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Moving Deprescribing Upstream

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It is increasingly recognized that many adults take a large number of medications (e.g., five or more) or unnecessary or potentially inappropriate medications, known as polypharmacy. Taking numerous medications is burdensome to patients and has been associated with an increased risk of cognitive decline, injurious falls, and premature death.

Several policy solutions exist to address polypharmacy, but their effects have fallen short. Medicare currently provides patients who meet specific criteria access to an annual Medication Therapy Management review, a type of comprehensive medication review (CMR), where a healthcare professional, such as a community-based pharmacist, reviews all of the medications with the patient and makes recommendations to the patient and other members of the healthcare team to optimize medication use. However, there are significant barriers to effective implementation of this approach, including lack of awareness of the program, limited patient eligibility, and community pharmacists' lack of access to electronic health records (EHRs), which limits their ability to conduct a complete medication review.^{1,2} In addition, identifying deprescribing opportunities may not be a focus for the individual conducting the CMR. Other policies such as quality metrics aimed at improving medication reconciliation as part of the Merit-based Incentive Payment System may be important for moving toward an annual review but may not go far enough in ensuring the appropriateness of these medications is actively discussed.

To prevent and address polypharmacy, we recommend a two-pronged approach to incorporating deprescribing concepts through the medication management process: first, discussing the need for an ongoing re-evaluation of medications at the point of initial prescribing and, second, reinforcing

opportunities for deprescribing during annual medication reviews. From our clinical experience, introducing the concept of an annual medication review when the medication is initially prescribed and regularly conducting this re-evaluation can set the stage for deprescribing down the road while also increasing medication adherence and enhancing the therapeutic relationship between patients and healthcare professionals.

Naturally, the best way to minimize problematic medication use is to be judicious in prescribing medications in the first place. But, once the decision to prescribe has been made, healthcare professionals should set the expectation with patients about the likely duration of medication therapy. It may be helpful to consider whether the therapy will be short-term (e.g., a few weeks for a proton pump inhibitor [PPI] for gastroesophageal reflux disease), medium-term (e.g., several months for dual antiplatelet therapy following percutaneous coronary intervention), or long-term (e.g., multiple years to manage diabetes). While it may not be possible to predict the exact time frame, providing general guidance to patients can help to lay the foundation for future conversations about deprescribing. Additionally, these initial discussions can allow patients and healthcare professionals to consider issues impeding medication adherence (e.g., cost, side effects) and safety (e.g., combining medications with alcohol or other sedatives). Furthermore, these conversations provide an opportunity for healthcare professionals to recommend non-pharmacologic lifestyle interventions (e.g., deprescribing may be possible for a glucose-lowering medication with a modest amount of weight loss).

Second, an annual person-centered medication review³ during a CMR, an annual wellness visit, or a more targeted medication-focused post-hospitalization visit can provide an opportunity for healthcare professionals to work with patients to evaluate the necessity of continued medication use. When the course of treatment exceeds initial expectations, healthcare professionals should collaborate with patients to refine treatment goals and a timeline to follow-up. In addition, steps should be taken to empower patients to initiate conversations about medication re-evaluation with their primary care provider (PCP). Defining a plan and activating patients may help to overcome the prescribing inertia that has been observed when medications often intended for short-term use (e.g., benzodiazepines, PPIs) are continued on a long-term basis.

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Third, during annual medication reviews, healthcare professionals should elicit patients' lived experiences with medications. A 2016 meta-synthesis of patients' experiences with medication-related burden found that patients often feel as though healthcare professionals pay little attention to their lived experiences.⁴ Medications can make people feel drowsy, nauseous, or dizzy, impeding their ability to work or spend time on meaningful activities.⁶ While patients desire to be engaged in making decisions about their medications, they often feel as though they are not adequately informed or involved. Moreover, negative experiences while attempting to stop a medication (e.g., experiencing significant withdrawal effects) can also significantly decrease the willingness of patients to attempt to deprescribe medications in the future.⁵ Taking the time to discuss patients' medication-related experiences, including potential barriers to adherence (e.g., cost of medications, transport issues obtaining medications, stigma around medications such as psychotropics), may strengthen the provider-patient therapeutic relationship. This aligns with existing literature demonstrating a positive association between physicians displaying effective communication skills and improved treatment adherence.⁶

Fourth, healthcare professionals often inherit patients who were prescribed medications long ago, and patients may have been told that the medications should be taken "for life." Transitions such as establishing care or experiencing a major health event (e.g., a fall or hospitalization) can provide an opening to re-evaluate medications and obtain patient buy-in about removing potentially unnecessary or harmful medications. The language used in framing these conversations is critical, as it is important that patients do not feel abandoned or that medications are being withdrawn without their input. Continually redefining goals of care and reiterating that deprescribing will be closely monitored and supported can reassure patients and their families.⁷ The development and adoption of structural supports such as patient-facing posters and brochures in exam rooms or mailed home can encourage patients to ask questions. Easy-to-use documentation templates for healthcare professionals may facilitate deprescribing within current clinical practice.

To be sure, having medication management conversations with patients can be challenging to incorporate in clinical practice. These conversations are even more complex when patients are prescribed medications by multiple healthcare professionals. While primary care providers may need to reach out to specialists to coordinate the treatment plan, there may also be benefits to empowering patients to raise deprescribing with the other members of their healthcare team. An additional barrier is that some patients may take the idea of potentially not needing medication in the future as a reason not to take it now, resulting in nonadherence. More research is needed to explore specific language that promotes medication adherence while simultaneously introducing the idea of regularly re-evaluating medications and deprescribing when the benefits no longer outweigh the risks. Furthermore, medication reviews for patients experiencing complex polypharmacy may require several visits,

starting with those medications with the highest risk-benefit ratios or aligning with the conditions related to the current visit. Utilizing information gathered during CMRs, telemedicine visits, and collaboration with pharmacists embedded in primary care practices, when available, may help to increase the feasibility of these conversations. Finally, improvements in interoperability across healthcare systems and pharmacies will help healthcare professionals move closer to constructing a "best possible" medication list for use during deprescribing conversations.

In summary, polypharmacy is a significant public health problem that will likely continue to grow as the population ages and new medications continue to be approved. To ensure that medications are indicated, safe, and effective, periodically re-evaluating medications after they are initially prescribed and subsequently conducting patient-centered annual medication reviews has the potential to both improve adherence to important medications and reduce harmful polypharmacy.

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REFERENCES

1. Coe AB, Bynum JPW, Farris KB. Comprehensive medication review: new poll indicates interest but low receipt among older adults. *JAMA Health Forum*. 2020;1(10):e201243-e201243.
2. Snyder ME, Jaynes HA, Gernant SA, et al. Factors associated with comprehensive medication review completion rates: a national survey of community pharmacists. *Research in Social and Administrative Pharmacy*. 2020;16(5):673-680.
3. Clark CM, LaValley SA, Singh R, Mustafa E, Monte SV, Wahler RG. A pharmacist-led pilot program to facilitate deprescribing in a primary care clinic. *Journal of the American Pharmacists Association*. 2020;60(1):105-111.
4. 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;6(2):e010035.
5. Rozsnyai Z, Jungo KT, Reeve E, et al. What do older adults with multimorbidity and polypharmacy think about deprescribing? The LESS study—a primary care-based survey. *BMC geriatrics*. 2020;20(1):1-11.
6. Zolnierok KBH, DiMatteo MR. Physician communication and patient adherence to treatment: a meta-analysis. *Medical care*. 2009;47(8):826.
7. Frank C, Weir E. Deprescribing for older patients. *Canadian Medical Association Journal*. 2014;186(18):1369.

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