

Letters to the Editor

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Toppling the top-down approach: An example of managing antibiotic resistance in Malaysia

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Dear Editor,

The overuse and misuse of antibiotics have considerably accelerated the emergence and spread of antibiotic resistance worldwide, thereby posing a catastrophic threat to human health.^{1,2} In Malaysia, strict regulations exist for obtaining antibiotics. They can only be prescribed by registered medical practitioners and dispensed by registered pharmacists. Nevertheless, these medicines are often requested by and dispensed to patients without a prescription.

The appropriate use of antibiotics is a behavioural issue, and a multifaceted approach is needed to address the issue of antibiotic resistance around the globe.^{3,4} Healthcare systems principally rely on a top-down approach to combat issues related to antibiotic resistance, beginning with health system leaders (e.g., policy makers and regulators) and working down to the organisational and individual levels.

With advances in pharmaceutical care and patients' involvement in treatment plans, it is insufficient to rely solely on a top-down approach to control the escalating rates of antibiotic resistance. Today, successful mobilisation of civil-society organisations is a critical component of strategies for combating the growing threat of acute and chronic diseases. Therefore, we advocate the implementation of a bottom-up approach at the organisational and individual levels—this can play an essential role in modifying individual behaviour in the treatment of health-related issues.

Within this context, the School of Pharmaceutical Sciences of Universiti Sains Malaysia—in collaboration with ReAct (Action on Antibiotic Resistance) and Yayasan Bina Ilmu—is currently undertaking an initiative to move addressing the issue of antibiotic resistance from the hospital setting to the local community. ReAct is an independent global network for concerted action on antibiotic resistance, and Yayasan Bina Ilmu is a civil-society organisation engaged in social work related to education, health, and welfare in the State of Penang, Malaysia.

Study participants in this novel project are community members of Jelutong District, Penang. They are ordinary people of different age, gender, ethnicity, educational, and social backgrounds; none of them are healthcare professionals.

The first phase of the study focuses on a pre-intervention assessment of the knowledge, perceptions, and behaviours of community members towards antibiotics and issues related to antibiotic resistance. In the second phase of the project, an educational programme will be developed and implemented that will promote the appropriate use of antibiotics and the prevention of infectious diseases and antibiotic resistance in the community. In the third phase of the study, a post-intervention assessment of knowledge, perceptions, and behavioural changes among community members will be conducted. Healthcare professionals acquire adequate knowledge of antibiotics and antibiotic resistance in their training. Therefore, they will act as facilitators, not participants, in this educational programme.

Coordination, communication, and commitment among all stakeholders will play vital roles in making this project a success. The findings of this study will serve as a reference for policy makers seeking to manage antibiotic resistance at the community level in Malaysia.

Sincerely,

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Substandard medications in Yemen

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Dear Editor,

Substandard medications represent a serious public health issue, especially in some developing countries.¹ In Yemen, the wide availability of substandard medications is a major challenge facing the healthcare system.² In this letter, we will briefly discuss the current situation in Yemen where unregistered medications, including substandard and counterfeit medication, are prevalent. In addition, we will discuss strategies that may provide guidance for health authorities to effectively combat the current situation.

Yemen is a lower-middle income country.³ Currently, the Yemeni healthcare system faces many challenges with access to healthcare services and medications being the primary ones. These issues are even worse for the 70 per cent of the population that live in rural areas because they lack access to even basic health services. Health services are

mainly available in the capital and urban cities, and patients have to pay for consultation, diagnostic tests, and medications. However, some medications for chronic diseases (e.g., insulin, anticancer medications, and medications for renal failure) are given free to the patients.⁴

Like other countries, Yemen's pharmaceutical expenditure is steadily increasing. The total pharmaceutical expenditure in 2013 was approximately USD \$426 million, which accounts for approximately 40 per cent of the total health expenditure, thus making it a lucrative market. Presently, the Yemeni pharmaceutical industry produces only 9.7 per cent of medications, which makes the country highly dependent on imported medications.⁴ In 2010, there were more than 12,000 registered pharmaceutical products in Yemen according to the Supreme Board for Drug and Medical Appliances (SBDMA), Yemen's regulatory authority for medications. However, the pharmaceutical market is poorly regulated and lacks strict control of quality, safety, and efficacy of medications. This is just one of several factors that have led to the wide availability of substandard and counterfeit medications.⁵ It has been estimated that up to 60 per cent of the medications available in the Yemeni market are unregistered products and have not gone through Yemen's drug approval system.⁶

As an example of the prevalence of substandard medications, Abdo-Rabbo et al. found 6.7 per cent of chloroquine syrup samples (n=25), and 20 per cent of chloroquine phosphate tablets (n=25) failed to meet the content specifications. Moreover, there was dissolution failure for some chloroquine tablets.^{1,7} In addition to the lack of regulation and quality control, other factors have led to the wide availability and use of substandard and unregistered medications in Yemen: a shortage of some essential medications for the treatment of chronic diseases; unaffordability of standard medications for the country's low-income population; the high prices of some medications; and the high rate of illiteracy.⁸ Moreover, the country's political conflict and instability, coupled with the continuous hardship throughout Yemen, severely affects the healthcare system as a whole, including the registration and quality monitoring of medicines in the pharmaceutical market. Additionally, healthcare professionals have raised the issue of the distribution of smuggled and counterfeit medications as a major obstacle, and it is known that the wide presence of counterfeit medications has caused healthcare professionals to lose confidence in the healthcare system.⁹

To combat the counterfeit medications, health authorities have initiated some efforts such as the awareness campaign “My medicine is my life”.⁴ This campaign targeted pharmacists, the importing drug companies, and other healthcare professionals to educate them about the risks of smuggled and counterfeit medications. To further improve the situation and combat this problem, we have two suggestions:

1. At the regulatory level, it is important to ensure only registered products can be available in the market.
2. Before marketing, all medications must be tested to ensure that they meet the required standards, including quality and safety aspects.

To implement this, the medicine registration centre needs to be supported at all levels, including more financial support, more manpower (i.e., increasing staff), analytical instruments with advanced technology, and increased capacity to do the registration and approval of all medications.

Healthcare professionals can play a vital role in ensuring the safety and quality of medications. They should only procure medications from drug distributors and agencies registered and licensed by the Ministry of Health (MOH). Health authorities and healthcare professionals should educate consumers, the end users of medications, about the harm that could occur from using unregistered medications. Moreover, awareness campaigns need to emphasise the importance of buying medications only from the licensed pharmacies.

In conclusion, the current situation in Yemen can be improved. To do so, all stakeholders, including health authorities, healthcare professionals, and consumers, must work together.

Sincerely,

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