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ELDER CARE

A Resource for Interprofessional Providers

Decreasing Polypharmacy: The Art of Deprescribing

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Prevalence and Risks of Polypharmacy

Polypharmacy is variably defined as taking four or five (or more) prescription drugs. Almost 50% of adults age 65 or older take five or more prescription drugs. Polypharmacy is more prevalent among whites than among minority groups, possibly related to greater access to care. But, it is also prevalent among African Americans, often related to receiving care from multiple clinicians. In addition, polypharmacy is more common among women than men, and in the southern US.

The number of prescribed drugs is a key predictor of adverse drug events (ADEs), and older adults taking multiple prescription drugs are twice as likely to be hospitalized for ADEs than younger adults. Of note, a national surveillance study found that just six individual medication classes accounted for 80% of emergency room visits for ADEs (Table 1). Interestingly, most of those medication classes are not included on the Beers List of drugs that are potentially inappropriate for older adults.

1. Anticoagulants	4. Antibiotics
2. Diabetes Drugs	5. Opioid Analgesics
3. Antiplatelet Drugs	6. Cancer Drugs
Listed in Order of Frequency (Data from Shehab, et al, 2016)	

The risk of ADEs, particularly in older adults, highlights the need for discontinuing medications whenever clinically appropriate, a process known as “deprescribing.” While many clinicians may be willing to adopt the principles of deprescribing, limited guidance exists as to how to systematically approach this practice. Providing such guidance is the goal of this Elder Care.

Deprescribing

The process of deprescribing is defined as the systematic

identification and discontinuation of drugs for which the risks outweigh the benefits, as well as reasons such as changes in a patient’s goals, life expectancy, or level of function.

The Screening Tool of Older People’s Prescriptions (STOPP) was developed by an international panel of experts to aid in identifying inappropriate prescriptions that can be considered for discontinuation. STOPP was revised in 2015 (see resource list) and now consists of 114 criteria used by prescribers, pharmacists, and researchers. The STOPP criteria, when applied at time of hospital discharge, have been shown to reduce future ADEs.

Resources available at deprescribing.org and in the “Deprescribing Protocol” are other helpful approaches. The Deprescribing Protocol consists of five key steps.

Step 1 involves making a comprehensive list of all medications a patient is taking, including prescription medications, over-the-counter medications, and supplements, along with the indications for each. It is important to assess patient adherence to medications and explore reasons for non-adherence when this is detected.

Step 2 involves assessing the potential for harm to the patient, based on the drugs being taken, along with individual patient factors. This requires a detailed examination of a patient’s medication list. How many medications is the patient taking? Are any of those medications commonly associated with ADEs? Are there drug-drug interactions between the patient’s medications?

Step 3 consists of an individual assessment of each drug and a consideration as to whether or not it is eligible for discontinuation. Some key questions to be asked as part of this step include: Do the risks of the medication outweigh its benefits? Is the indication for which it was initially prescribed still relevant? Does the patient prefer to prioritize any life-conferring benefit the medication may have over potentially serious or life-threatening ADEs?

TIPS ABOUT RESILIENCE IN OLDER ADULTS

- Evaluate the medication lists of patients taking more than 4 or 5 medications to see if any of those medications might be candidates for discontinuation.
- Use the STOPP criteria to avoid prescribing medications that pose significant risk of adverse drug events for older adults, and as an aid to decisions about deprescribing those medications.
- Use the 5-step Deprescribing Protocol (Table 2) and resources available at deprescribing.org as systematic ways to approach the process of deprescribing.

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Step 4 involves having clinicians prioritize the patient's drugs for discontinuation, in order of greatest potential harm and/or least benefit. Medications with minimal withdrawal effects, in addition to those the patient has an interest in discontinuing, should be prioritized as well.

Step 5, the final step, consists of the implementation phase. As medications are discontinued, patients should be monitored for any adverse effects or disease exacerbations. Medications with a high risk of withdrawal or discontinuation side-effects should be tapered. The likelihood of withdrawal or discontinuation side-effects depends on various factors, such as half-life of the medication, dose, and duration of use. These factors will help determine an appropriate medication taper.

A sample tapering regimen involves decreasing the dose by 1/4 to 1/2 every 1-2 weeks. If withdrawal symptoms occur with that regimen, decreases might need to be every 3 weeks. When at the lowest dose, start giving the medication every other day and monitor the patient on drug-free days. Then reduce dosing to every 3 days before stopping. If withdrawal symptoms occur, increase the dose back to the previously stable dose, then taper down more slowly (lengthen the time between dose changes).

Responsible Prescribing

It is important to remember that the process of deprescribing lies at the end of a continuum of responsible

prescribing. The continuum begins when a medication is first prescribed. When initiating medications, clinicians should consider if the medication is needed in the first place. In many cases, medications that are indicated for older adults are not prescribed, such as anticoagulants for stroke prevention in atrial fibrillation. But for all medications, consider whether the medication's benefits outweigh potential risks. Are there non-drug approaches that should be considered, such as diet, exercise, counseling, physical therapy, or stress reduction techniques?

Given the increased risk of ADEs in older adults, additional attention should be given to the side-effect profile of prescribed medications. ADEs are of particular concern for medications that require hepatic metabolism or renal clearance, because of the decrease in first-pass hepatic metabolism and reduced renal function that occur as patients age. Dosing should always be adjusted for the patient's creatinine clearance levels. In addition, patients should actively participate in decisions about their medications, and clinicians should consider patients' goals when developing a treatment plan.

Barriers to Deprescribing

While the 5-step process outlines a protocol developed by an expert panel, there are nonetheless barriers to deprescribing. The most common barriers, along with possible ways to address them, are outlined in Table 2.

Table 2. Potential Barriers to Deprescribing and How to Address Them

Barriers	Potential Response or Intervention
Sociocultural expectation of there being a pill for every health problem	Explain to patient about effective non-drug interventions for their health problems, like diet, exercise, physical therapy, and environmental modifications. Discuss risk of ADEs.
Reluctance of patients (and/or clinicians) to stop a drug on which patient has been stable for years	Review indication for the medication and current relevance of that particular indication. Consider/explain increased risk of ADEs with age due to decreased renal function, hepatic clearance, and increased permeability of blood-brain barrier.
Clinician fear of accountability for adverse event related to stopping a medication	Have a detailed discussion with patient and caregiver about risks and benefits of cessation. The decision to stop a medication should be a joint one, and the conversation should be clearly documented. Involve specialists and pharmacists as appropriate.
Limited time and competing demands in a busy practice	Set aside a 'special' clinic visit to discuss the possibility of deprescribing. Consider sending a letter to patients to encourage scheduling of such a visit.
Lack of training in deprescribing	Invite practitioners and pharmacists with experience in deprescribing to give training sessions.

References and Resources

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Interprofessional care improves the outcomes of older adults with complex health problems.

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