



Bettering the Evaluation and Care of Health (BEACH) is a continuous, national survey of general practice activity in Australia in which ever changing random samples of about 1000 GPs per year take part. It commenced in 1998.

Adverse medical events

Numbers of adverse medical events managed by GPs on the rise

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Earlier this year, the BEACH team published a report about general practice data in relation to priorities in Australia's health.¹ One of the surprising, though nonetheless important, findings to emerge from the report was the increase over the past decade in the rate general practitioners are managing adverse medical events. We estimate that GPs managed 140 000 more adverse medical events nationally in 2006–2008 than in 1998–2000.² This, however, is probably an underestimate of the prevalence. In order for the diagnosis of an adverse event to be made, the GP has to recognise and manage the problem as an adverse event. It is also possible that some cases are never managed – patients may not return to their GP after experiencing an adverse event, the patient may simply stop taking the medication without consulting their GP, the adverse event may be managed in hospital, or the patient may die from the event. Furthermore, where a diagnosis of an adverse medical event was made, symptoms included rash, nausea, abdominal pain, dizziness, weakness/tiredness, diarrhoea and vomiting. There is a high chance that some presenting symptoms may be thought to be related to the patient's other health problems and not recognised as adverse events.

Adverse events made up 11% of the injuries managed in patients aged 75 years and over, which probably reflects

Australia's aging population being managed for multiple morbidities. This results in polypharmacy, which leads to an increased chance of adverse events.

Another group of patients that contributed to a large number of the adverse medical events were females aged 15–24 years. These adverse events were mainly contraceptive related, such as breakthrough bleeding.

Adverse medical events, particularly adverse drug events, are an important and increasing cause of patient morbidity. In an aging population with increasing multimorbidity, this trend can be expected to continue.

When adverse drug events were specifically investigated in 2003–2004 in a BEACH substudy,³ we found that one in 10 patients had experienced an adverse drug event within the previous 6 months. Most of these patients had experienced one adverse drug event, but almost 1 in 5 had experienced two or more. For 72% of patients, a recognised side effect was cited as the reason for the adverse drug event. Other causes were drug sensitivity and allergy. Half the events were moderate to severe, and almost one-quarter of events were classified as preventable. Hospitalisation occurred in 8% of adverse drug events.

The antidepressant drug group (mainly selective serotonin reuptake inhibitors) most frequently caused an adverse drug event, although the severity was usually mild or moderate and the hospitalisation rate was low. Broad spectrum penicillins had a slightly higher severity and hospitalisation rate. Statins caused the most severe adverse events, followed by calcium channel blockers. Although cephalosporins mainly caused mild adverse events, they had the highest rate of hospitalisation, indicating that the severe cases of adverse events often lead to hospitalisation.⁴

Adverse medical events, particularly adverse drug events, are an important and increasing cause of patient morbidity. In an aging population with increasing multimorbidity, this trend can be expected to continue. Consideration of the risk of polypharmacy for patient welfare is an important part of patient risk management. ♦

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2. Fahridin S. Injury. In: Britt H, Miller GC (eds). General practice in Australia, health priorities and policies 1998 to 2008. Canberra: AIHW, 2009.
3. Miller GC, Britt HC, Valenti L. Adverse drug events in general practice patients in Australia. *Med J Aust* 2006;184:321–4.
4. Miller GC, Britt H, Valenti L. Establishing a research base for improved drug safety in general practice. Presented at 2008 General Practice and Primary Health Care Research Conference in Hobart, 6 June 2008.