Can Managed Care Manage Polypharmacy?

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KEYWORDS

• Polypharmacy • Managed care • Geriatrics • Beers criteria • Adherence
• Accountable Care Organizations (ACO) • Medicare Advantage Plans (MA-PD)

KEY POINTS

- Polypharmacy is the taking of multiple medications by a patient in whom the benefits are exceeded by the clinical and/or financial costs, resulting in negative or unrealized beneficial outcomes.
- Some of the common causes of polypharmacy include inappropriate application of clinical guidelines to treat multiple chronic conditions, unrecognized drug adverse events, inappropriate self-management, and the lack of patient-centered care from polyproviders, especially across care transitions.
- Managed care systems in a position to treat polypharmacy include not only traditional managed care organizations (health maintenance organizations , Medicare Advantage Plans) but newer organizations such accountable care organizations, providers involved in bundled payments and integrated delivery systems.
- Effective reduction in polypharmacy requires coordinated efforts across all key stakeholders, including prescribers, nurses, and pharmacists, and managed care is in an ideal position to provide direction and motivation; in addition to involving many stakeholders, efforts to reduce polypharmacy can occur at several points along the patient journey.
- With regard to whether managed care can manage polypharmacy, the answer is not only yes but that managed care must and can successfully treat the growing problem of polypharmacy that affects older adults and the health care system.

Polypharmacy by definition is a term used to describe multiple drug use by patients; typically, more than 4 chronic medications.[1] Under this definition, polypharmacy in many cases is appropriate. However, in practice polypharmacy has come to mean the inappropriate use of multiple medications. Polypharmacy can occur as a result of a range of situations, including the excessive application of clinical guidelines, lack of coordination among multiple prescribers, treating adverse drug events (ADEs), misaligned medications across transitions of care, patient self-treatment, and inappropriate overtreatment. The reason that polypharmacy is a problem is that

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it often represents a situation in which the benefits of a specific medication at the dose and frequency that an individual patient is taking are outweighed by the costs. These costs can be financial; however, they may place a greater burden when they lead to unrealized benefits or adverse clinical affects.

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The phenomenon of polypharmacy is especially prevalent among the elderly because increasing age puts adults at higher risk for multiple chronic illnesses, many of which require drug therapy. If all of the available clinical practice guidelines for older adults, such as those for management of high cholesterol levels, hypertension, diabetes, cognitive decline, and osteoporosis, were to be applied it could easily create a polypharmacy situation. The application of all of these guidelines is fast becoming a requirement for value-based payment models such as the Physician Quality Reporting System,[2] in addition to being included as components of the Welcome to Medicare and Annual Wellness Examination.[3] This process also applies in skilled nursing facilities (SNFs), in which identification of many conditions that call for treatment is a part of the minimum data set (MDS) in such sections as C for Cognition and D for Mood, both of which could lead to the use of medications under clinical guidelines that may result in polypharmacy, as noted earlier.

Polypharmacy may also result from treating adverse drug events (ADEs). For example, the most common chronic disease in the United States, osteoarthritis, affects 40 million people, most being older adults. Chronic stiffness and pain from arthritis have an impact on function, prompting the routine use of nonsteroidal antiinflammatory drugs (NSAIDs) and aspirin products. Long-term use of NSAIDs lowers the prostaglandin level in the gastrointestinal (GI) tract, which may result in esophagitis, peptic ulcerations, GI hemorrhage, and GI perforation. In older adults, treatment with histamine-2-receptor blockers or proton pump inhibitors to relieve the adverse effects of aspirin or other NSAIDs may cause additional side effects, such as confusion and mental status changes, in turn requiring more treatment. This example shows how easily adverse events occur and escalate in older patients. ADEs account for 30% of hospital admissions for persons aged 65 years and older; approximately 106,000 deaths are attributed to medication problems. Between 15% and 65% of these events are preventable[4] by avoiding potentially inappropriate medications, effective communication, and patient education.[5] When a particular medication regimen is unsuccessful, the health care provider typically prescribes another drug, which is referred to as the prescribing cascade. Dr Jerry Gurwitz, a noted geriatrician, added the caveat that "Any symptom in an elderly patient should be considered a drug side effect until proven otherwise," although his wife, Leslie Fine, a pharmacist, is thought to have first described this approach.[6]

Polypharmacy may also be attributed to patients' self-management directly through use of over-the-counter (OTC) medications, through the reuse of previously ordered medications, or through indiscriminate use from a stockpile of previously discontinued medications, primarily because of the high cost of prescription drugs. Adults may be sharing medications or may have received medications from others who thought that the drug that helped them would help their relative or friend as well. These situations are ripe for polypharmacy causing negative outcomes.