Guest Editorial

Pharmacology

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An adverse drug event (ADE) is harm or injury caused by the administration of a drug. The World Health Organization definition of an adverse drug reaction (ADR) is any noxious, unintended, and undesired effect of a drug that occurs at doses used in humans for prophylaxis, diagnosis, or therapy. ADRs are an important cause of morbidity and mortality worldwide. A study conducted in Cape Town found that ADRs are the reason for 6% of hospital admissions, and that 6% of medical inpatients develop serious ADRs while in hospital. Importantly, half of the ADRs which resulted in hospital admission were preventable, and could have been avoided with more careful clinical attention when prescribing, and closer attention to patient monitoring.[1]

ADRs have a substantial economic impact. A study of ADRs in medical admissions in a French hospital, published in 2000, estimated the direct cost of hospitalisation due to an ADRs to be € 2 721 (R 26 503). The cost incurred by the hospital due to admission for ADRs in this study was € 11 357 (R 110 630) per hospital bed per year.[2]

In this edition, we explore ADRs relevant to the management of South African patients. Mehta discusses the burden of morbidity and mortality due to ADRs and medication errors. She explores the impact of the HIV epidemic on ADRs in South African patients. She emphasises the importance of awareness of ADRs in our daily clinical practice, and the importance of reporting ADRs to the relevant authorities when they do occur. Parrish explores how to quantify risks and benefits of medicines in order to make rational prescribing decisions which take into account both the benefits and the potential harms of a chosen treatment. Lehloenya gives a comprehensive review of cutaneous ADRs and their management. He provides useful images which enable the reader to distinguish between the common cutaneous presentations. Sonderup discusses the diagnosis, management and important causes of drug-induced liver injury, and gives guidance as to when medicines should be stopped and re-started in patients with deranged liver function tests. Decloedt describes mechanisms of nephrotoxicity due to medicines, and outlines prescribing principles to minimise drug-induced renal injury. Orrell outlines important side-effects of antiretroviral medicines, and how to manage these adverse effects. This is particularly important as the various combinations utilised in the management of HIV-infected patients often make determining the culprit agent difficult. Szabo describes the burden of harm caused by adverse reactions to psychiatric medicines. Finallly, Karabus and Hawarden outline the implications of egg allergy for vaccination.

We hope that this issue will convince that ADRs and medication errors are an important cause of preventable harm in patients. Identification of patients at particular risk of ADRs, and prompt and appropriate management of ADRs are of great importance in improving the quality and cost-effectiveness of patient care. Encouraging a culture of non-punitive reporting of adverse events in the medical community is essential to increase awareness of harm caused by drugs and introduce strategies to mimimise such harm.

References available at www.cmej.org.za