

Improving Medication Adherence for Seniors with Mild Cognitive Decline

By Terry Ann Donner, RN, JD, CCM, CSA

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As we age, multiple medications are often prescribed to treat chronic health conditions like high blood pressure or arthritis. Remembering to take the correct dose of the proper medication at the right time can be cumbersome. For 22% of Americans aged 65 and older with mild cognitive impairment, adhering to a regular medication routine can be very difficult. This article explores how helping seniors with mild cognitive impairment implement a medication adherence plan supports their ability to age in place.

What is medication adherence and is it important?

Medication adherence is the extent medications are taken as prescribed by a physician. A review of medication errors in older adults around the world revealed that between 75% and 96% reported that they often made mistakes when taking their medications. Failing to take your medication as prescribed increases the risk of:

- **Disease progression.** Your chronic disease(s) may get worse.
- **Hospitalization.** You may require hospital admission for treatment.
- **Costly care.** Improperly caring for your illness increases the cost of care for you and

the healthcare system.

- **Morbidity and mortality.** If your chronic disease(s) are serious, improper management of your medications may result in permanent damage to your health or even death.
- **Loss of independence.** You risk losing the physical ability to function independently in your home.

What to consider before creating a medication adherence plan for seniors

Aging results in physical, lifestyle, and cognitive challenges. These challenges highlight many factors that must be considered before a safe plan of medication adherence can be created. When designing a medication routine for a senior with a cognitive or physical impairment, the plan must be patient-centered, focusing on their unique needs.

Patient-centered considerations

Healthcare providers may not address the personal factors in an elder individual's life that may prevent them from taking the medications as prescribed. The individual may have a number of mental, physical, and caregiver issues that need to be addressed before medications can be taken properly.

Cost of medication

More than 20% of those 65 and older did not take their medications as prescribed because they could not afford the cost. These seniors took less medication than prescribed, did not fill the prescription at all, or skipped doses to make the medication last longer.

Mental status

Almost one-third of those 65 and older experience some mild decline in brain function, affecting memory or decision-making ability. It is, therefore, essential to determine whether the person has the clarity to remember to take medications correctly and can identify side effects.

Physical limitations

The impact of an elderly person's physical limitations should also be addressed. For example, do they have:

- **Dexterity.** The strength and flexibility to open a pill bottle or pill box.
- **Visual acuity.** Can the senior see well enough with glasses or a magnifier to read medication labels or instructions on a smartphone app?
- **Hearing loss.** Can the senior hear alarms from a pill dispenser or a verbal medication reminder from a medical alert system?

Support network

Another important factor is whether an elderly person living alone has a family member, friend, or professional caregiver who can assist with medication management when needed. With varying degrees of help, seniors can often remain in their homes for years.

Health system considerations

Medications not only address the disease process but can also significantly affect an elder person's lifestyle. The effects of medications on illness and daily life should be assessed on an ongoing basis.

Lifestyle changes

Physicians might not consider the significant life changes that elderly patients may need to make when prescribing medication. Geriatricians, physicians who specialize in the care of older adults, are more likely to be informed about community resources available to seniors, make referrals for therapy to enhance strength and mobility and to consider the effects of polypharmacy.

- **Side effects.** Seniors need ongoing instruction and monitoring for unpleasant side effects as they are often being treated long-term with medications for chronic illnesses.
- **Dietary changes.** Specific diagnoses and medications will require changes in what the

senior eats and may increase the cost of meals.

- **Alteration of daily routines.** Medications may cause the person to alter daily routines. For example, some medications may cause sedation, preventing the senior from driving.

Assessing effectiveness of medications and adherence

Physicians are often not given enough time to address older patients concerns about medications and how they make them feel. Nurses or medical assistants do their best to update the person's medications in the electronic medical record at each visit. However, it can be challenging for an older person to address concerns or questions regarding their medications.

If the elderly individual has mild cognitive decline, they might not remember that their specialist, in another practice with a different electronic medical record system, prescribed medication or that they have stopped taking a medication because it made them too sleepy. It is important that the elderly individual has a way of prompting themselves during the visit to raise medication-related questions with his physician.

Thinking outside the pill box: creating the plan

Most of the following interventions may be easily implemented to create a medication adherence plan to help an elderly individual

experiencing mild cognitive decline continue to age in place even if they are living alone.

[Supporting image]

1. Medication chart

A medication chart can be created so the individual can see what medications are prescribed and what they do. The chart can be taken to medical appointments to discuss questions or concerns with their physician. The medication chart should include:

- **Medication name.** What medication is prescribed (brand name or generic)
- **Purpose.** The reason the medication is prescribed
- **Dose.** Amount to be taken
- **Frequency.** How many times a day or week is the medication to be taken
- **Prescribing physician.** Include the name and phone number of the physician
- **Concerns.** Side effects, need for refills, or other questions can be recorded in the chart
- **Allergies.** Medication allergies and the type of reaction can be described at the bottom of the chart

A new medication chart can be created after each physician visit to ensure any changes in medications are recorded. It is also a good habit to dispose of discontinued or empty medication bottles each time a new chart is generated.

