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ESSENTIALS OF CLINICAL GERIATRICS

SIXTH EDITION

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settings. They will need to be familiar with the array of resources available to meet the needs of their patients and the factors determining access to these resources. A guide to long-term care resources is presented in Chap. 15.

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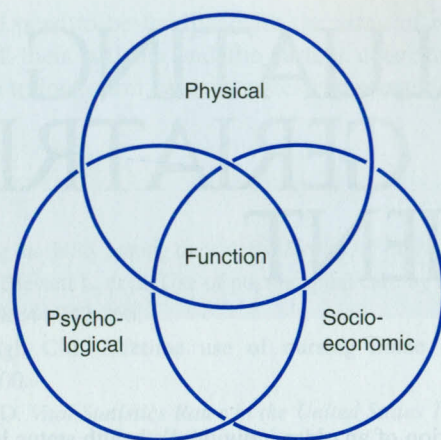
EVALUATING THE GERIATRIC PATIENT

Comprehensive evaluation of an older individual's health status is one of the most challenging aspects of clinical geriatrics. It requires sensitivity to the concerns of people, awareness of the many unique aspects of their medical problems, ability to interact effectively with a variety of health professionals, and often a great deal of patience. Most importantly, it requires a perspective different from that used in the evaluation of younger individuals. Not only are the a priori probabilities of diagnoses different, but one must be attuned to more subtle findings. Progress may be measured on a finer scale. Special tools are needed to ascertain relatively small improvements in chronic conditions and overall function compared with the more dramatic cures of acute illnesses is often possible in younger patients. Creativity is essential in order to incorporate these tools efficiently in a busy clinical practice.

The purpose of the evaluation and the setting in which it takes place will determine its focus and extent. Considerations important in admitting a geriatric patient with a fractured hip and pneumonia to an acute care hospital during the middle of the night are obviously different from those in the evaluation of an older demented patient exhibiting disruptive behavior in a nursing home. Elements included in screening for treatable conditions in an ambulatory clinic are different from those in assessment of older individuals in their own homes or in long-term care facilities.

Despite the differences dictated by the purpose and setting of the evaluation, several essential aspects of evaluating older patients are common to all purposes and settings. Figure 3-1 depicts these aspects. Several comments on addressing them are in order:

1. Physical, psychological, and socioeconomic factors interact in complex ways to influence the health and functional status of the geriatric population.
2. Comprehensive evaluation of an older individual's health status requires an assessment of each of these domains. The coordinated efforts of several different health-care professionals functioning as an interdisciplinary team are needed.



— FIGURE 3-1 — Components of assessment of older patients.

3. Functional abilities should be a central focus of the comprehensive evaluation of geriatric patients. Other more traditional measures of health status (such as diagnoses and physical and laboratory findings) are useful in dealing with underlying etiologies and detecting treatable conditions, but in the geriatric population, measures of function are often essential in determining overall health, well-being, and the need for health and social services.

Just as function is the common language of geriatrics, assessment lies at the heart of its practice. Special techniques that address multiple problems and their functional consequences offer a way to structure the approach to complicated geriatric patients. The core of geriatric practice has been considered the comprehensive geriatric assessment, but its role has been actively debated. Geriatric assessment has been tested in a variety of forms. Table 3-1 summarizes the findings from a number of randomized controlled trials of different approaches to geriatric assessment. Annual in-home comprehensive geriatric assessment as a preventive strategy demonstrated the potential to delay the development of disability and reduce permanent nursing home stays (Stuck et al., 2002). Controlled trials of approaches to hospitalized geriatric patients suggest comprehensive geriatric assessment by a consultation team with limited follow-up does not improve health or survival of selected geriatric patients (Reuben et al., 1995), but that a special acute geriatric unit can improve function and reduce discharges to institutional care (Landefeld et al., 1995). A controlled multisite Veterans Affairs (VA) trial of inpatient geriatric evaluation and management demonstrated significant reductions in functional decline without increased costs

