

## NIH Public Access

**Author Manuscript** 

Am J Med. Author manuscript; available in PMC 2013 July 17.

#### Published in final edited form as:

Am J Med. 2013 February ; 126(2): 93-94. doi:10.1016/j.amjmed.2012.11.007.

# Geriatric Assessment of Older Adults with Heart Failure: An Essential Tool in Planning of Care

#### Philip Green, MD and Mathew S. Maurer, MD

Department of Medicine, Division of Cardiology, Columbia University Medical Center, New York, NY

"The good physician treats the disease; the great physician treats the patient who has the disease."

Sir William Osler

The incidence and prevalence of heart failure are strikingly age-dependent, with the majority of heart failure patients exceeding 75 years of age, prevalence rates in adults over 80 years of age approaching 10%, and mortality rates increasing exponentially with advancing age.<sup>1</sup> Older adults with heart failure often have multiple co-morbid conditions that not only adversely affect their prognosis but also limit their ability to comply with an ever more complex medical regimen. Therefore, it is not surprising that older adults hospitalized for heart failure with cognitive impairment may not be able to adhere to complex medical regimens and are thus among those at highest risk for subsequent adverse events.<sup>2</sup>

Despite the strong relationship between cognitive impairment and adverse events among older adults with heart failure, there remains a large gap in applying principles of geriatric assessment to the growing population of older adults who receive care primarily by subspecialists and nongeriatricians. The work done by Dodson et al<sup>3</sup> reminds us of the value that geriatric medicine has to offer as we approach the complexities of heart failure in older adults. In this issue of the Journal, the authors demonstrate that among 282 independent older adults hospitalized with heart failure, 47% had at least mild cognitive impairment. Among the 132 patients with cognitive impairment, the treating physician did not document cognitive impairment in 77% of cases. The presence of unrecognized cognitive impairment was associated with a 53% higher likelihood of experiencing death or re-hospitalization at 6 months after discharge compared with the absence of cognitive impairment. In contrast, those with recognized cognitive impairment did not have an excess likelihood of death or rehospitalization when compared with those without cognitive impairment, even though those with recognized cognitive impairment were older and had more severe cognitive limitations. Collectively, these data demonstrate that a vast majority of cognitive dysfunction goes under-recognized but that recognition among those hospitalized with heart failure can mitigate its short-term adverse effects.

Despite the importance of identifying cognitive impairment, the "best" method to assess cognitive function remains unknown. These investigators used the Folstein Mini-Mental State Examination,<sup>4</sup> which is the most widely utilized instrument to assess cognitive status in older adults. However, it is not clear that assessment of cognitive function is a reliable surrogate for an evaluation of one's ability to perform critical self-management skills such

Conflict of Interest: None.

<sup>© 2013</sup> Published by Elsevier Inc.

Authorship: Both authors had access to the data and a role in writing the manuscript.

as daily weight monitoring, reading and understanding dietary labels, monitoring sodium intake, and complying with an ever-changing multidrug regimen. Indeed, direct assessment of these self-management skills may be the best method for adequate deployment of appropriate patient-centered services. Such techniques, including the Medication Management Test,<sup>5</sup> were developed years ago but have not been widely embraced by the clinical community. Finally, objective assessment of functional status using short hall walks or timed up and go tests in which decrements in performance have been shown to be early markers of cognitive dysfunction,<sup>6</sup> may provide vital insights about functionality in the home environment. Future investigations are urgently needed to develop approaches to identify geriatric syndromes (including cognitive dysfunction) in order to facilitate these patients' self-management.

Interventions to maximize adherence to minimize the hazards of complex medical regimens hold great promise for improving outcomes. Given that the risk of adverse drug effects increases exponentially with the number of agents prescribed,<sup>7</sup> all unnecessary (and perhaps even some indicated) medications must be discontinued before discharge, thereby adhering to the tenets of geriatric pharmacology by prescribing as few drugs as possible. Principles of transitional care dictate that early clinical follow-up is crucial in this vulnerable subset of patients.<sup>8</sup> If impaired mobility limits a patient's ability to attend an office visit, then home care in the early postdischarge period by trained allied health professionals, including pharmacists,<sup>9</sup> can be employed to reduce unplanned readmissions or deaths among these patients.<sup>10</sup>

In summary, heart failure hospitalizations occur in older patients who suffer from multiple co-existing conditions, including cognitive impairments. The authors of this important manuscript have demonstrated the hazards of failure to recognize these cognitive difficulties in the early postdischarge period. Much work remains to be done to optimize our detection of cognitive impairment and other geriatric syndromes in order to support older adults with multimorbidity and ensure maximal benefit from complex medical regimens.

### Acknowledgments

Funding: Dr Maurer is supported by a grant from NIA (K24 AG036778).

#### References

- Kitzman DW, Rich MW. Age disparities in heart failure research. JAMA. 2010; 304(17):1950– 1951. [PubMed: 21045104]
- Chaudhry SI, Wang Y, Gill TM, Krumholz HM. Geriatric conditions and subsequent mortality in older patients with heart failure. J Am Coll Cardiol. 2010; 55(4):309–316. [PubMed: 20117435]
- Dodson JA, Truong T-TN, Towle VR, et al. Cognitive impairment in older adults with heart failure: prevalence, documentation, and impact on outcomes. Am J Med. 2013; 126:120–126. [PubMed: 23331439]
- Folstein MF, Folstein SE, McHugh PR. "Mini-mental state". A practical method for grading the cognitive state of patients for the clinician. J Psychiatr Res. 1975; 12(3):189–198. [PubMed: 1202204]
- Gurland BJ, Cross P, Chen J, et al. A new performance test of adaptive cognitive functioning: the Medication Management (MM) test. Int J Geriatr Psychiatry. 1994; 9(11):875–885.
- McGough EL, Kelly VE, Logsdon RG, et al. Associations between physical performance and executive function in older adults with mild cognitive impairment: gait speed and the timed "up & go" test. Phys Ther. 2011; 91(8):1198–1207. [PubMed: 21616934]
- Catananti C, Liperoti R, Settanni S, et al. Heart failure and adverse drug reactions among hospitalized older adults. Clin Pharmacol Ther. 2009; 86(3):307–310. [PubMed: 19516254]

- Hernandez AF, Greiner MA, Fonarow GC, et al. Relationship between early physician follow-up and 30-day readmission among Medicare beneficiaries hospitalized for heart failure. JAMA. 2010; 303(17):1716–1722. [PubMed: 20442387]
- Mehuys E, Dupond L, Petrovic M, et al. Medication management among home-dwelling older patients with chronic diseases: possible roles for community pharmacists. J Nutr Health Aging. 2012; 16(8):721–726. [PubMed: 23076515]
- Stewart S, Horowitz JD. Home-based intervention in congestive heart failure: long-term implications on readmission and survival. Circulation. 2002; 105(24):2861–2866. [PubMed: 12070114]