities in the spotlight. Antimicrobial resistance (AMR) has also been adversely impacted by the pandemic due to increased use of antibiotics<sup>1</sup>.

AMR affects all countries, but the burden is disproportionately higher in LMICs<sup>2</sup>. Factors such as poor hygiene and sanitation, limited access to adequate healthcare infrastructures, and lack of regulations contribute to AMR and the COVID-19 pandemic has exacerbated the problem<sup>3</sup>. Patients in resource-limited settings are more likely to be prescribed antibiotics inappropriately to treat common infections. AMS is important to help control, contain and mitigate AMR by supporting the appropriate use of antimicrobials. Patients receiving care in low resource facilities may not have equitable access to effective and holistic AMS programmes while underserved populations in high income countries often receive suboptimal care with respect to use of antibiotics due to racial and socioeconomic inequalities<sup>4,5,6</sup>. The inequitable access to AMS programmes increases the inappropriate use of antimicrobials, hinders access to new medicines, and, consequently, disproportionately impacts the burden of AMR.

Pfizer has been a leader in tackling some of the most persistent healthcare challenges, including infectious disease. The company has a long and proud heritage addressing evolving infectious disease challenges, stemming from its pioneering work on penicillin in the 1940s. Pfizer continues to pursue a collaborative, multi-pronged approach to help drive industry-leading solutions across the areas of active stewardship, innovative surveillance, global policy, manufacturing and R&D. Pfizer is also committed to building a more equitable future for patients and taking action to address disparities that have long hindered accessible treatment and care. This includes a new initiative to tackle pressing healthcare disparities impacting patients today including higher morbidity and mortality rates due to AMR in underserved populations.

Pfizer Hospital Chief Medical Officer, Dr Pol Vandenbroucke, said, "All patients, no matter who they are or where they live, deserve the best possible treatment. I'm proud of the work Pfizer is undertaking in collaboration with British Society of Antimicrobial Chemotherapy (BSAC) to help tackle these pressing healthcare References disparities and raise the standards of care for vulnerable patients."

As a learned society with 50 years' experience in infection and antimicrobial use, and over 3,000 members across 76 countries, BSAC's position as a world leader in education provision has attracted partnerships with a variety of organisations including 4. Global Antibiotic R&D Partnership (GARDP), International Centre for Antimicrobial Resistance Solutions (ICARs) and Médecins Sans 5. Frontières (MSF). Recent initiatives to provide free open access education courses that are relevant and multilingual to meet the needs of healthcare professionals in LMICs have built the

foundation for supporting development of new AMS programmes globally.

In 2022, BSAC is progressing development of a Global Antimicrobial Stewardship Accreditation Scheme (GAMSAS) which will be a sustainable, points-based accreditation scheme to drive improvements in AMS in all healthcare settings. The scheme will use self-assessment surveys together with expert support to Identify areas of practice requiring improvement and identify good practice that can be shared. A key contribution from BSAC will be educational support through utilisation of resources and bespoke training to support AMS practice. The scheme will also create awareness of variation in AMS provision amongst healthcare payers and users, facilitating research to address this and providing evidence to bridge the gap between policy and practice. The aim is to create a network of Centres of Excellence to support and encourage other organisations to build sustainable AMS programmes.

To start this GAMSAS journey, BSAC has collaborated with Pfizer to focus on areas of greatest need, building upon the strengths and ambitions of both organisations. The focus will be to establish AMS Centres of Excellence and support the creation of holistic education and training programmes on optimal use of antibiotics in facilities with limited resources and / or underserved populations. Our hope is that these programmes will raise awareness of AMR among healthcare professionals to improve outcomes for patients and address a long-standing health inequity. Our multi-step standards will accommodate the wide range of staff and facility resources available across different countries.

BSAC President Dr David Jenkins said, "I am excited to see this collaboration launched and we look forward to supporting hospitals with disparities to improve antimicrobial use and to share learning with local networks via our GAMSAS initiative." Pfizer and BSAC jointly released a Quality Improvement Request for Proposals (RFP) for Establishing Antimicrobial Stewardship (AMS) Centres of Excellence to Improve Patient Outcomes by Addressing Access Disparities in January 2022. Following consideration of applications by an Expert Review Panel, the initiative will commence in June 2022 with 10 centres from a variety of low-, middle- and high-income countries to implement improvement actions supported by the independent grant and establish BSAC's first tranche of AMS Centres of Excellence.

- 1. Bradley J et al. Antibiotic prescribing in patients with COVID-19: rapid review and meta-analysis, Clin Microbiol Infect. 2021;27:520-531.
  - O'Neill. J. Tackling Drug-Resistant Infections Globally: Final Report and Recommendations. Review on Antimicrobial Resistance. Wellcome Trust and HM Government. 2016
  - Sulis G et al. Antimicrobial resistance in low- and middle income countries: current status and future directions. Expert Rev Anti Infect Ther. 2022;20:147-160
  - Gopal Rao G et al. Key demographic characteristics of patients with bacteriuria due to extended spectrum beta-lactamase (ESBL)-producing Enterobacteriaceae in a multiethnic community, in North West London, Infect Dis. 2015;47:719-724
  - Kempker JA et al. Risk Factors for Septicemia Deaths and Disparities in a Longitudinal US Cohort, Open Forum Infect Dis. 2018;15;5:ofy305
  - Jones JM et al. Racial Disparities in Sepsis-Related In-Hospital Mortality: Using a Broad Case Capture Method and Multivariate Controls for Clinical and Hospital Variables, 2004-2013. Crit Care Med. 2017;45:e1209-e1217.