

MEDICATION SAFETY

Medication safety everywhere: displaying paracetamol and ibuprofen products



Linda Graudins^{1,2} BPharm, DipHospPharm, GradDipClinEpid, AdvPracPharm, FSHP, FANZCAP (MedSafety) and **Toni Howell**^{1,3} BPharm, GradDipClinPharm, MSHP with the Medication Safety Leadership Committee

1. Medication Safety Leadership Committee, Society of Hospital Pharmacists of Australia
2. Medication Safety Lead, Alfred Health, Melbourne, Australia
3. Medication Safety and Strategy Pharmacist, St Vincent's Hospital, Melbourne, Australia

Equitable, timely, safe, and affordable access to medicines is enshrined in Australia's *National Medicines Policy*.¹ The Society of Hospital Pharmacists of Australia (SHPA) Medication Safety Leadership Group supports the availability of small packs of simple pain-relieving medications from retail environments, including community pharmacies, to enable Australians to self-manage symptoms related to short-term health conditions, such as strains, sprains, or mild illness. However, these medications are not without risk of abuse or misuse.

Released in 2022 and commissioned by the Therapeutic Goods Administration (TGA), the *Independent expert report on the risks of intentional self-poisoning with paracetamol* examined aspects of paracetamol toxicity, injury, and death from intentional paracetamol overdose.² While the risk of harm from paracetamol is well known, this report did motivate us to check on the current displays of both ibuprofen and paracetamol products in supermarkets and pharmacies at the point of sale.

Paracetamol and ibuprofen are not without risk

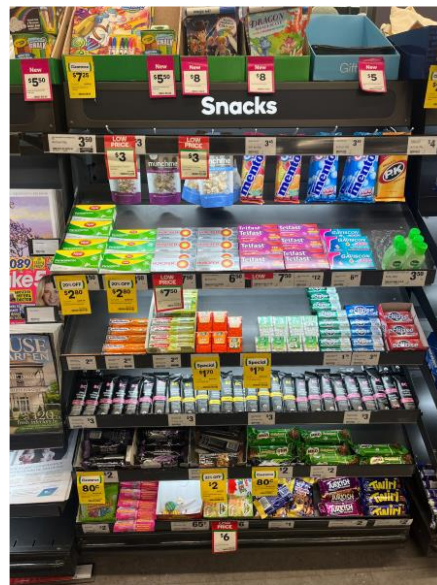
Paracetamol and ibuprofen can pose serious risks if misused. In 2021, 225 people were hospitalised with paracetamol-induced liver injury and 50 people died from paracetamol overdose in Australia.² These figures do not include the almost daily emergency department presentations of people after paracetamol overdose. With timely treatment, symptoms do not progress to irreversible liver damage. However, each presentation involves multiple health care providers, consultations, pathology testing, and causes distress to patients and their carers. Ibuprofen misuse poses similar risks. In 2021, approximately 20 million units of ibuprofen were sold throughout Australia. Over 1500 admissions to hospital were due to ibuprofen poisonings in 2019–2020.³ Although rarely fatal, ibuprofen misuse may cause patients to be admitted to hospital with stomach ulcers and bleeding, as well as exacerbating

kidney damage in patients at risk, such as older people and patients on interacting medications such as tacrolimus.³

Studies have found that most paracetamol self-poisonings are impulsive, and with suicidal intent.² Rates of intentional overdose among adolescents and young adults are increasing.² Paracetamol is traditionally obtained from pharmacies. However, interestingly, in 2021, 25 million paracetamol units were also bought from Australian supermarkets.²

The easy accessibility and display of paracetamol and ibuprofen with non-health items is of particular concern. Figure 1 is an example from an Australian supermarket checkout, where medicines are displayed alongside confectionary products.

Figure 1. Spot the medication! Or is it a snack? 'Keep out of reach of children'?



Unsafe displays of these medicines are not limited to supermarkets and send the wrong message to consumers about risks of pain-relieving medications. Figure 2 is an example taken from a community pharmacy.

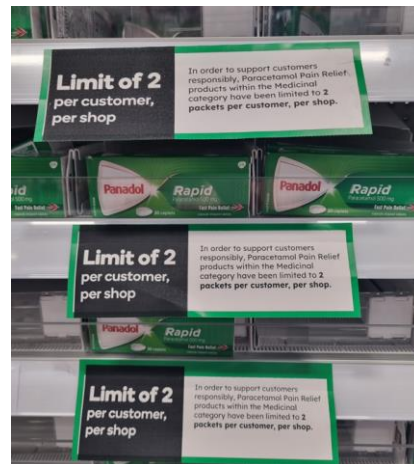
Figure 2. Community pharmacy display



Recommendations from the SHPA Specialty Practice Medication Safety Leadership Committee

The TGA has recently passed a decision to limit pack sizes of simple analgesic agents in supermarkets, which will come into effect from 2025 and changes are already occurring in some outlets, including the introduction of sale limits (Figure 3).

Figure 3. Change is happening? (February 2024)



However, more change is needed.

To support safer storage of medicines outlined in the independent expert report², the Medication Safety Leadership Committee is making these recommendations:

1. Paracetamol and ibuprofen medications must not be displayed adjacent to sweets, snacks, and chewing gum. This promotes the perception that these medications are harmless, whereas, depending on dose, medication interactions, and if taken in overdose, even simple analgesia can cause serious harm.
2. Storage of medications should be in a dedicated health-related area in supermarkets and other retail outlets, including pharmacies, and NOT at the point of sale with non-health-related items.
3. Paracetamol and ibuprofen should be kept out of reach of children
4. Engage with supermarkets and community pharmacies to ensure the safe display of paracetamol and ibuprofen products.

References

1. Department of Health and Aged Care. *National Medicines Policy 2022*. Canberra: Commonwealth of Australia; 2022. Available from <https://www.health.gov.au/resources/publications/national-medicines-policy?language=en>.
 2. Buckley N, Calear A, Cairns R, Reily N, Tang S, McCallum S, et al. *Independent expert report on the risks of international self-poisoning with paracetamol*. Canberra: Therapeutic Goods Administration, Commonwealth of Australia; 2022. Available from <https://www.tga.gov.au/resources/publication/publications/independent-expert-panel-report>.
 3. Ershad M, Ameer MA, Vearrier D. Ibuprofen Toxicity. [Updated 2023 Aug 8]. In: *StatPearls* [Internet]. Treasure Island (FL): StatPearls Publishing; 2023. Available from <https://www.ncbi.nlm.nih.gov/books/NBK526078/>.
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