Dismantling the Prescription Cascade

Christine Kilgore

ORLANDO, FL — More must be done in post-acute and long-term care to "resist and dismantle the prescription cascade" that occurs when side effects of medications are treated by prescribing additional drugs rather than lowering doses or even discontinuing the originally prescribed drugs, Barbara J. Messinger-Rapport, MD, CMD, said at the AMDA – The Society for Post-Acute and Long-Term Care Medicine's Annual Conference.

Dr. Messinger-Rapport was one of several speakers who implored physicians and other providers throughout the meeting to both prescribe thoughtfully and to more actively deprescribe in order to improve residents' quality life of life. "We need to consider [that] symptoms [may be] drug effects, and consider lowering a dose before adding another drug," she said. For instance, rather than adding furosemide to treat edema in a patient taking amlodipine, or adding tolterodine to treat urinary incontinence in this patient, "consider lowering the dose of [amlodipine]," she said. Both edema and urinary incontinence are side effects of the medication.

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And rather than adding mirtazapine to treat anorexia or weight loss in a patient taking either metformin or a cholinesterase inhibitor like donepezil, "consider lowering the dose or withdrawing one of the [original] drugs," said Dr. Messinger-Rapport, chief medical officer at Hospice of the Western Reserve, Cleveland, OH.

Chronic conditions entail medications — each clinical guideline for a chronic condition has care pathways leading to at least one drug, she noted — but not all medications are appropriate or effective for the long-term, especially for the elderly and those with a limited life expectancy. Drugs that once seemed appropriate may at some point become unnecessary and even harmful given a resident's age, decline in renal function, comorbidities, or patient-centered goals.

"If a resident has hypertension, for instance, (ask yourself) what target blood pressure are you really interested in, and why?" Dr. Messinger-Rapport said. With respect to dementia, "what stage is your patient, what are your anticipated benefits of drug treatment, and is the list of adverse effects greater than the list of benefits? And for diabetes, is it necessary to have [a resident] on multiple medications to get a 6.5% HbA1c, or it is possible to lower doses or eliminate some of the drugs?"

Deprescribe and Reassess

Deprescribing is not a one-time action, she emphasized. The potential for drug discontinuations should be reassessed periodically in LTC settings — ideally along with consultant pharmacists — and patients should be monitored carefully for adverse effects or worsening of disease when drugs are tapered or withdrawn.

The barriers to deprescription are not insignificant. Providers may not feel empowered to discontinue medications that another practitioner started, for instance, and "patients' families are often very attached to these drugs," Dr. Messinger-Rapport said.

"Frankly, I think that a prescription cascade is something we see in our own facility," she said. The number of studies reporting significant deprescribing outcomes such as decreased mortality and improved quality of life are small, but "deprescription is now in the literature, and it's growing exponentially," she said, adding that "it's even in Wikipedia."

Support in the Literature

A seminal study on deprescribing, the Dementia Antipsychotic Withdrawal Trial (DART-AD), published in 2009, showed that, at 1 to 3 years of follow-up, patients who had their medications withdrawn at baseline had significantly lower mortality than those who continued treatment (*Lancet Neurol* 2009;8:151–7).

The findings suggest that "if you're treating someone [who has] delirium in the last few weeks to month of life, you're not looking at a problem in terms of mortality, but if [your patient] has behavioral and psychiatric symptoms of dementia [BPSD] and their life expectancy is 1, 2, or 3 years, then you're probably doing them a disservice by keeping them on the antipsychotic," Dr. Messinger-Rapport said, noting that "very few" of the patients in the study who discontinued antipsychotics resumed their prescriptions.

Another study involved the withdrawal of common chronic disease medications in approximately 120 elderly patients in nursing homes and nursing departments based on a "geriatric-palliative" deprescribing algorithm that considers whether indications seem valid given a patient's age and disability level, whether possible adverse reactions outweigh possible benefits, whether dosing can be reduced without significant risk, and other factors (*Isr Med Assoc J* 2007;9:430–4).

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To avoid adverse events, Barbara Messinger-Rapport emphasized lowering a drug's dosage before adding another drug to a patient's regimen.

An average of 2.8 drugs per patient were discontinued, including nitrates (if no recent chest pain), H2 blockers (if no documented gastrointestinal bleed), and antihypertensives (when several had been prescribed). Compared with a control group of patients of similar age, gender and co-morbidities who did not have drugs withdrawn, the deprescription group had lower 1-year mortality (21% vs. 45%) and a lower 1-year referral rate to acute care facilities (12% vs. 30%). These are highly significant differences.

Doron Garfinkel, MD, the lead author, did a similar study a few years later of drug discontinuation in 70 community-dwelling patients with a mean age of 83, showing that successful discontinuation was achieved in 81%, and that 88% reported global improvements in health (*Arch Intern Med* 2010;170:1648–54). Patients in both studies have been using a mean of seven to eight medications.

These and other studies should "give us fuel to try to work harder" to ensure that medication regimens are as appropriate as possible, said Dr. Messinger-Rapport.

Efforts currently underway to study deprescription include work by the Australian Deprescribing Network, formed after a national workshop in 2014, and a deprescribing project in Ontario that is developing evidence-based guidelines for deprescribing proton pump inhibitors, benzodiazepines, and antipsychotics. The Ontario project, she noted, may be followed on Twitter: @deprescribing.

Christine Kilgore is a freelance writer based in Falls Church, VA.

Society Leaders

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their preferences for care. We have an obligation and an opportunity to do this," she said.

Karyn Leible, MD, RN, CMD, received the 2016 William Dodd Founder's Award, named for the Society's founder. Dr. Leible, staff physician for CHPG Church Ranch Senior Care, started her career as a nursing assistant. She went on to become a registered nurse, then completed medical school and became a physician and medical director. She is rightfully proud of her background in nursing and the insights and experiences she has gained over the years.

Dr. Leible, who served as Society president, has a clear vision of the future and a passion for serving her fellow members. She took the organization to the next level in terms of programming, advocacy, partnerships, and more. Elsewhere, she has authored numerous papers and presented programs to many audiences. An expert on quality improvement, she speaks on this and other topics at Core Curriculum programs, conferences, and webinars.

As a practitioner and clinical leader, Dr. Leible has been a passionate advocate for culture change and person-centered care. She has initiated programs to improve care and reduce the incidence of infectious diseases and antipsychotic use.

Karyn Leible has been a passionate advocate for culture change and providing person-centered care.

Accepting her award, Dr. Leible noted that she got hooked on the Society when she was a geriatrics fellow. She talked about the tremendous satisfaction and enjoyment she's received from her involvement in the Society, and urged the audience to get involved.

Senior contributing writer Joanne Kaldy is a freelance writer in Harrisburg, PA, and a communications consultant for the Society and other organizations.