

The Extent And Nature Of Medication-related Hospital Admissions Over Six-years: 2011-2016

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BACKGROUND:

The World Health Organization has recently announced that its third global patient safety challenge aims to reduce the global burden of medication-related harm[1]. The increasing availability of medicines worldwide (by prescription and non-prescription), has resulted in an increasing number of medication-related adverse events, especially amongst older people[2].

AIM:

To contrast the medication-related adverse events for individuals with and without dementia.

METHODS:

Using non-identifiable data from the Illawarra Health Information Platform (IHIP), a retrospective longitudinal analysis of medication-related adverse events (2011-2016) was undertaken. Local health district data was analysed for trends, contributing medicines and medicine-related readmissions.



RESULTS:

- There were 31,863 medication-related adverse events;
 - 7% occurred in individuals with dementia (Figure 1)
 - Almost one fifth of the medication-related adverse events occurred in hospital
- More than 20% of individuals with and without dementia were re-admitted for a medication-related adverse event (Figure 2)
- Agents causing hypotension, as well as anticoagulants and antiplatelet agents are major contributors to medication-related adverse events individuals with and without dementia (Table 1)

Figure 1: Number of admissions for medication-related adverse events per year, 2011 - 2016

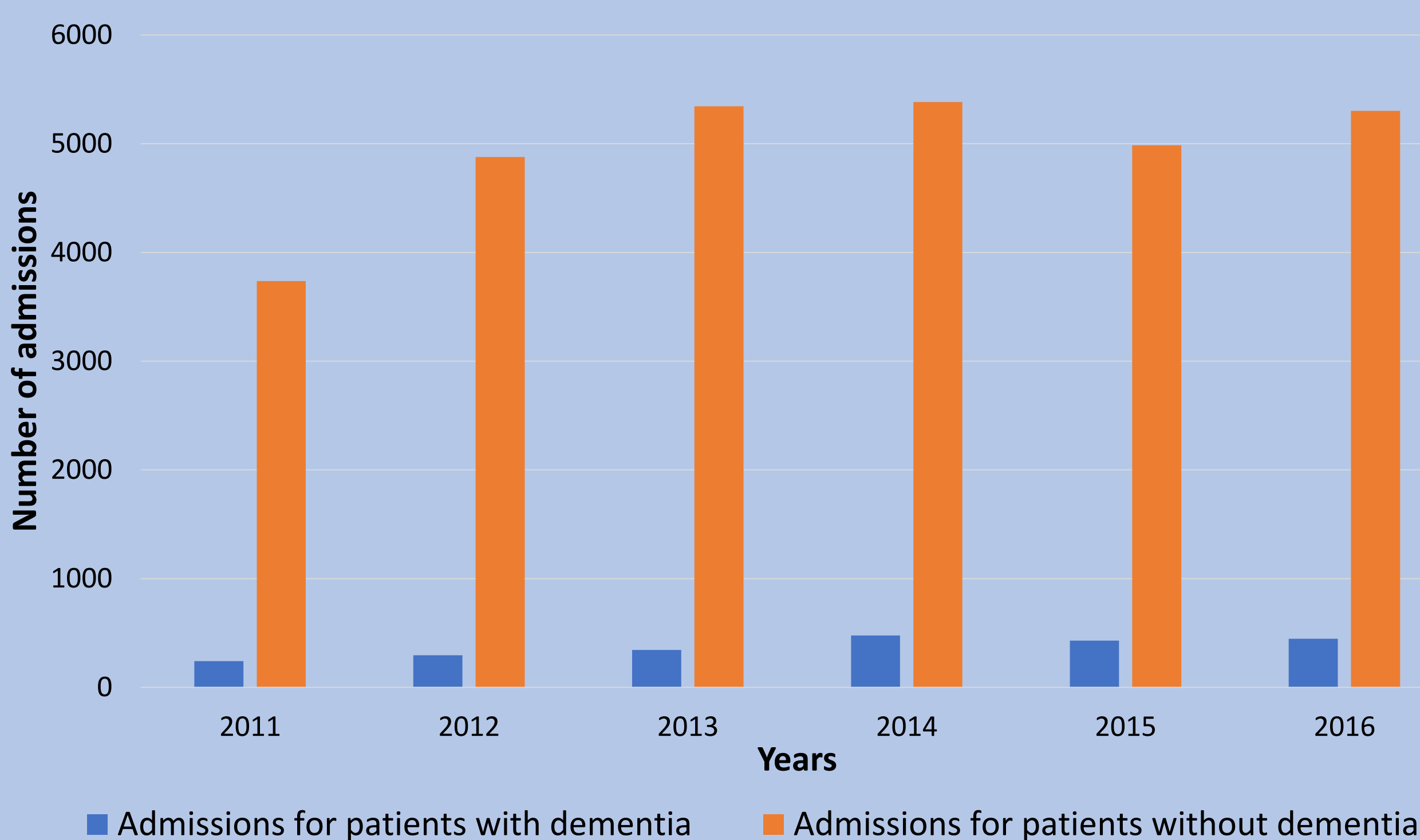


