MEDICATION SAFETY

World Patient Safety Day 2022: Medication without Harm

Adverse reaction to medication? Recognise-Review-Report-Recommend

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*After Mr AL's first episode of gout two months ago, he was prescribed indomethacin, with allopurinol to start after the acute episode. About a month later he was feeling lethargic and unwell and saw his GP, who prescribed amoxicillin for a respiratory infection, which Mr AL supplemented with some vitamins and flu tablets. The next day he presented to the ED with a rash. He was told to stop the antibiotic and flu tablets and prescribed a topical steroid cream. He returned the next day, as the rash was becoming itchy and painful. An antihistamine was prescribed along with ten oxycodone tablets until GP review on the Monday. Overnight his eyes became red and itchy, and he developed mouth ulcers. As it was Sunday and he had run out of oxycodone, he re-presented. In the ED he had difficulty breathing and intramuscular adrenaline was administered without effect. He was admitted. Allopurinol was ceased and treatment started to halt the rapidly developing Stevens Johnson Syndrome.**

**Based on a real case*

Adverse reactions to medications contribute to 5% of hospital admissions and occur in 10–17% of hospitalised patients. They may result in increasing both hospital stay and further complications, as well as impacting patients' physical and psychological well-being.[1] Inaccurate assessment of an adverse reaction can cause harm through not recognising the culprit medication in a timely fashion and/or implicating a wrong or by-stander medication, leading to unnecessary avoidance. It may seem obvious, but a medication taken just before a reaction may not always be the cause of the reaction. Interpreting an adverse reaction takes time and often requires expertise. So, who should be doing this causality assessment?

Taking a complete medication history when a patient presents with a suspected adverse reaction is essential to inform treatment recommendations. As pharmacists are already trained in pharmacology, pharmacokinetics, and pharmacodynamics and are familiar with medication side effect profiles, we should have access to further training in adverse reaction causality evaluation, and be involved in subsequent management, including recommendations for future use.

Medication without harm is the theme for the World Health Organization's World Patient Safety Day 2022. This theme is particularly important for an ageing world population, who often require multiple medications (unfortunately globally known as "poly*pharmacy*") to treat their many morbidities, which increases the risk of adverse reactions.

We are fortunate in Australia to have a Medication Safety Standard[2] which includes a section on Adverse Reactions. However, the emphasis in the Standard is reporting/documentation, which is only one part of adverse

reaction management. Pharmacists should be part of the whole journey, from reviewing concurrent medications, recognising the reaction — whether occurring in community or acute health care settings — determining which medication caused the reaction, and advising the patient, carers, and clinicians about medication management in the future.

To return to Mr AL, he would have greatly benefited from early recognition of the reaction. Our patient's story highlights how important it is, for adverse reaction management to include timely recognition, review of concurrent medications, and thorough causality evaluation. Providing written, evidence-based recommendations for future medication use, assists in limiting patient morbidity and mortality, thus decreasing harm from medications.

References

1. Graudins LV, Ly J, Trubiano J, Aung AK. More than skin deep. Ten year follow up of delayed cutaneous adverse drug reactions (CADR). *Br J Clin Pharmacol* 2016; **84**: 1040–7.
2. Australian Commission on Safety and Quality in Health Care. Medication Safety Standard. ACSQHC. Available from <https://www.safetyandquality.gov.au/standards/nsqhs-standards/medication-safety-standard>.