2. Making medication routine

The best way to encourage adherence is to make medication part of the daily routine, such as taking it with meals. Pairing the taking of a medication with a long-time habit, also creates an association that helps an individual with mild cognitive impairment remember to take the medication.

3. Pill dispensers

Linking the use of a pill dispenser (an automatic pill dispenser or pill box) to a daily activity can help seniors remember to take their medication. The pill dispenser should be placed where the individual normally takes their medications.

4. Automatic dispenser vs. traditional pill box

Choosing between an automatic pill dispenser or a traditional pill box is generally a matter of personal preference and comfort.

- **Traditional pill boxes.** If an elderly person can open pill bottles, read labels, and place pills in plastic boxes, a pill box can be a very simple way of organizing medications. The downside is that most pill boxes can hold only a week's worth of medication. If an individual requires the assistance of a family member or professional caregiver like a geriatric care manager, to prefill pill boxes, it would be most efficient and cost-effective to have someone do it once a month. Multiple

pill boxes would be needed to prefill a month's worth of medication.

- **Automatic pill dispenser.** An automatic pill dispenser can usually hold a month's worth of medication and often locks after the medication is dispensed to prevent taking additional pills. The downside to automatic pill dispensers is that they must be programmed. A senior may not have the physical or cognitive ability to program a dispenser with the name, date, time of administration, and dose of each medication. A family member or friend may have to set up the dispenser. Many automatic pill dispensers have alarms or flashing lights to indicate it is time to take a medication. This can be a very effective reminder for those with mild cognitive impairment, especially if it is placed where they routinely eat, brush their teeth, or regularly perform another activity.

5. Medical alert systems

An in-house medical alert system is technology installed in a fixed place in the home that can be programmed to provide verbal reminders to take medications at scheduled times. These devices can also remind seniors to drink water if they need to consume additional fluids with their medication. The service can be used in conjunction with an automatic pill dispenser or pill box.

6. Smart phone apps

Smartphone apps can send alerts to remind the elderly to take medications. They are cheaper than a medical alert system but usually do not allow verbal reminders. Seniors with cognitive decline or visual difficulties would need assistance setting up such an app.

When creating a medication adherence plan for an older adult, it is essential to **consider how taking medication can be part of the person's daily routine** and what reminders or devices might make it more accessible. When the use of a medication chart is combined with a way to easily dispense medicines at the right time and in a place where the individual engages in some other routine activity, the chances of the plan being successful increase. Incorporating the support of a family member, friend, or professional caregiver to help fill dispensers or program alert systems increases the likelihood that a senior with mild cognitive decline will safely take medications.

FAQ

Can professional caregiver support in the home improve medication adherence for those with memory issues?

Professional caregiver support may ensure seniors can safely take medications and remain home. Geriatric care managers who are licensed nurses can fill pill dispensers and help seniors with mild cognitive decline discuss concerns with their physicians. They can also

help seniors cut pills, prefill and safely store insulin syringes and mark the dosage on medicine cups in the event that liquid medication is taken. Home health aides cannot fill pill dispensers but can provide medication reminders and open pill bottles so seniors can self-administer medication.

What is the role of the pharmacist in a medication adherence plan?

Pharmacists provide important information regarding medications. A phone call with the local or mail-order pharmacy can help a senior understand what his medication does, how it should be taken, and the possible side effects and interactions. Some pharmacies package medications in daily dose packs listing the time of day the medication should be taken or other forms of pill dispensers.

Can the cost of medications prevent seniors from taking their medications as prescribed?

A major concern that older people have regarding medications is cost. In 2022, approximately 1 in 5 reported medication nonadherences due to the cost of their medications. This resulted in skipping doses, taking less than a full dose or failing to fill the prescription at all.

Key takeaways:

- Medication adherence plans are important for seniors planning on aging in place as almost one-third of seniors 65 and older will develop mild cognitive decline.
- Linking taking one's medications with another daily routine like brushing your teeth or eating a meal, improves medication adherence.
- Medical technologies like automated pill dispensers and medical alert systems can be used to help seniors with mild cognitive decline take the proper medication at the right time.
- Family, friends, or professional caregivers can help seniors with cognitive decline program pill dispensers and medication alert systems to make it easier for those with cognitive decline to remain in their homes.

Resources:

1. [Estimating the prevalence of dementia and mild cognitive impairment in the US: the 2016 Health and Retirement Study harmonized cognitive assessment protocol project.](#)

2. Medication errors in the older people population.
 3. Medication adherence and compliance: recipe for improving patient outcomes.
 4. Cost-related medication nonadherence and desire for medication cost information among adults aged 65 years and older in the US in 2022.
 5. What is in-home care?
 6. Services for older adults living at home.
 7. Medication adherence and compliance: recipe for improving patient outcomes.
 8. The pharmacist's role in medication adherence.
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