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Gait speed in hospitalized older people: comment on “assessing gait speed in acutely ill older patients admitted to an acute care for elders hospital unit”

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Ostir et al provide compelling evidence that simple performance measures of function, like gait speed, are powerful indicators of important health care outcomes, even in acutely ill older persons.¹ Much of the prior work on performance measures was based in community dwelling older populations, where the assumption that performance measures were reliable in medically stable people was central to assumptions about predictive ability. Ostir shows that performance measures in acutely ill, medically unstable older adults retain their ability to provide important clinical information.

Building on an ever-expanding evidence base, it is now unequivocally clear that in order to understand and manage the health care needs, prognosis, and outcomes of older adults, we must incorporate indicators of function.^{2, 3} Since most older adults suffer from multiple interacting health conditions, it is simply insufficient to base services on only disease-specific guidelines and outcomes.⁴

In this era of high health care costs and financial constraints, we continue to struggle with the challenges of health care reform, especially in large government programs like Medicare and Medicaid. We are appropriately obligated to evaluate the effectiveness and efficiency of our services. Based on what we have learned from Ostir and others, it is now clear that the evidence base we need to evaluate services for older people, whether derived from clinical trials or health care system data, must account for function, including mobility function. Thus, the continued failure to incorporate measures of function into clinical trials or into health information systems represents a serious barrier to informing and improving health care for older people.

Functional status can be assessed using self-report, professional report and/or performance measures. While the first priority for practice and research with older people must be to incorporate functional status in any form, we should carefully consider the added value of performance measures of mobility function. Mobility is a key component of disability. Performance measures of mobility are safe, very brief and reliable, and as suggested in Ostir's recent work, may provide a unique perspective that is, at minimum, complementary and at times superior to reported function. Gait speed has been shown to predict multiple important outcomes, including hospitalization, disability, survival, and nursing home placement.⁵ More recently, gait speed, used as the sole indicator of frailty, predicted risk of

functional decline with hospitalization.⁶ Gait speed also appears to provide important and unique prognostic information in other clinical situations, such as in predicting outcomes of cardiac surgery.⁷

Yes, there is a need for further work and more evidence. While Ostir et al demonstrate important effects, many issues of generalizability and clinical application remain. Will gait speed retain its predictive ability in older people hospitalized for conditions other than cardiopulmonary or digestive disorders, or in persons with cognitive impairment or depression? What is the role of social support as a modifier of mobility status? Will repeated measures of gait speed help detect the common and serious problem of functional decline and mobility loss during hospitalization?⁸ While we already know a lot, how much more do we need to understand about the value of gait speed in other clinical settings such as outpatient clinics, rehabilitation programs, home health services and nursing homes? How should we interpret repeated measures of performance over time, especially over shorter periods when health is changing rapidly?⁹ If mobility status is important, independent of overall functional status, do simple self- or professional report measures of mobility status perform as well as physical performance measures?²

Nevertheless, we already know enough to begin to incorporate these measures into health care practice and research.¹⁰ It is time for clinicians, researchers and policy makers to learn how to interpret measures of function and physical performance, to consider their potential contribution to each professional's mission and goals, and to take action to incorporate them into their work.

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