Caring for older adults, Part 2:
The four Ds in geriatrics

In Part 1 of this two-part theme issue we discussed the value of comprehensive geriatric assessment and how this can be deployed to manage a number of common clinical presentations in older adults. In Part 2 we address four challenging syndromes known as the four Ds in geriatrics: dementia (classified in DSM-5 as major neurocognitive disorder), delirium, depression, and drug-related problems.

Each of the four Ds can exist as a stand-alone condition or can occur in combination. The syndromes can present in the acute care or the community setting. They can be associated with adverse outcomes in the short term or the long term. They are poorly understood by the public and even among medical practitioners.

One way to gain a better understanding of the four Ds involves a

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Closer examination of the interactions that can occur at three levels: disease-disease, disease-drug, and drug-drug. These interactions are often nonlinear. In other words, the commonly used heuristic of Occam’s razor, which holds that a single unifying diagnosis can explain the complexity of a patient’s clinical presentation, may not apply when dealing with the four Ds.

Examples of disease-disease interactions are common: older people with major neurocognitive disorder are at increased risk of developing delirium during an acute medical illness, and older people who develop delirium during hospitalization have a higher lifetime risk of major neurocognitive disorder.

Examples of disease-drug interactions are also common: older people with major neurocognitive disorder are at risk of developing drug-related adverse events, medication use is a recognized precipitating factor in the development of delirium, and a number of drugs are associated with an increased risk of depression.

The number of potential and actual drug-drug interactions in older people is vast. In 2015, the American Geriatrics Society published the updated Beers criteria for potentially inappropriate medication use in older adults. While the lists of drugs to be avoided may raise awareness of potential drug-related problems, the lists cannot be used to determine exactly what should be prescribed because of the substantial heterogeneity of older people, both in terms of their background health conditions and surrounding circumstances.

Older people who present with the four Ds require timely identification and appropriate management, as described in the articles that follow. Katalin Balogh and Roger Wong begin by offering 12 concise and evidence-informed tips for assessing and managing cognitive impairment and dementia in older adults. Next, Marisa Wan and Jocelyn Chase review the diagnosis, prognosis, prevention, and treatment of delirium in older adults. Paul Blackburn, Michael Wilkins-Ho, and Bonnie Wiese then consider the diagnostic challenges of late-life depression, and review the psychopharmacological and psychotherapeutic options at the primary care level. Finally, Leo Lai and Mark Fok address drug-related problems and describe how to safely and effectively reduce the number of medications used by older patients.

Management of the four Ds involves core competencies that can be taught and learned, and should be embedded in the training of physicians, both during and beyond medical school and residency. We need to support physicians and all other health professionals so that they feel empowered and ready when working with older people.

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References