TABLE 3-1 EXAMPLES OF RANDOMIZED CONTROLLED TRIALS OF GERIATRIC ASSESSMENT

SETTING	EXAMPLES OF ASSESSMENT STRATEGIES	SELECTED OUTCOMES*
Community/Outpatients	Social worker assessment and referral Nursing assessment and referral Annual in-home assessment by nurse practitioner Multidisciplinary clinic assessment	Reduced mortality Reduced hospital use Reduced permanent nursing home use Delayed development of disability
Hospital inpatient (specialized units)	Interdisciplinary teams with focus on function, geriatric syndromes, rehabilitation	Reduced mortality Improved function Reduced acute hospital and nursing home use
Hospital inpatient consultation	Geriatric consultation teams	Mixed results Some studies improved function and lower short-term mortality Other studies show no effects

* Not all studies show improvements in all outcomes. See text and Rubenstein et al., 1991.

(Cohen et al., 2002). Results of outpatient geriatric assessment have been mixed and less compelling (Cohen et al., 2002). However, a randomized trial of outpatient geriatric assessment with an intervention to improve adherence to the recommendations prevented functional decline (Reuben et al., 1999).

There is considerable variation in approaches to the comprehensive assessment of geriatric patients. Various screening and targeting strategies have been used to identify appropriate patients for more comprehensive assessment. These strategies range from selection based on age to targeting patients with a certain number of impairments or specific conditions. Sites of assessment vary as well,

and include the clinic, the home, the hospital, and different levels of long-term care. Geriatric assessment also varies in terms of which discipline carries out the different components of the assessment as well as in the specific assessment tools used. Despite the dramatic variation in approach to targeting, personnel used, and measures employed, a clear pattern of effectiveness has emerged. Taken together, these results are both heartening and cautioning. Systematic approaches to patient care are obviously desirable. The issue is more how formalized these assessments should be. Research suggests that the specifics of the assessment process seem to be less important than the very act of systematically approaching older people with the belief that improvement is possible.

A major concern about such assessments is efficiency. Because of the multi-dimensional nature of geriatric patients' problems and the frequent presence of multiple interacting medical conditions, comprehensive evaluation of the geriatric patient can be time consuming and thus costly. It is important to reduce duplication of effort. It is possible to have interprofessional collaboration in determining what data should be collected, but the actual data collection is best delegated to one or, at most, a few team members. Additional expertise can be brought to bear if the initial screening uncovers an area that requires it. Another crucial lesson is that assessment without follow-up is unlikely to make any difference. Thus, the term "geriatric assessment" has given way to the concept of geriatric evaluation and management. There must be strong commitment to act on the problems uncovered and to follow up long enough to be sure they have responded to the treatment prescribed.

Strategies that can make the evaluation process more efficient include the following:

1. The development of a close-knit interdisciplinary team with minimal redundancy in the assessments performed.
2. Use of carefully designed questionnaires that reliable patients and/or caregivers can complete before an appointment.
3. Incorporation of screening tools that target the need for further, more in-depth assessment.
4. Use of assessment forms that can be readily incorporated into a computerized relational database.
5. Integration of the evaluation process with case management activities that target services based on the results of the assessment.

This chapter focuses on the general aspects of assessing geriatric patients; sections on geriatric consultation, preoperative evaluation, and environmental assessments are included in the chapter.

Chapter 14 includes information on case management and other health services and Chap. 15 is devoted to the assessment and management of geriatric patients in the nursing home setting.

The concern about function as a core component of geriatrics deserves special comment. Functioning is the end result of the various efforts of the geriatric approach to care. Optimizing function necessitates integrating efforts on several fronts. It is helpful to think of functioning as an equation:

$$\text{Function} = \frac{(\text{physical capabilities} \times \text{medical management} \times \text{motivation})}{(\text{social, psychological, and physical environment})}$$

This admitted oversimplification is meant as a reminder that function can be influenced on at least three levels. The clinician's first task is to remediate the remediable. Careful medical diagnosis and appropriate treatment are essential in good geriatric care. Adequate medical management, however, is necessary but not sufficient. Once those conditions amenable to treatment have been addressed, the next step is to develop the environment that will best support the patient's autonomous function.

