

Managing multiple medications



People with MS often have more than five prescriptions, which can lead to problems.

by Mary E. King, PhD

Does your doctor know how many medications you take? It's common for people with multiple sclerosis to take multiple therapies. But research shows that taking multiple medications is linked to increased hospital stays, cognitive problems and other issues.

Multiple medications in MS

People with MS can easily end up with five or more prescriptions (known as polypharmacy). They may use agents designed to slow the progression of the disease, such as interferons, glatiramer acetate, ofatumumab or other disease-modifying therapies (DMTs). And because many different symptoms can occur in MS, such as pain, bladder problems and depression, healthcare professionals may prescribe additional medications to help manage these issues.

Risks for any person, with or without MS, who is taking five or more medications include any of the side effects of the medications as well as accidental duplicate prescriptions. Certain medications, such as opioids and benzodiazepines, can increase the risk of harmful effects to the brain and other areas.

Researchers reviewed the medication records of 14,227 individuals with MS living in British Columbia (BC), Canada.

"Taking many medications at once has been associated with increased risk of negative health outcomes, such as hospitalizations and visits to the emergency department," explains Anibal

Chertcoff, MD, postdoctoral fellow at the Pharmacoepidemiology in MS group, University of British Columbia, Vancouver BC, and clinical fellow at the BARLO MS Centre at St. Michael's Hospital, University of Toronto, Ontario. "We found that taking five or more medications occurred in over 1 in 4 people with MS."

He also found that people with MS taking five or more medications were 2.4 times more likely to be hospitalized than those taking fewer medications.

Possible impacts on cognition

Jared Bruce, PhD, professor and director of psychiatric research at the University of Missouri-Kansas City (UMKC) School of Medicine, and Joanie Thelen Huebner, PhD, now a postdoctoral fellow in the UMKC Department of Community & Family Medicine at University Health Lakewood Medical Center, looked deeper into the potential impacts of taking multiple medications on cognition in people with MS.

"We were writing a chapter about factors that affect the cognitive aspects of brain function in MS," Huebner says. "We couldn't find data about the potential impact of taking multiple medications on cognition in MS. Yet this is a well-known risk factor for cognitive effects in older adults, and we felt this might be similar for people with MS."

They reviewed a variety of medical databases to see how many medications people with MS are prescribed and found that 15% to 65% of these individuals, depending on the group characteristics, are prescribed five or more medications.

Huebner studied this further for her doctoral dissertation under the mentorship of Bruce. By carrying out cognitive testing in people with MS, she discovered that taking five or more medications is linked with greater risk of impaired cognition.

"Fatigue and cognitive impairment are two of the most common issues that people with MS raise with their clinicians, and we may be unintentionally contributing to these by overprescribing," Huebner says. "Adding more medications does not always improve the all-important balance between benefits and risks of treatment."

Adds Bruce: "Patients experiencing negative cognitive effects of polypharmacy might feel like they are having a harder time concentrating, thinking quickly or remembering things. It is possible that close friends or family members may notice these effects as well. Patients with these concerns should talk with their healthcare provider before making any changes to their medication."

Dennis Bourdette, MD, professor emeritus, department of neurology, Oregon Health & Science University, in Portland, Oregon, is also concerned about the potential cognitive effects of multiple medications. He emphasizes an important message for people with MS: "Most of the medications we prescribe to help control MS symptoms can affect the brain, causing drowsiness, concentration and memory problems, and fatigue. The effects can be

additive when you are taking more than one medication.”

Bourdette reminds people with MS that “medications taken to help with symptoms of MS are not curative and should be continued only if they are clearly helpful and well tolerated.” He recommends that people with MS bring up any concerns they may have about their medications with their healthcare professionals at each appointment. “Consider the possibility that some of the medications you are taking for MS symptoms are contributing to ‘brain fog,’ problems with concentration and memory, or fatigue. Discuss this possibility with your neurologist,” he says.

Bruce adds: “If you are concerned specifically about your cognition, you might want to consider a neuropsychological evaluation.”

He explains that a neuropsychological evaluation can document the kinds of cognitive problems a person with MS may be having as well as help formulate a treatment plan.

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