



5 THINGS

CLINICIANS AND CONSUMERS SHOULD QUESTION

Developed by the Pharmaceutical Society of Australia

1

Do not initiate medications to treat symptoms, adverse events, or side effects (unless in an emergency) without determining if an existing therapy or lack of adherence is the cause, and whether a dosage reduction, discontinuation of a medication, or another treatment is warranted.

The prescribing cascade occurs when a new medicine is prescribed to 'treat' a side effect from another drug. The cascade often occurs in the mistaken belief that the side effect is a sign or symptom of a new condition requiring treatment. Other times, it can be a belief that it is more important to continue therapy with the original drug and prescribe another medicine to manage the side effects. Pharmacists and prescribers need to be aware that a new sign or symptom may potentially be a side effect of a current medicine.

2

Do not promote or provide homeopathic products as there is no reliable evidence of efficacy. Where patients choose to access homeopathic treatments, health professionals should discuss the lack of benefit with patients.

Homeopathic products are widely available to consumers from a variety of platforms including the internet, supermarkets, and health stores. Many consumers are not aware that there is no reliable evidence to support the use of homeopathic products to treat or prevent ailments. There may be a public perception that these products have health benefits. Consumers may put their health at risk if they choose homeopathic products and reject or delay treatments for which there is good evidence for safety and effectiveness. Many products are being sold with little or no information. All health professionals, particularly pharmacists and doctors, have a critical role to educate consumers so they can make informed decisions about how best to manage their health using evidence based medicine.

3

Do not dispense a repeat prescription for an antibiotic without first clarifying clinical appropriateness.

Inappropriate use of antibiotics could result in infection progression, leading to increased patient morbidity and mortality, as well as contributing to antibiotic resistance. In some chronic conditions, such as COPD, repeated antibiotics form part of a management plan. However, in other cases patients commonly request dispensing of repeat antibiotic prescriptions without consultation with their treating doctor, and sometimes well after the original prescription was written. If a repeat prescription for an antibiotic is requested to be dispensed, consider the clinical appropriateness of the request.



4

Do not prescribe medications for patients on five or more medications, or continue medications indefinitely, without a comprehensive review of their existing medications, including over-the-counter medications and dietary supplements, to determine whether any of the medications or supplements should or can be reduced or discontinued.

The use of medications for older people can improve symptom control and reduce disease progression. However, the use of five or more medications is independently associated with poor clinical outcomes including increased hospital admissions, falls and premature mortality. Deprescribing (which is the process of discontinuing or reducing medications) is an intervention to improve the quality use of medicines. Deprescribing is an intervention to manage polypharmacy that requires balancing the potential benefit and harm of each medication then systematically withdrawing medications that are no longer needed or clinically indicated or are inappropriate for that individual at that time. There is a growing body of evidence to support deprescribing in older people.

5

Do not continue benzodiazepines, other sedative hypnotics or antipsychotics in older adults for insomnia, agitation or delirium for more than three months without review.

The use of benzodiazepines, other sedative hypnotics or antipsychotics in older adults for insomnia, agitation or delirium is associated with a range of adverse effects including falls and impaired cognition. Non-pharmacological interventions can be an effective substitute and use of these medicines should be for the shortest duration possible. Reductions in the use of these medicines can be achieved following pharmacist review, interdisciplinary input, staff education and feedback from audits.

6

Do not recommend complementary medicines or therapies unless there is credible evidence of efficacy and the benefit of use outweighs the risk.

Complementary medicines may also be called 'traditional' or 'alternative' medicines and include items such as vitamins, minerals, herbal products, aromatherapy and homoeopathic products. Many of the products available in pharmacies, supermarkets or health food outlets have limited evidence of efficacy. There is some evidence of efficacy for some complementary medicines, however this may be formulation and dose dependent, and health practitioners are encouraged to seek this information before recommending such products.

SUPPORTING EVIDENCE

1.

- Page A, Clifford R, Potter K, et al. A concept analysis of deprescribing medications in older people. *Journal of Pharmacy Practice and Research*. 2018; 48(2): 132-148.
- Rochon P, Gurwitz J. Optimising drug treatment for elderly people: The prescribing cascade, *British Med. J.* 315 (1997) 1096-1099.
- Hilmer S, Gnjdic D. The Effects of Polypharmacy in Older Adults, *Clin.Pharmacol. Ther.* 85 (2009) 86-88.
- Gill S, Mamdani M, Naglie G, et al. A prescribing cascade involving cholinesterase inhibitors and anticholinergic drugs. *Arch. Intern. Med.* 165 (2005) 808-813.
- Vegter S, De Jong-Van Den Berg L. Misdiagnosis and mistreatment of a common side effect - Angiotensin-converting enzyme inhibitor-induced cough, *British J. Clin. Pharmacol.* 69 (2010) 200-203.
- Mohammed MA, Moles RJ, Chen TF. Medication-related burden and patients' lived experience with medicine: a systematic review and metasynthesis of qualitative studies. *BMJ Open*. 2016 Feb 1;6(2):e010035.

