

## Unchecked Antibiotic Access: A Looming Crisis in Pakistan

Sir,

We are writing in response to the article "Antibiotic Resistance: Recommendations for Procurement Agencies of Public Sector Hospitals in Pakistan", addressing antibiotic resistance in Pakistan, published in your journal, JCPSP.<sup>1</sup> The authors have highlighted the multifaceted challenges contributing to this growing public health concern and have proposed several commendable recommendations for combating it. However, we believe that another problem warrants further attention and emphasis: The urgent need for strict monitoring and enforcement of the laws against the dissemination of non-prescribed antibiotics.

The first antibiotic, Penicillin, was discovered in 1928. And by 1999, due to increased antibiotic consumption by the healthcare and cattle industry, Micheal Blum, M.D, a medical officer in the Food and Drug Administration's division of anti-infective drug products, expressed 'We have come to a point for certain infections, we do not have antibiotics available'. Over the last 10 years, global antibiotic consumption has increased by 36%.<sup>2</sup> Even if we use antibiotics for their intended purpose, we risk resistance. By using them without necessity, we are catalysing the process further.

Pakistan is one of the top antibiotic-consuming countries, and antibiotics in our country are often self-prescribed. In Pakistan, official legislation known as the Drug Act of 1967, states antibiotics to be strict prescription drugs that cannot be used over the counter. The Punjab Healthcare Commission Act of 2010 defined unnecessary antibiotic administration / prescription as medical negligence by health practitioners (doctors and pharmacists alike). Yet a study conducted in the Punjab region in August 2022 discovered that 96.9% of pharmacies dispensed antibiotics without a prescription.<sup>3</sup>

From a public health perspective, resistant bacteria are difficult to treat or eradicate. One example is extensively drug-resistant typhoid fever (XDR-TF), which emerged in the world for the first time in 2016 through Pakistan and it has continued to wreak havoc in many parts of our country, especially Sindh, ever since. XDR-TF remains susceptible to azithromycin, carbapenems, and tigecycline. Only azithromycin of these options is affordable and administered by mouth. This means not only do we lack favourable options for treating the infection but also for treating serious complications of the disease.

Aside from the public health risks, antibiotic misuse is a financial burden on our country's underpaid and overburdened healthcare system. Antibiotic-resistant bacteria, according to the National Foundation for Infectious Diseases (United States of America), cause over 2.8 million illnesses each year, with over

35,000 deaths. It increases direct healthcare spending by 20 billion dollars.<sup>4</sup>

The public must understand that antibiotics are not miracle cures or panaceas for health issues. Allowing doctors to do their jobs is the single most effective thing they can do to ensure the longevity and health of their loved ones. At the institutional level, it must be recognised how critical it is not only to enact stricter legislation regarding antibiotic dispensing but also to enforce this legislation. It is essential not only for us but for all of humanity.

In light of this, we propose the inclusion of a sixth recommendation aimed at controlling and monitoring the dissemination of antibiotics without prescriptions. This would entail robust enforcement of legislation to prohibit the sale of non-prescribed antibiotics, as well as strict penalties for violators. By implementing such measures, we can curtail the indiscriminate use of antibiotics and prevent the emergence of resistance.

### COMPETING INTEREST:

The authors declared no conflict of interest.

### AUTHORS' CONTRIBUTION:

AK, SD: Design, analysis, conception, and drafting.

Both authors approved the final version of the manuscript to be published.

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Amna Khan and Sundus Dadan

Shifa Clinical Research Centre, Shifa International Hospital, Islamabad, Pakistan

Correspondence to: Dr. Amna Khan, Shifa Clinical Research Centre, Shifa International Hospital, Islamabad, Pakistan  
E-mail: [amna\\_khan97@icloud.com](mailto:amna_khan97@icloud.com)

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**AUTHOR'S REPLY**

Sir,

Thank you very much for your letter. The proposal aligns with global efforts to combat antibiotic resistance, emphasising the importance of regulatory measures in addition to healthcare interventions. By prioritising the monitoring and enforcement of laws related to antibiotic sales, Pakistan can take a proactive stance in safeguarding public health. This recommendation addresses a critical aspect of the issue, ensuring a comprehensive approach towards combating antibiotic resistance in the country. Prioritising the monitoring and enforcement of antibiotic sales laws will send a strong message to healthcare

providers, pharmacists, and the general public about the importance of responsible antibiotic use. It will accentuate the need for adherence to prescribing guidelines and discourage self-medication practices, which are rampant in our community.

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*Zair Hassan*

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*Department of Medicine, Hayatabad Medical Complex, Islamabad, Pakistan*

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*Correspondence to: Dr. Zair Hassan, Department of Medicine, Hayatabad Medical Complex, Islamabad, Pakistan*  
*E-mail: zair.hassan7272@gmail.com*

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