Environmental barriers can be both physical and psychological. It is important to recognize how physical barriers may complicate functioning for persons with various conditions (eg, stairs for a person with dyspnea, inaccessible cabinets for the wheelchair bound, etc). Psychological barriers refer especially to the dangers of risk aversion. Those most concerned about the patient may restrict activity in the name of protecting the patient or the institution. For example, hospitals are notoriously averse to risk; older patients will be restricted to a wheelchair rather than risk them falling when walking.

This risk-averse behavior may be compounded by concerns about efficiency. Personal care is personnel intensive. It takes much more time and patience to work with patients to encourage them to do things for themselves than to step in and do the task. But that pseudoefficiency breeds dependence.

The third factor relates to the concept of motivation. If the care providers believe that the patient cannot improve, they will likely induce despair and discouragement in their charges. The tendency toward functional decline may become a self-fulfilling prophecy. Indeed, the opposite belief—that improvement is quite likely with appropriate intervention—may be the critical element in the success of geriatric evaluation units. Belief in the possibility of improvement can play another critical role in geriatric care. Psychologists have developed a useful

paradigm referred to as “the innocent victim.” The basic concept is that caregivers respond in a hostile manner to those they feel impotent to help. If given a sense of empowerment, perhaps by using assessment tools and intervention strategies such as the ones provided in this book, for approaching the complex problems of older persons, care providers are likely to feel more positive toward those individuals and be more willing to work with them rather than avoiding them. The more an information system can provide feedback on accomplishments and progress toward improved function, the more the provider will feel positively about the older patient.

Table 3-6 summarizes several other important concepts about comprehensive functional assessment in the geriatric population, which were identified in a Consensus Development Conference at the National Institutes of Health (NIH, 1988). To a large extent the purpose, setting, and timing of the assessment dictate the nature of the assessment process. Table 3-7 lists the different purposes and objectives of functional status measures. Generally, functional assessment begins with a case-finding or screening approach in order to identify individuals for whom more in-depth and interdisciplinary assessment might be of benefit. Assessment is often carried out at points of transition, such as a threatened or actual decline in health status or impending change in living situation. Without this type of targeting, the assessment of older people may be time consuming and not cost-effective. Numerous standardized instruments are available to assist in the assessment process.

Instruments designed for research use may not work in clinical practice, and vice versa. There are numerous potential pitfalls in the use of standardized assessment instruments (Kane and Kane, 2000; see Table 3-6). The critical concept in using standardized instruments is that they should fit the purposes and settings for which they are intended, and there must be a solid link between the assessment process and the follow-up provision of services. In addition, the assessment process should include a clear discussion of the patient's preferences and expectations, as well as the family's expectations and willingness to provide care. The importance of functional status assessment has been highlighted by data documenting the ability of functional status measures to predict mortality in older hospitalized patients (Inouye et al., 1998).

■ Assessment Tools for Functional Status

This chapter focuses on the assessment of physical and mental function. Mental function is also discussed in Chap. 6. Table 3-8 lists examples of measures of physical functioning. Physical functioning is measured along a spectrum. For disabled persons, one may focus on the ability to perform basic self-care tasks, often referred to as activities of daily living (ADLs). The patient is assessed on the ability to conduct each of a series of basic activities. Data usually come

