

Excessive Use of Azithromycin in Pakistan amidst the Covid Pandemic

Hafsa Shaikh

Madam, The COVID pandemic which started in 2019 and has claimed lives of millions of people in the past year is now seeing a new surge in cases in several countries. In Pakistan due to lack of adherence to Standard Operating Measures the cases are increasing at an alarming rate.

Many people in Pakistan suffering from COVID remain undiagnosed due to lack of testing kits.¹ During the winter season there has been a rise in cases of common cold which can become difficult to distinguish from mild COVID infection. Unnecessary prophylactic antibiotic prescription and self-medication is already very common in our country as proved by many researches as the one conducted by Zikria Saleem et al in 2019.² There have not been many studies post COVID which show the statistics of antibiotic use but from personal experience I have observed that most COVID patients either self-medicate themselves or are prescribed azithromycin as a prophylactic measure. Azithromycin is a macrolide which is only recommended when secondary bacterial pneumonia is either suspected or confirmed and the risk of actually developing superimposed bacterial infection in patients infected with the corona virus is very low.³ Since most patients with mild COVID infection do not develop bacterial pneumonia this antibiotic is not needed and its excessive usage may lead to development of resistance in a population which already has limited antibiotic options available.

Furthermore excessive use of azithromycin may lead to cardiac arrhythmia, although limited evidence is available on this topic but other drugs of the same group such as erythromycin are known to have arrhythmogenic effects.⁴

Pakistan has previously suffered from outbreak of Typhoid XDR which only exhibits susceptibility for Azithromycin and Carbapenem, the former being the only orally available drug option. Therefore we cannot afford to develop

5th Year MBBS Student, Bahria University Medical and Dental College, Karachi, Pakistan.

Correspondence: Hafsa Shaikh. e-mail: hafsshkh100@gmail.com

resistance to this drug as we would only then be left with Carbapenem which is expensive and would require hospital admission thus further burdening the hospitals.⁵

It is very essential that we highlight the importance of judicious antibiotic prescription as well as formulate laws to prevent non-prescription dispensing of antibiotics to prevent their misuse. Before prescribing azithromycin, bacterial pneumonia should be confirmed by sputum testing, blood culture and urinary pneumococcal antigen test.³ More research needs to be done to determine the overall burden of antibiotic misuse amongst COVID patients.

DOI: <https://doi.org/10.47391/JPMA.3323>

Disclaimer: None.

Conflicts of interest: None.

Funding disclosure: None.

References

1. Khalid A, Ali S. COVID-19 and its Challenges for the Healthcare System in Pakistan. *Asian Bioeth Rev* 2020; 12: 551–64.
2. Saleem Z, Hassali MA, Versporten A, Godman B, Hashmi FK, Goossens H, et al. A multicenter point prevalence survey of antibiotic use in Punjab, Pakistan: findings and implications. *Expert Rev Anti Infect Ther* 2019; 17: 285–93.
3. Sieswerda E, de Boer M, Bonten M, Boersma WG, Jonkers RE, Aleva RM, et al. Recommendations for antibacterial therapy in adults with COVID-19 - an evidence based guideline. *Clin Microbiol Infect* 2021; 27: 61–6.
4. Sultana J, Cutroneo PM, Crisafulli S, Puglisi G, Caramori G, Trifirò G. Azithromycin in COVID-19 Patients: Pharmacological Mechanism, Clinical Evidence and Prescribing Guidelines. *Drug Safety* 2020; 43: 691–8.
5. Akram J, Khan AS, Khan HA, Gilani SA, Akram SJ, Ahmad FJ, et al. Extensively Drug-Resistant (XDR) Typhoid: Evolution, Prevention, and Its Management. *BioMed Res Int* 2020; 2020: 6432580.