LETTERS

Hospitalization-Associated Disability in Adults Admitted to a Safety-Net Hospital

Ami Schattner, MD

The Faculty of Medicine, Hebrew University and Hadassah Medical School, Jerusalem, Israel.

J Gen Intern Med 31(5):460

DOI: 10.1007/s11606-016-3620-7

© Society of General Internal Medicine 2016

To the Editor:

The finding by Chodos et al. of significant hospitalization-associated disability (HAD) at hospital discharge even among adults as young as 55 years of age (JGIM, Dec 2015) is an important one. However, a material flaw in the current definition of HAD stands out.

While new or worsening disability in activities of daily living (ADL) is certainly a valuable and reproducible measure of functional decline and disability, it entails the important drawback of addressing HAD as if it was a purely physical phenomenon. In fact, even when the central nervous system is unaffected by prior or acute illness, a number of factors (the alien hospital environment, medications, pain, metabolic abnormalities, common delirium, stress, cortisol release, surge in inflammatory cytokines and perceived threats to both quality of life and life itself) have a substantial effect on both mood and cognition.^{1,2}

These alterations in mood and cognition share five characteristics in common: a multifaceted etiology; high prevalence in hospitalized patients; occurrence that is age-dependent, but not limited to the geriatric population; often being 'below the radar' and very often being under-recognized by physicians.³ In addition, their impact on patient's health is far-reaching.

For example, acute stress symptoms, anxiety symptoms and depression are very common among patients admitted to acute medical wards, more so if they have critical illness.² Cognitive impairment (often transient)⁴ is no less important, affecting over 30 % of medicine inpatients.³ Sicker hospitalized patients whose median age was 62 years performed similarly to children less than 10 years of age in tasks of judgment, despite near normal MMSE scores, suggesting impaired thinking and poor capacity for health-related decision-making.⁵ Later consequences of mood and cognition problems may include

reduced quality of life and lower adherence. Therefore, poor 'hard' health outcomes are likely.

Thus, a broader paradigm of HAD is indicated, viewing HAD as having both physical (ADL) and psychological (mood and cognition) elements. The latter non-physical elements deserve as much routine attention as the ADL deficits to which they contribute. This assumes particular importance after discharge, since in addition to recoverable short-term changes,⁴ cognitive decline may persist² and accelerate, and substantial depressive symptoms and anxiety (sometimes qualifying as posttraumatic stress disorder) may be identified.

Any future study focused on hospitalization-associated disability should acknowledge the existence of mood and cognitive deficits. Side by side with ADL capacity, patients' emotional and cognitive status needs to be evaluated and taken into account in providing health literacy, shared decision-making and discharge planning.

Corresponding Author: Ami Schattner, MD; The Faculty of Medicine Hebrew University and Hadassah Medical School, Jerusalem, Israel (e-mail: amischatt@gmail.com).

Compliance with Ethical Standards:

Conflict of Interest: The author declares that he/she does not have a conflict of interest.

Funding: None.

REFERENCES

1. Ehlenbach WJ, Hough CL, Crane PK, et al. Association between acute care and critical illness hospitalization and cognitive function in older men. *JAMA*. 2014;303:763–70.
2. Davydow DS, Zatzick D, Hough CL, et al. In-hospital acute stress symptoms are associated with impairment in cognition 1 year after intensive care unit admission. *Ann Am Thorac Soc*. 2013;10:450–7.
3. Raymont V, Bingley W, Buchanan A, et al. Prevalence of mental incapacity in medical inpatients and associated risk factors: cross-sectional study. *Lancet*. 2004;364:1421–7.
4. Inouye SK, Zhang Y, Han L, et al. Recoverable cognitive dysfunction at hospital admission in older persons during acute illness. *J Gen Intern Med*. 2006;21:1276–81.
5. Cassell EJ, Leon AC, Kaufman G. Preliminary evidence of impaired thinking in sick patients. *Ann Intern Med*. 2001;134:1120–3.

Published online February 19, 2016