THERE ARE NO SAFE DRUGS, ONLY SAFE WAYS OF USING THEM (VOLTAIRE)

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All medications can heal or to harm, it is the way they are used that determines patient safety. This paper explores medication-related injury in high risk situations, such as the elderly, children, complex regimes and medications with a low margin of safety. Adverse drug events (ADEs) comprise adverse drug reactions and medication errors, with outcomes that include serious morbidity and even death. Australian findings mirror those of overseas. Up to 30% of hospital admissions and re-admissions for the elderly were associated with ADEs, while up to 3% of attendances at the Emergency Department for children were due to ADEs related to conventional and complementary and alternative medications. The hospital-community interface is high-risk, with 20% of those 65 years and older receiving home care after hospital discharge reporting an ADE. Outside the hospital, in general practice up to 25% of high risk patients reported experiencing an ADE in the previous 3 months. Medication errors include errors made in the prescribing, dispensing, administration, monitoring and documentation, and may not always lead to adverse events. An Australian review of medications prescribed to 1000 high risk general practice patients found 115 errors per 100 patients. Reports of dispensing errors in the community pharmacy were much higher (24%) when "mystery shoppers" were used, compared to voluntary reporting and direct observation (<10%). Errors in medication administration are a particular problem in aged care facilities. The majority of ADEs and medication errors are preventable. Interventions have included medication reviews, patient education and changes to the prescription to patient processes, targeting factors contributing to medication errors such as cognitive, performance, behavioural, communication, work environment and the patient's lifestyle.