

FAST FACTS AND CONCEPTS #321 DEPRESCRIBING

Jennifer Pruskowski, PharmD

Deprescribing is the systematic process of discontinuing medications used for the management of chronic illness as patients' survival time decreases. This *Fast Fact* will examine the barriers to deprescribing and describe a possible implementation model. See *Fast Facts* # 236, 258, 278, and 322 for more specific guidance on deprescribing anticoagulants, insulin, and HMG-CoA reductase inhibitors (statins).

Potentially Inappropriate Medications at the End of Life There are many evidence-based guidelines for the initiation of pharmacologic therapy, however few address discontinuation. This unbalance, along with other barriers described below, often leaves patients on an abundance of medications near the end-of-life. Research has suggested the use of preventive medications such as aspirin, anti-hypertensives, and statins ranges between 29-51% in patients with a limited life expectancy, even though the time-frame of likely benefit for these medications may be far longer than a patient's expected survival (1,2). If the preventative medication is not related to the hospice diagnosis, hospice patients may have to pay for it out of pocket to continue. Often symptom-based medications are added to the end of life care plan (3). Beyond this, many patients also may be taking vitamins, herbals or other supplements. Consequently, pill-burden can lead to unnecessary adverse drug reactions and cost at the end of life.

Deprescribing involves a systematic clinical approach to identifying and discontinuing drugs for which the harms outweigh benefits within the context of an individual patient's care goals, level of functioning, and life expectancy (4). Deprescribing should be considered in any patient with a life-limiting illness (e.g. any patient for whom clinicians would not be surprised if he or she died in a year) especially when an adverse drug effect is suspected (5). Specific medications that should be considered for deprescribing include: aspirin, anticoagulants, anti-hypertensives, statins, and anti-diabetic medications (6,7). In addition, clinicians should review over-the-counter medications, vitamins, herbals, and supplements with patients to determine if they still have ongoing role in their care.

Barriers to Deprescribing A patient's psychological attachment to a chronic medication can be a major barrier to deprescribing, especially when a patient may associate the preventative medication as necessary for their long-term health (8). Indeed, communication challenges may ensue if a clinician presents an isolated recommendation to discontinue a chronic medication in the absence of the larger context about their overall health. In such cases, patients or their families may not be aware that an anticipated short prognosis is an impetus for deprescribing. Therefore, the most effective discussions about deprescribing should be part of a larger conversation clarifying estimated prognosis and goals of care. See *Fast Facts* #183, 184, 223, 224, and 227 on how to utilize prognosis in shared decision-making. Other potential barriers to deprescribing include:

- Identification of the appropriate patient population;
- Clinician litigation fears regarding a bad clinical outcome status post deprescribing;
- Identifying which clinician (e.g. physician, pharmacist) will take ownership for the deprescribing;
- Risk of adverse withdrawal events (9-12).

Deprescribing Framework The Holmes' model can act as a useful framework for deprescribing in patients with a reduced life expectancy (13). In this model, there are four factors to consider. The two patient-specific factors are goals of care and prognosis. The two medication specific factors include treatment target and time-until-benefit. Treatment target refers to the medication's prevention strategy goal (11). For example, is the medicine being utilized to reduce the chances of the illness occurring before it happens – *primary prevention*? Or is the medication being utilized to slow down the progression of illness – *secondary prevention*. In general, primary prevention medications are good candidates for deprescribing in patients whom clinicians would not be surprised if death occurred in less than a year. Time-until-benefit for a medication refers to the amount of time a medication requires to gain a beneficial result and often is indirectly referred to as the number needed to treat (NNT) (14). In most cases, as prognosis decreases, the NNT increases (11).

Deprescribing Process (4)

1. Utilize a pharmacist if available to perform a complete medication reconciliation with focus on the respective indications.
2. Consider the patient's goals, prognosis, and risk of drug-induced harm. Additional risk factors for drug induced harm include the patient's age and total number of medications.
3. Assess each medication's risk/benefit ratio, with attention to treatment target and time-until-benefit.
4. Discontinue medication(s) based on priority.
5. Monitor for potential adverse drug withdrawal events.

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Author's Affiliation: University of Pittsburgh Medical Center

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