

New study finds very high rate of unnecessary antibiotic prescribing in SA

March 22 2019



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A study by researchers at Wits and the London School of Economics has revealed very high rates of antibiotic prescribing in South Africa.

Researchers in the Centre for Health Policy in the Wits School of Public Health and in the Department of Health Policy at the London School of

Economics and Political Science shared the findings at the Antibiotic Prescribing Study Dissemination Workshop at Wits on 20 March.

The study, which investigated unnecessary antibiotic prescribing in [primary health care](#) in South Africa, found that 78 percent of patients sent to a public clinic and 67 percent of patients sent to a private general practitioner (GP) received [antibiotics](#), even though antibiotics were not clinically indicated for these patients.

The study results are important because unnecessary antibiotic prescribing is known to be related to the development of antibiotic resistance.

Antibiotics, which are used to treat infections caused by bacteria, are responsible for many of the improvements in medicine over the last 60-70 years. However, most bacteria are becoming resistant to the antibiotics previously used to treat them. This poses a threat to public health as some common infections are now much more difficult to treat. Antibiotic resistance (ABR) is particularly critical for South Africa, which has a high burden of infectious diseases and among the highest rates of ABR in the world.

Previous research in South Africa has focused more on antibiotic use in hospitals. However, data from other countries has shown that the majority of antibiotics are usually prescribed in [primary care](#). Respiratory tract infections (RTIs), such as the common cold and acute bronchitis, are amongst the main problem areas because [primary care providers](#) prescribe antibiotics for these infections even though they are caused by viruses rather than bacteria.

The Wits-LSE study was done in one of the large metropolitan cities in South Africa. It used standardised patients (SP), also sometimes called mystery patients, to evaluate unnecessary antibiotic prescribing for acute

bronchitis in primary care. Afterwards, the participating nurses and doctors were interviewed to explore why they prescribed antibiotics when they were not clearly indicated.

This is one of the first studies to properly document the extent of antibiotic prescribing for [respiratory tract infections](#) in primary care in South Africa, and the very [high rates](#) of antibiotic prescription by both public nurses and private GPs is a concern.

The healthcare provider surveys also revealed significant knowledge gaps, particularly in relation to the recommended management of acute bronchitis. However, better clinical knowledge was demonstrated in appropriate antibiotic use—[healthcare providers](#) who identified a probable viral cause in the patient case, and who knew antibiotics are not recommended for treating acute bronchitis, were much less likely to have prescribed an antibiotic. This suggests that healthcare provider education can contribute to improving rational antibiotic use.

One reason given by primary care doctors and nurses to explain their unnecessary antibiotic prescribing was that patients demand or expect antibiotics. That did not happen in this study, because the standardised patients never asked for antibiotics. In fact, a second group of patients sent to the study providers explicitly told the doctors and nurses that they did not want antibiotics unless they were really necessary. Antibiotic prescribing decreased by 20 percent for these cases in both the public and private sectors. This finding suggests that providers sometimes prescribe antibiotics because they assume patients expect them, and that patient awareness campaigns may partly help address the problem. However, it is worth noting that more than half of these [patients](#) still received antibiotics even after stating they didn't want them, indicating more entrenched patterns of prescribing behaviour that may be more difficult to change.

Overall the study has shown that national ABR strategies and campaigns also need to be concerned with what is happening in primary health care services, if the use of antibiotics is to be preserved for future generations.

Provided by Wits University

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