2.

- Ernst E. A systematic review of systematic reviews of homeopathy. *Br J Clin Pharmacol.* 2002;54(6):577-582.
- Ernst E. Homeopathy: what does the 'best' evidence tell us? *Med J Aust.*2010;192(8): 458-60.
- National Health and Medical Research Council. 2015. NHMRC Statement on homeopathy and NHMRC Information paper - Evidence on the effectiveness of homeopathy for treating health conditions. At: <https://www.nhmrc.gov.au/guidelines-publications/cam02>.
- Posadski P, Alotaibi A, Ernst E. Adverse effects of homeopathy: a systematic review of published case reports and case series. *International Journal of Clinical Practice.* 2012.
- Stoneman P, Sturgis P, Allum N, et al. Incommensurable Worldviews? Is public use of complementary and alternative medicines incompatible with support for science and conventional medicine? *PLoS one.* 2013;8(1): e53174 Dec 1;66(12):1178-88.

3.

- Australian Commission on Safety and Quality in Health Care (ACSQHC) Antimicrobial Stewardship in Australian Health Care. Sydney: ACSQHC 2018.
- Zayegh I, Charrois TL, Hughes J et al. Antibiotic repeat prescriptions: are patients not refilling them properly? *J Pharm Policy Pract.* 2014;7(1):17.
- Fredericks I, Hollingworth S, Pudmenzky A, et al. 'Repeat' prescriptions and antibiotic resistance: findings from Australian community pharmacy. *Int J Pharm Pract.* 2017;25(1):50-58.
- Essack S, Bell J, Shephard A. Community pharmacists- Leaders for antibiotic stewardship in respiratory tract infection. *Journal of Clinical Pharmacy and Therapeutics.* 2018 Apr 1;43(2):302-7.

4.

- Martin P, Tamblyn R, Benedetti A, et al. Effect of a pharmacist-led education intervention on inappropriate medication prescriptions in older adults: the D-PRESCRIBE randomised clinical trial. *JAMA* 2018; 320(18):1889-1898.
- Page A, Potter K, Clifford R, et al. Deprescribing in older people. *Maturitas.* 2016;91:115-134. doi: 10.1016/j.maturitas.2016.06.006.
- Potter K, Flicker L, Page A, et al. Deprescribing in frail older people: a randomised controlled trial. *PLoS one.* 2016;11(3):e0149984. doi: 10.1371/journal.pone.0149984.
- Page AT, Clifford RM, Potter K, et al. The feasibility and the effect of deprescribing in older adults on mortality and health: A systematic review. *Br J Clin Pharmacol.* 2016;82(3):583-623. doi: 10.1111/bcp.12975.
- Page AT, Clifford R, Potter K, et al. A concept analysis of deprescribing medications in older people. *Journal of Pharmacy Practice and Research.* 2018;48(2):132-148 doi: 10.1002/jppr.1361.
- Potter K, Page A, Clifford R, et al. Deprescribing: A guide for medication reviews. *Journal of Pharmacy Practice and Research.* 2016;46(4): 358-367 doi: 10.1002/jppr.1298.
- Scott IA, Anderson K, Freeman CR, et al. First do no harm: a real need to deprescribe in older patients. *Med J Aust* 2014;201(7):390-2.
- Reeve E, Thompson W, Farrell B. Deprescribing: A narrative review of the evidence and practical recommendations for recognizing opportunities and taking action. *European Journal of Internal medicines.* 2017 Mar 1;39 (supplement): 3-11.

SUPPORTING EVIDENCE

5.

Díaz-Gutiérrez MJ, Martínez-Cengotitabengoa M, Sáez de Adana E, et al. Relationship between the use of benzodiazepines and falls in older adults: A systematic review. *Maturitas*. 2017;101:17-22.

Yu NW, Chen PJ, Tsai HJ, et al. Association of benzodiazepine and Z-drug use with the risk of hospitalisation for fall-related injuries among older people: a nationwide nested case-control study in Taiwan. *BMC Geriatr*. 2017;17:140.

Declercq T, Petrovic M, Azermai M, et al. Withdrawal versus continuation of chronic antipsychotic drugs for behavioural and psychological symptoms in older people with dementia. *Cochrane Database Syst Rev* 2013;(3):CD007726.

Ma H, Huang Y, Cong Z, et al. The efficacy and safety of atypical antipsychotics for the treatment of dementia: a meta-analysis of randomized placebo-controlled trials. *J Alzheimers Dis* 2014;42(3):915-37.

Richter T, Meyer G, Mohler R, et al. Psychosocial interventions for reducing antipsychotic medication in care home residents. *Cochrane Database Syst Rev* 2012;(12):CD008634.

Westbury JL, Gee P, Ling T, et al. RedUSE: reducing antipsychotic and benzodiazepine prescribing in residential aged care facilities. *Med J Aust* 2018; 208(9):398-403. || doi: 10.5694/mja17.00857.

