EDITORIAL AND COMMENT

Difficulty Taking Medications: a Corollary to Dementia Risk

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Primary care providers (PCPs) are typically the first to care for and evaluate older adults, instead of geriatricians, since there are only about 7000 certified geriatricians and a shortfall of 13,000 needing to care for 14 million most vulnerable older adults in the USA. [1] Alzheimer's disease and related dementias (ADRD) are common in older adults, and they have a profound impact on those directly affected, their caregivers, and the society. The ability of PCPs to identify those with and at risk for dementia has profound implications for the wellbeing of patients and their caregivers.

While PCPs are on the front lines of dementia care, they find providing this care challenging. Nearly 40% reported never or only sometimes being comfortable making a diagnosis of ADRD, and half felt unprepared to care for those living with ADRD.[2] Other factors that contribute to missed or delayed ADRD diagnosis by PCPs include negative attitudes and stigma about dementia diagnosis among providers, patients, and families, the complexity of cognitive testing, complex communication issues, and the limited time PCPs have for office visits.[3]

Barthold et al. explored the association between difficulty taking medications using the Health and Retirement Survey and future diagnosis of ADRD using linked Medicare claims data from 1993 to 2012.[4] Those who had a diagnosis of ADRD were much more likely to report difficulty managing their medicines 1 to 2 years prior than those who did not have the diagnosis (11.0% vs 2.3%). Even with a lookback as long as 3 to 4 years, those with ADRD were more likely to report difficulty taking medicines (5.8% vs 2.3%). This study demonstrates that a patient who reports difficulty taking his or her medications is more likely to be diagnosed with ADRD over the ensuing years.

While Barthold et al. correctly noted that difficulty taking medications should be viewed as a risk factor for the development of ADRD, the relationship is probably more nuanced than this. Many with ADRD go undiagnosed.[4] It is very likely that many who reported difficulty managing medications already had ADRD, but did not get diagnosed until years later.[5,6] Many others probably had mild cognitive impairment (MCI), a condition in which a patient has deficits on cognitive testing that do not yet substantially interfere with the ability to function independently.[7] Thus, a report of difficulty taking medications should prompt a deeper dive into the individuals' functional abilities and cognitive screening.

An important principal of geriatrics is that medical conditions and social determinants of health that threaten functioning and well-being often cluster and overlap. Thus, difficulty taking medications should prompt evaluation of multiple other problems that could influence functional ability. A functional assessment ranges from asking about activities of daily living (ADLs), such as transferring, grooming, toileting, showering/bathing, dressing, and eating, to instrumental activities of daily living (IADLs) in addition to managing medications, such as cleaning, cooking, shopping, using the phone, managing transportation or driving, and managing finance. Challenge in managing medication is often the first IADL difficulty a PCP identifies since medication management is the most proximal to the routine clinical care that a PCP provides. PCPs often improve care for their patients and reduce the risk for the serious complications by performing detailed medication reconciliations. When doing these reconciliations, PCPs should recognize that they are also learning about crucial aspects of cognitive functions such as memory and executive function. Problems with medications should naturally alert a PCP to the risks of multiple medications in patients with multimorbidity. However, while it may be less obvious, difficulty with medications should also alert a PCP to the patient's other challenges in IADLs, particularly managing finances. When asking about problems in tasks such as medication or financial management, it is important to recognize that anosognosia, or the loss of insight to one's functional decline, is correlated with cognitive decline in those progressing along the MCI to dementia spectrum.[8] Over time, it is necessary to corroborate the patient's self-reported history and functional abilities with those of family members or caregivers to understand the extent of the functional changes.

When patients report difficulty managing medications, it is useful for clinicians to consider whether MCI or early dementia is a cause as timely and accurate diagnosis is essential to caring for those affected by the condition, their families and

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caregivers. Patients and their families often wish to understand reasons for the changes in their cognitive and physical functions. Timely and accurate diagnosis allows the patients and their families to explore community resources, obtain necessary assistance and support to maintain independence, protect their finances against frauds and scams, set up safety measures in the home environment, and determine long-term care plans. Furthermore, timely diagnosis enables patients and their families to discuss goals and preferences on how to best live their lives, plan for their future medical care through advance care planning (e.g., advance health care directives), arrange for financial management, and make important legal decisions (e.g., power of attorney for finance).

There are several approaches that might address the all too common delay in diagnosing and managing ADRD. First, PCPs can leverage the assistance of geriatricians and specialists in memory disorders (e.g., neurologists and neuropsychologists) as consultants. Consultation models include in-person, virtual visits, e-consults, and the novel model of Project ECHO® that provides tele-mentoring program for PCPs.[9] Second, several programs exist for PCPs who wish to gain added expertise in dementia care. For example, under the Health Resources and Services Administration, the 48 Geriatrics Workforce Enhancement Programs (GWEPs) have developed programs to link academic geriatricians with community primary care practices with training opportunities. The GWEPs also support the establishments of Age-Friendly Health Systems among community primary care practices to align evidence-based practices to meaningful clinical outcomes, including promoting interprofessional collaboration in the care of those living with dementia. Third, training programs for students, residents, and members of the interprofessional team should address the difficulties clinical providers have in diagnosing and managing dementia. Strategies include developing longitudinal geriatric clerkships and rotations, offering learning experience in memory care clinics, and exposing learners to patient panels that better represent the full spectrum of community living older adults including those residing in assisted living facilities.

Knowing difficulty taking medications is associated with future diagnosis of ADRD, frontline clinicians, such as PCPs, should be in tune with this particular IADL challenge, which is a gateway to explore other functional and cognitive changes. Identifying MCI and ADRD requires meticulous functional assessment, proper cognitive assessment, and careful evaluation to rule out and treat reversible causes of cognitive impairment. To support PCPs in gaining confidence in making the diagnosis and management of MCI and ADRD, it is important to develop models of care to better link specialists in geriatrics and memory care to PCPs and to train the current and future primary care workforce in this area of medicine that is traditionally not the focus of health science education.

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