GERIATRIC FUNCTIONAL ASSESSMENT

An educational exercise with a Standardized Patient Instructor emphasizing functional status assessment and communication skills relevant to the care of older patients.

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Students:
Please review this material carefully prior to the exercise and bring your Tools for Geriatric Care pocket card.

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INTRODUCTION

All physicians who care for adults are caring for an increasingly large number of older patients. Older patients are more likely than younger patients to have unrecognized comorbidities and impairments that increase their risk of medical morbidity, functional decline, and mortality. Often, older patients' comorbidities are unrecognized by health care professionals since they may not be the primary focus of clinical encounters, and are unrecognized or not mentioned by the patients themselves.

Functional impairments and cognitive and affective problems are particularly prevalent among older patients, and can be improved with early recognition and treatment.

Physicians who care for older adults should be able to recognize functional, cognitive, and affective impairment among their patients to enable appropriate management or referral. Information and tools are now available for all physicians to rapidly and accurately identify clinically important impairments among older patients.

Completing brief assessment of older patients requires effective use of a broad range medical interviewing skills. Application of a few simple interviewing techniques will substantially enhance the amount and accuracy of information obtained in speaking with older patients.

GOALS AND INTENDED LEARNING OUTCOMES

Goals

The goals of this Standardized Patient Instructor (SPI) exercise are to enable students to develop their skills in:

1. *Accurately* assessing the functional, cognitive, and affective status of older patients, and

2. *Effectively* communicating with older adults.

This is a *learning exercise,* not a formal evaluation exercise. Learners will be given immediate feedback on their performance, with specific tips for improvement.

Intended Learning Outcomes

Specifically, by the end of the exercise the learner should be able to:

1. Ask a brief series of questions to identify impairments in Basic Activities of Daily Living and Instrumental Activities of Daily Living (including medication use).

2. Ask about the presence or absence of falls.

3. Screen patients for gait impairment and fall risk using the Timed Up and Go Test.

4. Screen patients for cognitive impairment by administering and interpreting the Mini-Cog Examination.

5. Screen patients for major depressive illness using a two-question screener.

6. Use appropriate interviewing techniques to facilitate communication with older patients.

7. Demonstrate respect for older patients.

GUIDELINES FOR THE
STANDARDIZED PATIENT INSTRUCTOR INTERVIEW

Case scenario
You are rotating on a busy inpatient service. It is 10:00 AM and you have completed morning work rounds on the 15 inpatients on your service. You have the next hour to do most of the day's work (e.g., schedule diagnostic tests for your patients, prepare for teaching or work rounds, write the daily orders for your patients).

Mr. or Ms. Gerhard is an 85-year-old patient who is to be discharged that morning. Discharge orders were written last night, and the patient looked fine when you saw him/her during your morning work rounds. The patient reported that they were "ready to go." However, a floor nurse has just informed you that Mr./Ms. Gerhard's daughter just called to say they cannot she can not the patient home. She didn't get many details, but reports that the patient's daughter said that she "couldn't handle him/her" and that the patient would be "too much to take care of" at home. The daughter is on jury duty and will not be available for you to call her until that evening.

Your goal during this patient encounter is to learn what problems Mr./Ms. Gerhard might have in functioning well at home. You set aside what you're doing and enter the room...

Interview Guidelines
You will have 30 minutes to interview the patient. Mr./Ms. Gerhard will be seated in the exam room, dressed and "ready to go." Begin the interview with a statement like *"Hello, Mr./Ms. Gerhard. I understand you're planning to go home. I need to review some things with you before your discharge."* Your next questions should be directed to assessing physical function and the patient's capacities at home just prior to hospital admission.

During the interview, you will be expected to appropriately *screen* for impairments in:
- Activities of Daily Living
- Instrumental Activities of Daily Living
- Gait impairment (Timed Up and Go)
- Cognition (Mini-Cog)
- Affect (Depression) (Two-Question Screener)

During the interview you are encouraged to use the Tools for Geriatric Care pocket card, which contains information on screening for many of these impairments.

When you feel you have collected the information needed for this assessment, you will close the interview by stating *"Thank you for answering these questions. I will discuss this information with the attending physician and we will return shortly."*

After the interview is completed, the patient will provide feedback on your performance.

Assessing Patients' Functional Status

Definition: Functional impairment is defined as difficulty performing, or requiring the assistance of another person to perform, one or more of the following Activities of Daily Living (ADL):

Activities of Daily Living (ADLs)*	Instrumental Activities of Daily Living (IADLs)**
Bathing	*Administering own medication*
Dressing	*Grocery shopping*
Toileting	*Preparing meals*
Transfers	Using the telephone
Grooming	Driving and transportation
Feeding	Handling own finances
	Housekeeping
	Laundry

Note: italicized items are most important

*ADLs are the essential elements of self-care. Inability to independently perform even one activity may indicate a need for supportive services.

**IADLs are associated with independent living in the community and provide a basis for considering the type of services necessary in maintaining independence.

