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***Our Mission:*** Helping to prepare Iowa's health practitioners to care for our growing population of elders. *E-NEWS* is one of our methods of teaching through technology.

Each month, *E-NEWS* delivers abstracts from current multidisciplinary healthcare journal articles related to a specific geriatric topic. This month's *E-NEWS* focuses on POLYPHARMACY AND DEPRESCRIBING IN GERIATRICS.

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## POLYPHARMACY AND DEPRESCRIBING IN GERIATRICS

In this issue of the *E-NEWS*, you will find abstracts for:

- An article that presents an overview of skills to improve medication use management in older adults with polypharmacy.
  - An article that explores reducing polypharmacy by deprescribing potentially inappropriate medications.
  - An article that discusses polypharmacy management in older adults with comorbidities.
  - An article that provides polypharmacy reduction strategies.
  - An article that shares recommendations for action from the International Group for Reducing Inappropriate Medication Use & Polypharmacy.
  - An article that offers a four-step plan for deprescribing in older adults.
  - An article that reviews the principle of rational prescribing and deprescribing in older adults with multiple chronic conditions.
  - An article that addresses deprescribing in older adults.
  - A report that proposes ways to align patient, clinician, and health plan goals when deprescribing in advanced illness.
  - A review that examines safety concerns of deprescribing in older adults and strategies to mitigate potential harms.
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- Antimisiaris D, Cutler T. Managing Polypharmacy in the 15-Minute Office Visit. *Prim Care*. 2017 Sep;44(3):413-428.

Polypharmacy is an underappreciated factor in undesirable patient outcomes. In older adults, polypharmacy is considered a syndrome of harm and presents a challenge to primary care providers. The United States has one of the highest medication use rates per capita in the world. With the aging population, and polypharmacy a significant part of the lives of older adults, management of polypharmacy poses both a growing challenge and an opportunity for all health care providers. This article provides an overview of skills to improve medication use management in older adults living with polypharmacy. © Elsevier Inc.



- Chou J, Tong M, Brandt NJ. Combating Polypharmacy Through Deprescribing Potentially Inappropriate Medications. *J Gerontol Nurs*. 2019 Jan 1;45(1):9-15.

Polypharmacy, defined as the use of five or more medications, is becoming increasingly prevalent in older adults throughout the United States. Deprescribing, along with the use of existing tools, such as the American Geriatrics Society Beers Criteria, can help guide health care providers in reducing the risks associated with polypharmacy such as side effects and drug interactions. The framework of deprescribing and the use of existing guidelines and resources are valuable in guiding health care providers in addressing polypharmacy. © SLACK Incorporated.



- Diggins K. Deprescribing: Polypharmacy management in older adults with comorbidities. *Nurse Pract*. 2019 Jul;44(7):50-55.

In today's clinical landscape, the simultaneous use of multiple drugs to treat a single condition has become a major patient safety issue. Recent evidence suggests a need to identify deprescribing opportunities in the management of polypharmacy. NPs, as clinical gatekeepers, are in a key position to spearhead deprescribing best practices, specifically as they relate to older adults with multiple medication regimens.



- Levy HB. Polypharmacy Reduction Strategies: Tips on Incorporating American Geriatrics Society Beers and Screening Tool of Older People's Prescriptions Criteria. *Clin Geriatr Med*. 2017 May;33(2):177-187.

There is no single definition of polypharmacy. Use of 5 or more medications commonly is used. An alternative, quantitative definition, such as use of more medications than clinically indicated or use of unnecessary or harmful prescribing, has been proposed. Protocols or algorithms to improve polypharmacy and prescribing in older adults have been developed. The American Geriatrics Society (AGS) Beers Criteria and Screening Tool of Older People's Prescriptions (STOPP) explicit criteria reflect elements that are common across protocols and algorithms. Concepts in AGS Beers and STOPP can be incorporated into polypharmacy reduction strategies to improve outcomes of care for older adults.



