

Disposal of unwanted medicines in patients' homes in a South African district - What patients know versus their practice

Mahlaba KJ¹, Helberg E¹, Godman B^{1,2,3}, Kurdi A², Meyer JC¹

¹Division: Public Health Pharmacy and Management, School of Pharmacy, Sefako Makgatho Health Sciences University

²Strathclyde Institute of Pharmacy and Biomedical Sciences, University of Strathclyde, Glasgow G4 0RE, United Kingdom

³School of Pharmaceutical Sciences, Universiti Sains Malaysia, Penang, Malaysia

Background: Patients have unwanted/unused/expired medicines in households. Home storage leads to accidental/inappropriate use, while disposing in municipal waste-bins, sewage systems and domestic burning is common. These techniques result in medicine trace amounts in water for drinking. South African regulations are not clear on patients post healthcare facility handling of unwanted medicines.

Objective: To investigate patients' knowledge and information provided by healthcare professionals regarding safe household disposal practices of unused/expired/damaged medicines.

Methods: Descriptive and quantitative study with a final sample of 171 conveniently selected patients at 16 randomly selected PHC clinics in two Tshwane districts. Microsoft Excel™ was used for data capturing and analysed using Statistical Package for the Social Sciences (SPSS) version 24 in consultation with a statistician.

Results: Patients reported having unused medicines at home (74.9%). 59.1% reported not checking medicines expiry dates stored at home. Disturbingly, 5.8% of patients stored their expired and non-expired medicines together. Majority of patients received their medicines from primary healthcare clinics (95.5%) and pharmacies (52.0%). 64.9% reported not knowing how to dispose their unwanted medicines, 95.3% attributed this to lack of counselling by healthcare professionals. Returning unwanted medicine to clinics (26.3%) was proposed as an ideal practice for disposing, however, only 7.0% reported returning unwanted medicines. Level of education did not affect returning of unwanted medicines to clinics (low, 12.3%; high, 13.4%).

Conclusions: Patients reported to be using incorrect medicine disposal techniques. Hence, we advocate for strategies to educate patients and healthcare professionals regarding safe and correct medicine disposal techniques.