

Abstract

Worldwide, more than 70.00% of micro-organisms are becoming resistant to antibiotics with these numbers increasing annually. The majority of antibiotics are prescribed in Primary Health Care (PHC) clinics and in South Africa most of the population utilises these healthcare clinics. Despite this, there are a limited number of studies done on antibiotic prescribing patterns at the PHC clinics in South Africa.

Aim: This study aims to establish the attitudes, perceptions and practices of nurses in PHC clinics in the management of antibiotic resistance.

Method: This mixed method research study was done by quantitatively conducting a survey with 11 prescribing nurses at the PHC clinics, quantitatively reviewing 396 antibiotic prescriptions dispensed in the retrospective three-month study period at seven PHC clinics within the City of Johannesburg and by qualitatively interviewing eight PHC trained prescribing nurses regarding their prescribing practices. Outcomes of the study were reported to each study site education committee for the purposes of review.

Results: The results obtained from the surveys demonstrated that 81.82% of participants agreed that antibiotics are overused in South Africa. Majority (90.91%) of the PHC trained nurse prescribers based their decisions on the PHC antibiogram in patients that have no bacterial culture information while 100.00% of participants based their decision on the PHC STG. Antibiotic stewardship programmes and guidelines are useful for 90.91% of participants with regards to their education on antibiotics.

Across all seven PHC clinics, the diagnosis was not stated in 19.95% of the antibiotic prescriptions while 77.78% of prescriptions had one antibiotic prescribed, 42.17% of antibiotic prescriptions were incomplete while 54.29% of prescriptions had an incorrect drug prescribed and 52.53% of prescriptions were incorrect according to the PHC Standard Treatment Guidelines (STGs). While conducting the interviews it was determined that factors that contribute to resistance are patient related factors such as patients buying antibiotics over-the-counter, patient education, sharing medication and patient compliance as well prescriber related factors such as incorrect prescribing.

Conclusion: Antibiotic related errors such as incomplete prescriptions and incorrect drugs are very common at PHC clinics and these errors contribute to antibiotic resistance. There is an urgent need to improve antibiotic prescribing practices by educating both the PHC prescribing nurses and patients as well as providing resources to the PHC clinics in order to decrease prescribing errors thereby decreasing antibiotic resistance.