TABLE 3-6 IMPORTANT CONCEPTS FOR GERIATRIC FUNCTIONAL ASSESSMENT

1. The nature of the assessment should be dictated by its purpose, setting, and timing (see Table 3-7)
2. Input from multiple disciplines is often helpful, but routine multidisciplinary assessment is not cost-effective
3. Assessments should be targeted
 - a. Initial screening to identify disciplines needed
 - b. Times of threatened or actual decline in status, impending change in living situation, and other stressful situations
4. Standard instruments are useful, but there are numerous potential pitfalls
 - a. Instruments should be reliable, sensitive, and valid for the purposes and setting of the assessment
 - b. How questions are asked can be critically important (eg, performance vs. capability)
 - c. Discrepancies can arise between different informants (eg, self-report vs. caregiver's report).
 - d. Self- or caregiver's report of performance, or direct observation of performance may not reflect what the individual does in everyday life.
 - e. Many standard instruments have not been adequately tested for reliability and sensitivity to changes over time
5. Open-ended questions are helpful in complementing information from standardized instruments
6. The family's expectations, capabilities, and willingness to provide care must be explored
7. The patient's preferences and expectations should be elicited and considered paramount in planning services
8. A strong link must exist between the assessment process and follow-up in the provision of services

from the patient or from a caregiver (eg, a nurse or family member) who has had a sufficient opportunity to observe the patient. In some cases, it may be more useful to have the patient actually demonstrate the ability to perform key tasks. Grading of performance is usually divided into three levels of dependency: (1) ability to perform the task without human assistance (one may wish to distinguish those persons who need mechanical aids like a walker but are still independent);

TABLE 3-7 PURPOSES AND OBJECTIVES OF FUNCTIONAL STATUS MEASURES

PURPOSE	OBJECTIVES
Description	Develop normative data Depict geriatric population along selected parameters Assess needs Describe outcomes associated with various interventions
Screening	Identify from among population at risk those individuals who should receive further assessment and by whom
Assessment	Make diagnosis Assign treatment
Monitoring	Observe changes in untreated conditions Review progress of those receiving treatment
Prediction	Permit scientifically based clinical interventions Make prognostic statements of expected outcomes on the basis of given conditions

(2) ability to perform the task with some human assistance; and (3) inability to perform, even with assistance. Distinguishing "independent without difficulty" from "independent with difficulty" may provide complementing prognostic information (Gill, Robison, and Tinetti, 1998).

It is helpful to appreciate that different disciplines approach functional measurement differently. A physician for example, may be content to ascertain whether a person can dress herself with or without assistance. By contrast, an occupational therapist might subdivide the act of getting dressed into a series of specific steps (eg, choosing appropriate clothes, getting them out of the closet or drawers, putting on different types of clothing, using various fasteners, etc). Likewise, performance can be further assessed in terms of the time required to complete the task and the skill with which it was done.

Commonly used tools for assessing physical function are included in the appendix. There may be discrepancies between patient's or caregiver's reports and what the individuals actually do in their everyday life. Moreover, there may be differences between reported physical functional status and actual measures of physical performance. Reuben's physical performance test is one example of a practical assessment that provides insights into actual performance and prognostic information (Reuben and Siu, 1990). (The physical performance test is

TABLE 3-8 EXAMPLES OF MEASURES OF PHYSICAL FUNCTIONING

Basic ADLs
Feeding
Dressing
Ambulation
Toileting
Bathing
Transfer (from bed and toilet)
Continence
Grooming
Communication
IADLs
Writing
Reading
Cooking
Cleaning
Shopping
Doing laundry
Climbing stairs
Using telephone
Managing medication
Managing money
Ability to perform paid employment duties or outside work (eg, gardening)
Ability to travel (use public transportation, go out of town)

ADL, activity of daily living; IADL, instrumental ADL.

included in the appendix.) In general, performance tests measure what occurs under standardized conditions, whereas reports address what is done under actual living conditions; hence, the latter may offer insights into the effects of the environment as well as the patient's abilities. Other performance-based assessments of gait and balance are discussed in Chap. 9.

In addition to these general geriatric measures of functional status, other functional assessment tools are commonly used in different settings. Examples include the following:

1. The Short Form 36—a global measure of function and well-being that is increasingly being used in outpatient settings. This measure has a disadvantage in the frail geriatric population because of a ceiling effect—that is, it does not distinguish well between sick and very sick older people.

