



Educating & Training Health Professionals

Issue Briefs

Implementing Prescription Checkups

Raising Awareness

Improving Information

Educating & Training

Reducing Industry Influence

Key Takeaways

- Most health professionals receive insufficient training to recognize medication-related harm and deprescribe safely.
- All health professionals' education should include how to recognize medication overload; perform patient-centered prescribing; and safely pause or stop medications especially when treating older adults.
- Support from educational institutions and organizations, senior clinicians, student groups, specialty societies, state licensing boards, and accreditation councils will be crucial to implement improvements in health professionals' prescribing curricula.



The Danger of Inadequate Prescribing Education

Most Americans see the use of multiple medications as a natural part of aging, and drugs can offer patients many benefits. But each additional drug a person takes increases the risk of suffering serious, sometimes even deadly harm. Every day, 750 Americans age 65 and older are hospitalized due to a serious side effect associated with taking multiple medications. Despite the well-documented harms of medication overload, many health care professionals are not trained in how to avoid overprescribing or how to pause or stop medications.

Most health professionals are not taught to look beyond clinical guidelines, to tailor prescribing to the unique circumstances of individual patients. They often do not analyze the potential harms as well as benefits of medications before prescribing. Furthermore, with the exception of geriatric rotations, trainees get little instruction on how to adjust treatment for the needs of older adults. This lack of training in undergraduate, graduate (residency) and post–graduate/continuing education for health professionals often results in clinicians simultaneously overprescribing and feeling underqualified to adjust or discontinue medications, leaving their patients vulnerable to harm.



Few clinicians have received sufficient training in avoiding overprescribing and discontinuing medications.

The Threat of Medication Overload and Adverse Drug Events (ADEs)



5 million older adults sought medical attention for ADEs in 2018

Medication overload occurs when a person is taking multiple

medications that may

pose a greater chance

of harm than benefit.

Harm from medication overload includes delirium, falls, strokes,

and other events that

can be life-threatening.



280,000 hospitalizations in 2018 due to ADEs



42% of older adults take 5 or more prescription medications



\$62 billion in unnecessary hospitalizations over 10 years



There was a 200% increase in polypharmacy over 20 years



150,000 premature deaths in next 10 years due to ADEs



Improving Training

Improvements must be made in health professionals' education curricula to teach them to avoid medication overload and adverse drug events, and increase their competency in deprescribing, or discontinuing medications. Clinicians should be taught to conduct prescription checkups, recognize when medications are harming or no longer benefitting patients, and how to safely taper or stop them. It is important for all health professionals to recognize the need for different prescribing and dosing for older patients with multiple chronic conditions. Training must also teach clinicians how to engage in shared decision making conversations with patients and family members about medications and health goals, as well as how to communicate medication concerns with other health professionals. Curricula should highlight the potential risks and side effects associated with commonly prescribed medications and when it is appropriate to offer non–pharmacological treatments.

Enhancing Continuing Education

Few clinicians currently in practice have received sufficient training in avoiding overprescribing and discontinuing medications. Therefore, training on patient–centered prescribing and deprescribing should be incorporated into continuing education (CE) activities related to medication use. CE requirements vary by state and profession, but all clinicians have to complete a certain amount of CE hours per year to maintain their licenses. To avoid conflicts of interest and biased information in CE, new CE activities in the form of in–person seminars, case conferences, online modules, academic detailing, or podcasts should be created without reliance on pharmaceutical industry funding.



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Taking Action to Eliminate Medication Overload

Implementing these improvements in health professionals' education will require collaboration with organizations that oversee curricula design like the Association of American Medical Colleges or the American Association of Colleges of Nursing. Additionally, support from professors, student organizations, senior clinicians, and deprescribing networks will be crucial to help persuade teaching institutions to adopt the changes. To generate CE activities on appropriate prescribing and deprescribing, clinicians and researchers will need to develop and test content, and have the approval of organizations such as the Accreditation Council for Continuing Medical Education. Support from specialty societies and state licensing boards will be important for wide enactment of these new educational improvements. Without making careful prescribing and deprescribing a greater priority in education and training for all health professionals, medication overload and barriers to deprescribing will persist—leaving millions of older Americans at risk of serious harm.



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This issue brief is part of a project funded by the Gordon and Betty Moore Foundation and conducted by the Lown Institute. A report, *Medication Overload: America's Other Drug Problem*, quantifies the growing harm older Americans face from taking too many medications. The Lown Institute's subsequent publication, *National Action Plan for Eliminating Medication Overload*, provides detailed descriptions of our recommendations and citations for this issue brief.