

Functional Assessment – Vital for Elders

Arvind Mathur

Functional deterioration is a significant, yet often overlooked health care issue in geriatric practice. Chronic functional impairment increases with age, and thus persons over 65 years carry a disproportionate burden of disability compared with younger persons. Fifty percent of community-dwelling elders have ADL limitations, and more than three-quarters have at least one chronic illness. More than a third cannot perform their major activity independently, and 5 percent are confined to home.¹ In U.S. beyond age 75, 15 percent are confined to their homes, and over the age of 80 nearly one-quarter cannot go outdoors independently.² The figures for our country would be higher. In view of this impressive level of functional disability in the geriatric population objective, reproducible, quantifiable assessment of functional impairment should be used in designing and distributing supportive services for disabled elders.

Restriction of independent functional ability is the final common pathway for many disorders in the elderly. Thus, difficulties in mobility, cognition, continence, and nutrition are frequently the first manifestations of disease in an old person, regardless of the organ system or tissue in which the disease resides. These disease generated functional impairments in old people are early and subtle signs of untreated illnesses. These problems quickly impair the independence of the previously self-sufficient elder without necessarily producing obvious, typical signs of illness. Their detection and evaluation is essential step necessary before treatment.³

Functional status is usually conceptualized as the “ability to perform self-care, self-maintenance and physical activities.” The majority of indices of physical health and some psychological scales build their operational definitions of health on the concept of functioning: how far is the individual able to function normally and to carry on his typical daily activities?

Alterations in function are commonly assessed at three sequential stages, termed impairment, disability, and handicap. Several instruments are available for functional assessment. Understanding and using instruments to assess functional capabilities of impaired older persons are intimately associated with the successful planning and delivering of health and social care required by dependent elders. Commonly used among them are i) Index of Independence in Activities of Daily Living (ADL), ii) The Barthel Index, iii) The Physical Self-Maintenance Scale, iv) Stanford Health Assessment Questionnaire (HAQ) and v) Functional Independence Measure.

Reliable instruments for measuring patients' abilities to perform ADLs and IADLs and for determining what kind of assistance may be needed include the Katz ADL Scale and the Lawton IADL Scale. Deficits in ADLs and IADLs indicate a need for additional information about the patient's socioenvironmental situation. When elderly persons begin to need help performing these activities, their risk of becoming more dependent increases. The Barthel Index is a widely used evaluation instrument. It is simple to administer and focuses on physical limitations. However the scale is not sensitive to detect low levels of disability. Rapid Disability Rating Scale is a broad scale that rates the amount of assistance required in 18 activities. Its research orientation is reflected in the reliability and validity test, which is better than most scales. It is easy to administer, has broader scope of items and efficient administration time requirements. The HAQ is a widely used instrument. The design of the HAQ offers a scale that is broad in scope, yet brief. The available evidence shows the HAQ to have strong reliability and validity. HAQ's scoring has been designed for simplicity but with a loss of precision. The HAQ is a good descriptive instrument but poor candidate for use when mobility change is a major functional outcome.

The Functional Independence Measure (FIM) assesses physical and cognitive disability in terms of burden of care. It has been used to monitor patient

Professor, Department of Medicine, Incharge Geriatric Clinic, MDM Hospital, Dr S N Medical Collage, Jodhpur

progress and to assess outcomes of rehabilitation. It is a rating scale applicable to patients of all ages and diagnoses, by clinicians or by non-clinicians, and has been widely adopted. The FIM is not a comprehensive instrument but a basic indicator of disability and focuses on the burden of care. The level of a patient's disability indicates the burden of caring for them and items are scored on the basis of how much assistance is required for the individual to carry out activities of daily living. Several stages of rehabilitation are identified and efficiency of care may be estimated by dividing the increase in life function (e.g., measured by improvement in FIM scores) by the cost of the rehabilitation services.

The FIM is a widely used scale with proven reliability and validity. The physical components of the FIM appear comparable to the best among the other ADL instruments. The cognitive and social communication dimensions may have low sensitivity. Viewed as a brief disability measure rather than a general health instrument, it can be used as a patient assessment tool. In present issue Dey et al have assessed the impact of a multidisciplinary intervention protocol on functionality of a group of ambulatory older subjects using Functional Independence Measurement Score and Instrumental Activities of Daily Living.⁴ The tools used i.e. FIMS and IADL, in the assessment were found to be competent tools for the group comparison. The comprehensive multidisciplinary interventions improved functionality among ambulatory older subjects significantly in their study. However for our population

there is a need to develop an indigenous instrument for use as a tool in day-to-day clinical practice.

Enumerating functional impairments side by side with the problem list can facilitate matching diagnosis with lost function. A list of functional impairments and their severity will allow identification of those medical problems that are the likely cause of most troublesome functional losses for the elderly individual. Using a functionally oriented priority system is most likely to satisfy the patient and the clinician by producing important gains in independence. Functional assessment provides the common language to facilitate interdisciplinary evaluation and management of disease across disciplines.

References

1. Filner, B., and Williams, T. F. Health promotion for the elderly: reducing functional dependency. In *The geriatric imperative: an introduction to gerontology and clinical geriatrics*, edited by A. R. Somers and D. R. Fabian. Appleton-Century-Crofts, New York, 1981, pp. 187-204.
2. National Center for Health Statistics: Current estimates from the health interview survey: United States 1978. *Vital Health Stat [10]* No. 130. DHEW Publication No. (PHS) 80-1551, U.S. Government Printing Office, Washington, DC, 1980.
3. Beers, M., and Besdine, R. Medical assessment of the elderly patient. *Clin Geriatr Med* 1987; 3: 17-27.
4. Dey A B, Batra A, Gupta S, et al. Functional Independence and Improved Performance among Older Ambulatory Patients following Multidisciplinary Interventions. *Journal of The Indian Academy of Geriatrics*, 2006; 3: 93-97.