Deprescribing: A Tool for Cost Reduction and Improved Outcomes?

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EVERY DAY THERE ARE MORE NEWS headlines about policymakers addressing different approaches to lowering healthcare and prescription drug costs. That has certainly been true with the forthcoming elections and the discussions that have been occurring with regard to healthcare, including the pandemic.

Last year's approval of the gene therapy ZOLGENSMA (onasemnogene abeparvovec-xioi), a one-time treatment for spinal muscular atrophy (SMA) affecting about 1 in 11,000 babies, drew headlines with its pricing set at $2.1 million, making it the most costly drug on the market. The first approved gene therapy, LUXTURNA (voretigene neparvovec-rzyl), to treat vision loss from biallelic RPE65 mutation-associated retinal dystrophy affecting 1 in 2,000 people in the United States, is set at $425,000 per eye. Not including cord blood, there are now 9 FDA-approved gene therapies, and the FDA expects many more to come in the near future. The agency is actively preparing a technology infrastructure to support this influx. More to come on that in a future column.

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The therapeutics market is rapidly changing with the introduction of these kind of cutting-edge, high-end therapies for a limited number of patients, compared to widespread, generally available therapies for people suffering from a number of chronic diseases. I have spoken at past ASAP (American Society for Automation in Pharmacy) conferences about medical miracles and "gee whiz" therapies. These new therapies, along with the medication trends I wrote about in last month's column, made me ask the question: Could deprescribing be a tool that could address lowering healthcare and prescription drug costs if more widely used?

Deprescribing is the planned process of reducing or stopping medications that may no longer be of benefit to the patient or may be causing harm. The goal is to reduce medication burden or harm while improving quality of life. The practice of deprescribing often targets patients with multiple chronic conditions, who are elderly, or who have a limited life expectancy. In these situations, medications may contribute to an increased risk of adverse events, and people may benefit from a reduction in their medication burden.

The process can be difficult, whether in clinical medicine or health policy. In a 2017 commentary, physicians described deprescribing as "swimming against the tide" of patient expectations, the medical culture of prescribing, and organizational constraints (see https://www.annfammed.org/content/15/4/341.full).

Deprescribing has been shown to result in fewer medications with no significant changes in health outcomes (see https://pubmed.ncbi.nlm.nih.gov/26942907/). A systematic review of deprescribing studies for a wide range of medications, including diuretics, blood pressure medication, sedatives, antidepressants, benzodiazepines, and nitrates, concluded that adverse effects of deprescribing were rare (see

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https://jamanetwork.com/journals/jamainternalmedicine/fullarticle/226051).

POTENTIAL BENEFITS OF DEPRESCRIBING

A 2019 study among cancer patients showed that a lack of deprescribing resulted in many being prescribed preventive medications at the end of their lives that may harm their quality of life while providing questionable clinical benefits (see https://pubmed.ncbi.nlm.nih.gov/30906987/). The study showed that the median drug costs during the last year of life were $1,482 per individual, including $213 for preventive therapies. Approximately one-fifth of the total costs of prescribed drugs were for preventive medicines. This proportion only decreased slightly as death approached.

A physician in practice who takes time during his or her busy day to examine a patient's medications or enlist the pharmacist to provide a comprehensive medication review as part of the deprescribing toolkit can make a difference in patient outcomes and costs. A number of tools have been developed to support the deprescribing process, including those from the Bruyère Research Institute at https://deprescribing.org/resources/deprescribing-guidelines-algorithms/.

See the most common deprescribing algorithm in the box at top right

The process is remarkably similar to the IESA process, which stands for indication, effectiveness, safety, and adherence. That process is part of the "Patient Care Process for Delivering Comprehensive Medication Management" (see https://www.accp.com/docs/positions/misc/CMM_Care_Process.pdf).

MOST COMMON DEPRESCRIBING ALGORITHM

This algorithm has been validated and tested in two randomized controlled trials (see https://pubmed.ncbi.nlm.nih.gov/26942907/).
The algorithm prompts clinicians to consider:

- Whether a medication is an inappropriate prescription.
- If adverse effects or interactions outweigh symptomatic effect or potential future benefits.
- If it's taken for symptom relief but the symptoms have stabilized.
- Whether it is intended to prevent serious future events, but limited life expectancy may temper potential benefit.

If the answer to any of the four prompts is yes, then the medication should be considered for deprescribing.

For more information visit https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4778763/figure/pone.0149984.g001/.

The Comprehensive Medication Management Research Team notes in this guidance that, "The integration of clinical services focused on optimizing medication use into patient care may help primary care providers, specialists, and other members of the health care team meet the quadruple aims of improving population health, increasing patient satisfaction, reducing per-capita health care costs, and addressing provider satisfaction. Comprehensive medication management (CMM) holds promise as a key strategy for meeting these goals."

While conducting CMM for patients can provide key benefits, how that is done in a busy outpatient/community pharmacy environment can vary with different infrastructure setups and team roles. As a front-line practitioner, I began to think if there might be additional information or tools that could be added to my suite of drug information tools/monographs from my pharmacy system providers that would indicate evidence for deprescribing in certain populations. Such tools or data could help me make a decision through the regular workflow DUR (drug utilization review) process to make medication recommendations to the patient's physician or refer the patient to the appropriate pharmacist in my organization for a CMM. Having access to quick, reliable, evidence-based information might help me become a more frequent contributor to the deprescribing process with the potential to lower costs and improve outcomes. **CT**

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