Alessi C, Vitello M. Insomnia (primary) in older people: non-drug treatments. *BMJ Clin Evid*. 2015;2302.

Sawan M, Jeon Y, Chen T. Psychotropic medicines use in residents and culture: influencing clinical excellence (PRACTICE) tool. A development and content validation study. *Research in Social and Administrative Pharmacy*. 2018 <https://doi.org/10.1016/j.sapharm.2018.08.015>.

6.

Pharmaceutical Society of Australia (2012). Australian pharmaceutical formulary and handbook: the everyday guide to pharmacy practice (22nd ed). Pharmaceutical Society of Australia, Deakin West, ACT.

Pharmacy Board Guidelines on Practice Specific Issues: 5. Complementary and alternative medicines. <https://www.pharmacyboard.gov.au/codes-guidelines.aspx>.

Cochrane collaboration – Systematic reviews. <https://www.cochrane.org/> Some example are:

Abdelhamid AS, Brown TJ, Brainard JS, et al. Omega-3 fatty acids for the primary and secondary prevention of cardiovascular disease. *Cochrane Database of Systematic Reviews* 2018, Issue 7. Art. No.: CD003177. DOI: 10.1002/14651858.CD003177.pub3.

Flowers N, Hartley L, Todkill D, et al. Co-enzyme Q10 supplementation for the primary prevention of cardiovascular disease. *Cochrane Database of Systematic Reviews* 2014, Issue 12. Art. No.: CD010405. DOI: 10.1002/14651858.CD010405.pub2.

Geng J, Dong J, Ni H, et al. Ginseng for cognition. *Cochrane Database of Systematic Reviews* 2010, Issue 12. Art. No.: CD007769. DOI: 10.1002/14651858.CD007769.pub2.

Braun LA, Tiralongo E, Wilkinson JM, et al. Perceptions, use and attitudes of pharmacy customers on complementary medicines and pharmacy practice. *BMC Complement Altern med*. 2010 Jul 20;10(1):1-7.

Popattia AS, Winch S, Caze AL. Ethical responsibilities of pharmacists when selling complementary medicines: a systematic review. *International Journal of Pharmacy Practice*. 2018 Apr 1;26(2):93-103.

Ung COL, Harnett J, Hu H. Community pharmacist's responsibilities with regards to traditional medicine/complementary medicine products: A systematic literature review. *Research in Social and Administrative Pharmacy*. 2017 Jul 1;13(4):686-716.

HOW THIS LIST WAS MADE

A working party of members of the Pharmaceutical Society of Australia (PSA) was established. Members of the State and Territory Branch Committees were invited to contribute suggested recommendations. Over 40 recommendations were submitted. The working party grouped the recommendations into themes, eliminated ones that were out of scope, reduced the list to twelve and refined the wording. All PSA members were sent an online survey to rank the proposed recommendations, indicate how likely they would be to implement the recommendations in practice, and suggest additional items for consideration.

Based on the survey responses, six recommendations were shortlisted and supporting evidence gathered. The final list was signed off by the PSA Board in November 2018.

Note: PSA uses Vancouver reference style. Where there are more than three authors, only the first three are listed followed by et al.

Current as at: December 2018

About Choosing Wisely Australia

Choosing Wisely Australia® is enabling clinicians, consumers and healthcare stakeholders to start important conversations about tests, treatments and procedures where evidence shows they provide no benefit and in some cases, lead to harm. This initiative is being led by Australia's medical colleges, societies and associations and is facilitated by NPS MedicineWise.

About the Pharmaceutical Society of Australia

PSA is the only Australian Government-recognised peak national professional pharmacy organisation representing all of Australia's 31,000 pharmacists working in all sectors and across all locations.

PSA is committed to improving Australia's health through excellence in pharmacist care. PSA believes the expertise of pharmacists can be better utilised to address the health care needs of all Australians.

PSA works to identify, unlock and advance opportunities for pharmacists to realise their full potential, to be appropriately recognised and fairly remunerated.

PSA has a strong and engaged membership base that provides high-quality health care and are the custodians for safe and effective medicine use for the Australian community.

PSA leads and supports innovative and evidence-based healthcare service delivery by pharmacists. PSA provides high-quality practitioner development and practice support to pharmacists and is the custodian of the professional practice standards and guidelines to ensure quality and integrity in the practice of pharmacy.

About NPS MedicineWise

Independent, not-for-profit and evidence-based, NPS MedicineWise enables better decisions about medicines, medical tests and other health technologies. Visit nps.org.au



Reasonable care is taken to provide accurate information at the time of creation. This information is not intended as a substitute for medical advice and should not be exclusively relied on to manage or diagnose a medical condition. Choosing Wisely Australia® disclaims all liability (including for negligence) for any loss, damage or injury resulting from reliance on or use of this information. Read the full disclaimer at choosingwisely.org.au