Figure 2: Hospital-coded medication-related adverse events, per individual

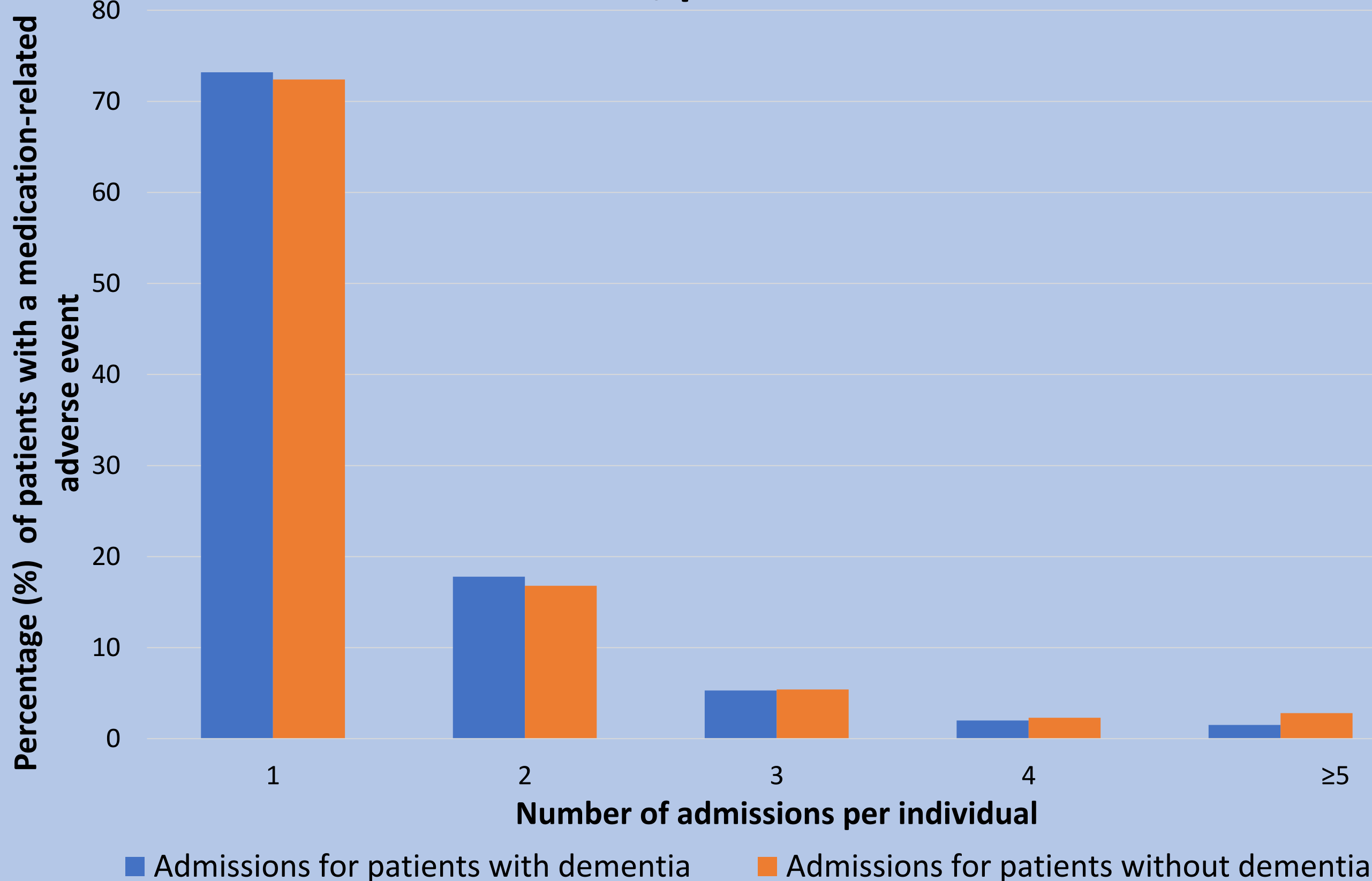


Table 1: Medication groups responsible for hospital-coded medication-related adverse events

| Medication groups | Admissions coded with dementia | Admissions not coded with dementia |
|------------------------------|--------------------------------|------------------------------------|
| All Antihypertensives | 387 | 3406 |
| Anticoagulant & Antiplatelet | 314 | 3169 |
| Non-opioid Analgesics | 306 | 4965 |
| Opioids & Narcotics | 300 | 4118 |
| CNS Depressants, Sedatives | 217 | 2683 |
| Antipsychotics | 157 | 1621 |
| All Anti-infectives | 156 | 2343 |
| All Endocrine | 128 | 1790 |
| Antidepressants | 75 | 1291 |
| Insulin & Hypoglycaemics | 70 | 492 |
| Digoxin | 50 | 371 |
| Anticholinesterases | 25 | 4 |

DISCUSSION/CONCLUSION:

- Medication-related adverse events are a concern for both individuals living with and without dementia.
- Analgesics (non-opioid & opioid) are major contributors to medication-related adverse events in individuals without dementia, and hypotensive agents with dementia.
- Rates of medication-related adverse events have increased over time.

References:

- World Health Organization. Medication Without Harm - Global Patient Safety Challenge on Medication Safety. Geneva: World Health Organization, 2017. Licence: CC BY-NC-SA 3.0 IGO
- World Health Organization. Medication Errors: Technical Series on Safer Primary Care. Geneva: World Health Organization, 2016. Licence: CC BY-NC-SA 3.0 IGO.

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