Deprescribing: When Less Is More

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The Polypharmacy Problem

Polypharmacy (i.e., the regular use of five or more medications) is a growing medical burden, especially in the geriatric population. A national population-based cohort study showed that older adults were increasingly taking more medications, with 35.8% using at least five prescription medications in 2010-2011, compared with 30.6% in 2005-2006 ($p = 0.02$).[1] Polypharmacy is associated with poor adherence; increased risk of drug interactions and adverse drug events; falls; ED visits and hospitalization; poor quality of life; and high costs.

Multiple factors have been identified that contribute to polypharmacy: including –

- Increasing prevalence of chronic diseases due to longer life expectancy,
- Fragmentation health system
- Prescribing cascade where an adverse reaction to a current medication is misinterpreted as a new disease and a new medication is initiated

One simple strategy to prevent negative consequences of polypharmacy of older adults is by conducting comprehensive medication review and discontinuing inappropriate or harmful medications.

Deprescribing

Deprescribing is the systematic process of reducing or discontinuing a medication. It could be considered where there is polypharmacy, a serious adverse effect occurred, the treatment risks outweigh the benefits or goals of care have changed. Deprescribing is not denying appropriate treatment to patients. It is a positive, patient-centered intervention with the goals of ensuring safe and appropriate medication use, reducing risk of adverse effects and improving quality of life.

Multiple studies have demonstrated that deprescribing can be done safely in eligible patients. For example, one retrospective, propensity score-matched cohort study looked at deprescribing certain diabetes medications in older patients with well-controlled type 2 diabetes. Compared to the usual care group, the deprescribing group had significantly lower incidence of hypoglycemia (1.6% vs 3.5%, p =0.01) and lower mortality rate (6.0% vs 10.8%, $p < 0.01$).[2] There was no difference in the incidence of hyperglycemia or proportion of patients at A1C goal.[2]

Drug Classes to Consider for Deprescribing

Proton pump inhibitors (PPI). PPIs are among the most frequently prescribed medications that are perceived to be effective and generally safe. Unfortunately, PPIs are often overprescribed in both ambulatory care and inpatient settings. One retrospective medical record review of 946 patients found that 36.1% received PPI therapy without documented valid indications.[3] Overuse of PPIs occurs in hospitalized patients where it is initiated for stress ulcer prophylaxis but never taken off patient medication list before discharge. While short-term use of PPI combines high efficacy and low toxicity, chronic therapy is associated with increased risk of pneumonia, Clostridioides difficile and fractures.

Benzodiazepines/ Z-drugs. Benzodiazepines and the Z-drugs (e.g., zolpidem, eszopiclone, zaleplon) are useful as short-term treatment for insomnia, but they are often prescribed for long-term use, which can be harmful and often not beneficial in older adults. Potential adverse events include falls, fractures, cognitive impairment and motor vehicle accidents. A Canadian evidence-based guideline recommends slow taper with close monitoring (i.e. monitor withdrawal symptoms every 1-2 weeks during tapering) and focus on behavioral management for sleep.[4] About 60-80% of patients can be successfully tapered off of these drugs as a result of a patient-centered deprescribing intervention.[4]

Other frequently prescribed drug classes that are associated with inappropriate use and increased risk in older adults include **muscle relaxants** (dizziness, anticholinergic), **tricyclic antidepressants** (anticholinergic, orthostatic hypotension), **SSRIs** (fracture), **antipsychotics** for behavioral management (cognitive impairment, death) and **opioids** for chronic nonmalignant pain (unintentional overdose, addiction).

Deprescribing Plan

Unfortunately, there is limited clinical evidence to guide deprescribing. Two general principles —slow tapering and close monitoring — apply in most situations with long-term treatments. For example, a possible tapering schedule for benzodiazepines is 25% dose reduction every 2 weeks, and then 12.5% dose reduction near end with or without drug-free days.[4] For PPI tapering, either halving the dose or using it on-demand is recommended.[6] Always work with your patients to develop an individualized weaning plan.

Patient Attitude

Providers considering incorporating deprescribing into their care process might be worried about facing resistance from patients or losing patient-provider relationship. A 2018 national population-based study of Medicare beneficiaries showed that 92% reported being willing to stop one or more regular medications if their doctor said it was possible.[5] 66.6% reported hoping to reduce the number of medications they were taking.[5] Therefore, providers should be reassured that most patients are open to deprescribing. Providers should be proactive in discussing deprescribing intervention with patients using shared decision-making.

Additional Resources

- Utilize resources such as the 2019 American Geriatrics Society Updated Beers Criteria® and STOPP/START Criteria to think about where to start with deprescribing
- Deprescribing resources for select drug classes: deprescribing.org/resources/deprescribing-guidelines-algorithms.

References

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