- Mangin D, Bahat G, Golomb BA, Mallery LH, Moorhouse P, Onder G, Petrovic M, Garfinkel D. International Group for Reducing Inappropriate Medication Use & Polypharmacy (IGRIMUP): Position Statement and 10 Recommendations for Action. *Drugs Aging*. 2018 Jul;35(7):575-587.

Globally, the number of drug prescriptions is increasing causing more adverse drug events, which is now a significant cause of mortality, morbidity, and disability that has reached epidemic proportions. The risk of adverse drug events is correlated to very old age, multiple co-morbidities, dementia, frailty, and limited life expectancy, with the major contributor being polypharmacy. Each characteristic alters the risk-benefit balance of medications, typically reducing anticipated benefits and amplifying risk. Current clinical guidelines are based on evidence proven in younger/healthier adult populations using a single disease model and their application to older adults with multimorbidity, in whom testing has not been conducted, yields a different risk-benefit prospect and makes inappropriate medication use and polypharmacy inevitable. Applying inappropriate clinical

practice guidelines to older adults is antithetical to good healthcare, is likely to increase health inequity, and is associated with substantial negative clinical, economic, and social implications for health systems. The casualties are on the scale of a war or epidemic, yet are usually invisible in measures of healthcare quality and formal recommendations. Radical and rapid action is required to achieve a better quality of life for older populations and to remain true to the principles of medical professionalism and evidence-based medicine that place patients' interests and autonomy at the fore. This first International Group for Reducing Inappropriate Medication Use & Polypharmacy position statement briefly details the causes, consequences, and extent of inappropriate medication use and polypharmacy. This article outlines current strategies to reduce inappropriate medication use, provides evidence for their effect, and then proposes recommendations for moving forward with 10 recommendations for action and 12 recommendations for research. We conclude that an urgent integrated effort to reduce inappropriate medication use and polypharmacy should be a leading global target of the highest priority. The cornerstone of this position statement from the International Group for Reducing Inappropriate Medication Use & Polypharmacy is the understanding that without evidence of definite relevant benefit, when it comes to prescribing, for many older patients 'less is more'. This approach differs from most other current recommendations and guidance in medical care, as the focus is on what, when, and how to stop, rather than on when to start medications/interventions. Disrupting the framework that indiscriminately applies standard guidelines to older adults requires a new approach that better serves patients with multimorbidity. This transition requires a shift in medical education, research, and diagnostic frameworks, and re-examination of the measures used as quality indicators. In achieving this objective, we promote a return to some of the original concepts of evidence-based medicine: which considers scientific data (where it exists), clinical judgment, patient/family preference, and context. A shift is needed: from the current model that focuses on single conditions to one that simultaneously considers multiple conditions and patient priorities. This approach reframes the clinician's role as a professional providing care, rather than a disease technician.



- [McGrath K, Hajjar ER, Kumar C, Hwang C, Salzman B. Deprescribing: A simple method for reducing polypharmacy. \*J Fam Pract.\* 2017 Jul;66\(7\):436-445.](#)

Polypharmacy brings with it increased risks for adverse drug events and reduced functional capacity. This 4-step plan will help you safely deprescribe in older adults.



- [Ouellet GM, Ouellet JA, Tinetti ME. Principle of rational prescribing and deprescribing in older adults with multiple chronic conditions. \*Ther Adv Drug Saf.\* 2018 Aug 9;9\(11\):639-652.](#)

Although the majority of older adults in the developed world live with multiple chronic conditions (MCCs), the task of selecting optimal treatment regimens is still fraught with difficulty. Older adults with MCCs may derive less benefit from prescribed medications than healthier patients as a result of the competing risk of several possible outcomes including, but not limited to, death before a benefit can be accrued. In addition, these patients may be at increased risk of medication-related harms in the form of adverse effects and significant burdens of treatment. At present, the balance of these benefits and harms is often uncertain, given that older adults with MCCs are often excluded from clinical trials. In this review, we propose a framework to consider patients' own priorities to achieve optimal treatment regimens. To begin, the practicing clinician needs information on the patient's goals, what the patient is willing and able to do to achieve these goals, an estimate of the patient's clinical trajectory, and what the patient is actually taking. We then describe how to integrate this information to understand what matters most to the patient in the context of an array of potential tradeoffs. Finally, we propose conducting serial therapeutic trials of prescribing and deprescribing, with success measured as progress towards the patient's own health outcome goals. The process described in this manuscript is truly an iterative process, which should be repeated regularly to account for changes in the patient's priorities and clinical status. With this process, we aim to achieve optimal prescribing, that is, treatment regimens that maximize benefits that matter to the patient and minimize burdens and potential harms.



