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Adherence to antimicrobial guidelines across sectors among African countries; findings and implications

Israel Abebrese SEFAH^{1, 2}, Amanj KURDI^{3,4,5}, Jacqueline SNEDDON⁶, Johanna C MEYER⁴, Stephen CAMPBELL^{7,8}, Olayinka OGUNLEYE^{9,10}, Brian GODMAN^{3,4,11*}

¹Pharmacy Practice Department of Pharmacy Practice, School of Pharmacy, University of Health and Allied Sciences, Volta Region, Ghana.

²Pharmacy Department, Keta Municipal Hospital, Ghana Health Service, Keta-Dzelukope, Ghana. Email:

³Strathclyde Institute of Pharmacy and Biomedical Sciences, University of Strathclyde, Glasgow G4 0RE, United Kingdom

⁴Division of Public Health Pharmacy and Management, School of Pharmacy, Sefako Makgatho Health Sciences University, Ga-Rankuwa, Pretoria, 0208, South Africa

⁵Department of Pharmacology, College of Pharmacy, Hawler Medical University, Erbil, Iraq

⁶Scottish Antimicrobial Prescribing Group, Healthcare Improvement Scotland, Delta House, 50 West Nile Street, Glasgow G12NP, UK

⁷Centre for Primary Care, Division of Population Health, Health Services Research and Primary Care, University of Manchester, Manchester, M13 9PL, UK

⁸NIHR Greater Manchester Patient Safety Translational Research Centre, School of Health Sciences, University of Manchester, Manchester, UK

⁹Department of Pharmacology, Therapeutics and Toxicology, Lagos State University College of Medicine, Ikeja, Lagos, Nigeria

¹⁰Department of Medicine, Lagos State University Teaching Hospital, Ikeja, Lagos, Nigeria. Email: olayinka.ogunleye@lasucom.edu.ng

¹¹School of Pharmaceutical Sciences, Universiti Sains Malaysia, Penang, Malaysia

*Author for correspondence

Background and objectives: Adherence to standard treatment guidelines (STGs) is a pragmatic way to improve the quality and safety of antimicrobial prescribing. Previous studies showed adherence to guidelines as superior to assess quality compared to WHO/INRUD criteria and indicators, which include percentage INN prescribing and the number of antibiotics/prescription. Point prevalence surveys (PPS) are used to assess the quality of antimicrobial prescribing in hospitals, including guideline adherence. This study aimed to document STG adherence rates and associated rationale across sectors in Africa to highlight transferable learning and provide future direction. **Method:** Mixed approach, utilizing previous published studies coupled with unpublished studies, comprising one retrospective cross-sectional survey among ambulatory patients in one hospital in Ghana managing community-acquired pneumonia (CAP) and recently submitted PPS studies in Nigeria and South Africa. **Results:** Published studies in ambulatory care in Namibia showed 73% adherence, lower than the 80% target, with similar rates in a follow-up study among a range of public healthcare facilities. Key factors enhancing adherence were programmatic, including easy access to up-to-date and objective guidelines and ease of referencing. This compares to previous studies in Botswana where availability of guidelines in ambulatory care was a challenge, and in South Africa where adherence to guidelines for STIs was low. In Ghana, among 1929 CAP patients, adherence to national guidelines was only 32.5%. Factors affecting adherence included duration of antibiotic use, number of antibiotics prescribed, and certain patient clinical characteristics. This compared to a 50.0% to 66.7% rate of guideline adherence among two hospitals in Ghana, although for many indications, no guideline existed. In Namibia, adherence to national guidelines among referral hospitals was a 62%, lower than 95% target. Among hospitals in South Africa, there were concerns with adherence to guidelines for surgical prophylaxis in pediatric patients. This compares to 90.2% to 98% of prescribed antibiotics within South African STGs and Essential Medicine List in recent PPS studies. In Nigeria, there were no national or local guidelines to assess adherence in a recent PPS. The instigation of antimicrobial stewardship programmes (ASPs) among hospitals in Africa can enhance future adherence to guidelines through a variety of measures including education, prescribing toolkits and regular audit, reducing inappropriate antibiotic prescribing and costs. **Conclusion:** Adherence to agreed national and local guidance is variable across Africa due to a variety of reasons. Typically, multiple measures surrounding ASPs in hospitals and community settings are needed to enhance adherence to guidelines.