2. The minimum data set (MDS)—a comprehensive assessment mandated on admission with quarterly updates in Medicare-/Medicaid-certified nursing facilities.
3. The functional independence measure (FIM, now part of the rehabilitation measure IRFPAI)—a detailed assessment tool commonly used to monitor functional status progress in rehabilitation settings.
4. The outcome and assessment information set (OASIS)—a comprehensive data collection system for use in home health care; it is mandatory for Medicare beneficiaries.

A new data system (CARE) is under development, which will replace MDS, OASIS, and IRFPAI, and introduce a common measurement system for all post-acute care.

A structured assessment of cognitive function should be part of every complete geriatric functional assessment. Because of the high prevalence of cognitive impairment, the potential impact of such impairment on overall function and safety and the ability of patients with early impairments to mask their deficits, clinicians must specifically attend to this aspect of functional assessment. At a minimum, assessment should include a test for orientation and memory. A standardized geriatric mental status test is included in the appendix (the Folstein Mini-Mental State Examination). Although these tests do not probe the variety of intellectual functions appropriate for a more detailed assessment, they are quick, easy, scorable, and reliable. More detailed assessment of cognitive function is discussed in Chap. 6.

ENVIRONMENTAL ASSESSMENT

We emphasized earlier that patient function is the result of innate ability and environment. The clinician must, therefore, be particularly concerned with the older patient's environment. For many patients, the assessment should include an evaluation of the available and potential resources to maintain functioning. Just as physicians comfortably prescribe drugs, they should also be prepared to prescribe environmental interventions when necessary.

Rehabilitation therapists (ie, physical, occupational, speech) are especially skilled at functional assessment, developing and implementing rehabilitative plans of care targeted at potentially remediable functional impairments, and making specific recommendations about environmental modifications that can enhance safety and functional ability. An environmental prescription may include alterations in the physical environment (eg, ramps, grab bars, and elevated toilet seats), special services (eg, meals on wheels, homemaking, home nursing), increased social contact (eg, friendly visits, telephone reassurance, participation in recreational activities), or provision of critical elements (eg, food or money).

An environmental assessment by an occupational therapist for essentially asymptomatic older persons has been shown to significantly reduce subsequent hospital use (Clark et al., 1997).

The ability to identify the environmental interventions and function supports needed to maintain in the community may be the essential difference between enabling an older person to remain at home versus transferring the person to an institution. Although identifying the need is not tantamount to providing the resource, it is an important first step.

ASSESSMENT FOR PAIN

Guidelines published by the American Geriatrics Society recommend that on initial presentation or admission of an older person to any health-care service, the patient should be assessed for evidence of persistent pain (AGS Panel on Persistent Pain in Older Persons, 2002). Patients with persistent pain that may affect physical function, psychosocial function, or other aspects of quality of life should undergo a comprehensive pain assessment. Tables 3-9 and 3-10 list important aspects of the history and physical examination in assessment of pain, respectively. For patients who are cognitively intact, assessment of pain should be by direct questioning of the patient. Quantitative assessment of pain should be recorded by use of a standard pain scale, such as a visual analog scale, where a patient can indicate where along the continuum their pain lies. A verbal scale of 0 to 10, with 0 meaning no pain and 10 meaning the worst pain possible, is frequently used. Other scales, pain thermometer and faces, studied in older populations, are illustrated in Fig. 3-2. In cognitively impaired and nonverbal patients,

TABLE 3-9 IMPORTANT ASPECTS OF THE HISTORY IN ASSESSMENT OF PAIN

1. Characteristics of the pain
2. Relation of pain to impairments in physical and social function
3. Analgesic history (present, previous, prescribed, over-the-counter, alternative remedies, alcohol use, side effects)
4. Patient's attitudes and beliefs about pain and its management
5. Effectiveness of treatments
6. Satisfaction with current pain management
7. Social support and health-care accessibility

