Book review: Tackling drug-resistant infections globally

Dear Editor,

Antimicrobial resistance (AMR), a growing global problem, has attracted a lot of attention recently. Recently, the Prime Minister of the United Kingdom commissioned a review on the subject with the support of both the United Kingdom government and the Wellcome Trust.

The report of the review team is divided into five chapters. The first chapter introduces the problem and highlights why tackling it is essential. The second chapter focuses on preserving the power of existing antimicrobials by reducing their demand while the third chapter deals with increasing the supply of new antimicrobials. The fourth chapter focuses on paying for tackling AMR while the fifth chapter concentrates on ideas for implementation and the next steps.

The executive summary provides an excellent overview of the review. Among the steps to reduce demand for antimicrobials mentioned are a massive global awareness campaign, improving hygiene and preventing the spread of infection, reducing unnecessary antibiotic use in agriculture, improving global surveillance of AMR and antimicrobial consumption, promoting new and rapid diagnostic tests, promoting development and use of vaccines and alternatives, and improving the numbers, pay and recognition of people working in infectious diseases. The report’s suggestions to increase the number of new antimicrobials are to create a global innovation fund to support research and better incentives to develop antimicrobials. The tenth recommendation which the authors consider very essential for the success of the other interventions is to create a global coalition to fight AMR.

According to the report, AMR accounts for around 700,000 deaths every year and the figure is expected to rise to 10 million by the year 2050. The report highlights the fact that investment in antimicrobials is not attractive and only about 5% of the pharmaceutical investment was in this area. Improper sanitation is a major factor behind infectious diseases, and through case studies, the report highlights how improved sanitation can reduce cases of diarrhea. The review highlights gaps in AMR surveillance, especially in developing countries, and the need to develop systems to address gaps in knowledge. The report highlights the problem of unnecessary use of antibiotics and mentions how out of the 40 million persons given antibiotics for respiratory issues in the United States, 27 million persons get antibiotics unnecessarily. Rapid diagnostic tests would help in identifying the microorganism and its sensitivity pattern more quickly and will insure that the correct treatment is provided faster.

Tuberculosis and HIV/AIDS are two important diseases where AMR is an increasing problem with an urgent requirement for newer antimicrobials. Excellent and well-designed tables and figures improve the readability of the book. The book mentions how if not tackled, AMR could result in a death toll of one person every three seconds by 2050. The summary list of recommendations at the end will be very useful to readers. This well-produced and designed book will be of interest to all interested in the problem of AMR.

About the book
Jim O’ Neill (chair). The review on antimicrobial resistance. Tackling drug-resistant infections globally:
Final report and recommendations. May 2016. Available free of cost from: http://amr-review.org/sites/default/files/160518_Final%20paper_with%20cover.pdf

With regards

P. Ravi Shankar

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Conflicts of interest
There are no conflicts of interest.

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