The Effects of Drug Utilization on our Systems: A blessing or a curse? The Verdict of a Clinical Pharmacologist

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Abstract

The Effects of Drug Utilization on our Systems: A Blessing or A curse? The Verdict of a Clinical Pharmacologist focus on drugs, clinical and preclinical trials and the pattern of drug use and the effects on patients. Potential toxicity of chlorpheniramine plus chloroquine on respiration during treatment of malaria in children was reported. Although chlorpheniramine enhances the efficacy of chloroquine in the study participants, respiratory function appeared to be negatively impacted. Disease pattern at the secondary health care facility buttressed the "double disease burden" which was becoming prominent in the developing world. Cardiovascular diseases and infections were prevalent and we found a huge utilization and expenditure on cardiovascular and anti-infective drugs from a community pharmacy though anti-infective drugs were more utilized suggesting that infection could be a public good indeed. My interest in cardiovascular diseases (CVDs) was given a boost with the finding of 50% increase of CVDs over infections and 150% CVDs increase over a previous report. This among others paved my research interest in cardiovascular pharmacology and pharmacoepidemiology. Drug utilization study of hypertension revealed a landmark result debunking the previously acclaimed poor blood pressure control shedding more light on the need and the role of medicine adherence in spite of free drugs. Our research effort

revealed a paradigm shift to an unprecedented level of blood pressure control which predicated on health education, counseling and availability of health personnel to interact with patients culminating in improved adherence to medication by patients. In addition, introduction of a policy change involving co-payment by patients rather than free drugs contributed to the unprecedented high level of blood pressure control within the international community studied. Physicians managing patients with hypertension should pay attention not only to adequate dosing and appropriate drugs and drug combinations but also to health education and patient counseling. Health-related quality of life (HRQoL) of patients with hypertension and non-hypertensive controls in south-west Nigeria using the World Health Organization (WHO)-QoL-BREF questionnaire revealed that hypertensive patients had poorer HRQoL compared with the normal individuals, but blood pressure control had no effect on this. We found that the prescription of antihypertensive drugs to patients did not directly translate to an improved HRQoL. Hypertensive heart disease was the most common compelling indication. Angiotensin-converting enzyme inhibitors were most frequently prescribed. Hypertensive patients with compelling indications had very poor blood pressure control with significant positive correlation with number of antihypertensive drugs. Increasing number of antihypertensive drugs may suggest poor blood pressure control. However, this may not be unrelated to pill-burden and cost of drugs, especially with out-of-pocket payment. Prescription effectiveness, quality and cost was assessed among hypertensive patients without compelling. Diuretics are mostly prescribed.

The effect of medicinal plants on the blood pressure of rats and rabbits was explored. *Adenanthera pavonina* seed extract was found to lower blood pressure in normotensive rats. *Phragmanthera incana* and *Moringa oleifera* lowered blood pressure in L-NAME-induced

hypertension. Adverse drug reactions monitoring was done for over a year among medical admissions. Blessings and curse scenarios and the verdict are presented.