- Page AT, Potter K, Clifford R, Etherton-Beer C. Deprescribing in older people. *Maturitas*. 2016 Sep;91:115-34.

Older people with chronic disease have great potential to benefit from their medications but are also at high risk of harm from their medications. The use of medications is particularly important for symptom control and disease progression in older people. Under-treatment means older people can miss out on the potential benefits of useful medications, while over-treatment (polypharmacy) puts them at increased risk of harm. Deprescribing attempts to balance the potential for benefit and harm by systematically withdrawing inappropriate medications with the goal of managing polypharmacy and improving outcomes. The evidence base for deprescribing in older people is growing. Studies to reduce polypharmacy have used a range of methods. Most evidence for deprescribing relates to the withdrawal of specific medications, and evidence supports attempts to deprescribe potentially inappropriate medicines (such as long-term benzodiazepines). There is also evidence that polypharmacy can be reduced by withdrawing specific medications using individualized interventions. More work is needed to identify the sub-groups of older people who may most benefit from deprescribing and the best approaches to undertaking the deprescribing interventions. © Elsevier Ireland Ltd.



- Parekh N, Schenker Y, Good CB, Neilson L, Shrank WH. Deprescribing in Advanced Illness: Aligning Patient, Clinician, and Health Plan Goals. *J Gen Intern Med*. 2019 Apr;34(4):631-633.

Polypharmacy has been linked to adverse outcomes including increased risk of hospitalization, falls, and death and contributes to unnecessary healthcare spending. Deprescribing efforts aim to reduce medication burden while improving or maintaining patients' quality of life. While the practice of deprescribing is gaining momentum, quality measurement and provider reimbursement are barriers that must be addressed for deprescribing to achieve widespread adoption. Because many quality measures are focused on medication use and adherence, deprescribing efforts may negatively impact primary care provider and health plan quality ratings and value-based reimbursement. In addressing this conflict, there are opportunities to proactively align the priorities and incentives of patients, providers, and plans to promote deprescribing. In this report, we propose several actionable steps to address quality and reimbursement-based barriers such as facilitating the exclusion of those engaged in deprescribing efforts from quality measures and the development of deprescribing-based quality measures.



- Reeve E, Moriarty F, Nahas R, Turner JP, Kouladjian O'Donnell L, Hilmer SN. A narrative review of the safety concerns of deprescribing in older adults and strategies to mitigate potential harms. *Expert Opin Drug Saf*. 2018 Jan;17(1):39-49.

INTRODUCTION: As with prescribing or continuing medications, deprescribing brings with it the potential for harm as well as benefit. Uncertainty and avoidance of harm has been reported as a barrier to deprescribing in practice and may contribute to continuation of inappropriate medications. AREAS COVERED: This narrative review covers four main safety concerns/potential harms of deprescribing in older adults: adverse drug withdrawal events, return of medical condition(s), reversal of drug-drug interactions and damage to the doctor-patient relationship. These are discussed in relation to medications in general, with some examples of medication classes used to illustrate the potential safety concerns. The majority of these harms can be minimized or even prevented by using a patient-centered, structured deprescribing process with planning, tapering and close monitoring during, and after medication withdrawal. EXPERT OPINION: More research is needed into the safety concerns of deprescribing; however, avenues exist during drug development and post-marketing surveillance to gain knowledge on this topic. Questions remain about when it is suitable to discontinue certain medications/medication classes and there is uncertainty about the harms and benefits of both medication continuation and discontinuation in complex older adults.



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*Next Month's Issue:*

Kidney Function and Medication Dosing Adjustments  
in the Older Adult

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