Prevalence:

Approximately 75% of persons over age 75 limit their activities due to functional impairment each year; 40% experience restricted activity in two consecutive months. Almost 50% of people 85 years of age and older require assistance in one or more ADL. As many as 25% of older community-dwelling adults have at least one impairment in IADLs.

Among patient admitted to general medical hospital units, 40% have at least one ADL impairment, 65% have one or more IADL impairments, and 30% have mobility impairment.

Clinical implications:

ADL impairment is a stronger predictor of hospital outcomes (functional decline, length of stay, institutionalization, and death) than admitting diagnoses, Diagnosis Related Group, and other physiologic indices of illness burden. ADL impairment is also a risk factor for nursing home placement, emergency room visits, and death among community-dwelling adults.

Approximately 25% to 35% of older patients admitted to the hospital for treatment of acute medical illness lose independence in one or more ADL. Risk factors for loss of independence in ADLs during hospitalization include advanced age, cognitive impairment, and IADL impairments at admission.

Screening for Cognitive Impairment

Prevalence:
The prevalence of clinically significant cognitive impairment is roughly 3% among persons 65 years of age or older, and doubles in prevalence every 5 years reaching 40-50% among persons 90 years of age or older. Most patients with dementia do not complain of memory loss or even volunteer symptoms of cognitive impairment unless specifically questioned.

Clinical implications:
Many elderly patients seen by surgical and medical specialists and subspecialists have significant cognitive impairment, often undiagnosed. Unrecognized cognitive impairment is a risk factor for medication non-adherence, poor compliance with behavioral recommendations, difficulty navigating the health care system, and caregiver stress. The most common causes of cognitive impairment in elderly patients are dementia, depression, and delirium.

Assessment:
Patients with suspected cognitive impairment should be screened for delirium and depression. *Delirium is a disorder of attention, and should be considered in patients with waxing and waning attention or level of consciousness.* Delirium is commonly a side effect of medications, and often unrecognized by clinicians.

Delirium is suggested by the presence of cognitive impairment with:
- Acute onset (hours to days) and fluctuating course
- Inattention (difficulty maintaining focus).
- Disorganized thinking OR Altered level of consciousness

Screening for depression is discussed below ("Screening for depression").

To diagnose dementia, a thorough history and physical examination assist in the diagnosis of dementia and the cause of dementia.

Substantial evidence exists, however, that several rapid screening tests – some requiring less than a minute to administer – can be used to *rule out* dementia:

Screening test	Negative Likelihood Ratio
Mini-Cog	<0.1
Min-Mental State Examination (MMSE)	
Score >=26	0.10
3-item recall at one minute	0.06-0.1
Serial 7's	0.06
Clock Drawing Test	0.1-0.2

Clinical applications:

The brief screening tools described above can be used in a matter of a few minutes to substantially *rule out* cognitive impairment due to dementia.

> Example: An 80-year old patient whom you are seeing in follow-up after surgery, reports that he has not taken his medications as prescribed. You find that he is able to perform the 3-item recall or serial 7's. You can conclude that the probability of cognitive impairment in this patient is <5%, and other causes of poor medication adherence must be sought.

(The average 80-year-old has a 20-30% probability of having clinically significant cognitive impairment. At a pre-test probability of 25%, the ability to perform the 3-item recall or serial 7's reduces the patient's probability of dementia to 2%.)

Clinicians should screen older patients to *rule out* cognitive impairment (including dementia) who:

- Are age 80 years or above
- Are undergoing elective surgery
- Have recently been discharged from the hospital
- Undergo unexplained decline in functional status
- Have unexplained sleep difficulties or behavioral disturbances
- Have poor adherence with medical or behavioral regimens

Patients who *rule in* (score positive) on any screening test for dementia should be referred for further evaluation.

Screening for Depression

Prevalence:
Among community-dwelling older persons the prevalence of major depressive illness is fairly low, at 1%-2%. However, 6% to 10% of older persons seen in ambulatory primary care settings have major depression. Among older patients requiring inpatient care estimates of the prevalence of major depression range from 11% to 45%. Minor, or subsyndromal, depression is even more prevalent, affecting 8% to 40% of medical outpatients. Approximately half of patients with late-life depression are suffering their first episode.

Persons aged 65 and over represent less than 13% of the populations but account for 25% of suicides. More than 75% of older adults who commit suicide were suffering from a major depression; a physician had seen the vast majority within 1 month of suicide. Risk factors for late-life suicide include depression, comorbid physical illness, living alone, male gender, and alcoholism.

Clinical implications:
One to two out of every five older inpatients suffer from depression. Depression lowers patients' quality of life and contributes to poor adherence. Major and minor depression are treatable conditions in elderly patients, with response rates comparable to those in younger populations.

Assessment:
Experienced clinicians should carry out full assessment of older adults for depressive disorders. Medical disorders that can mimic depression include apathetic hyperthyroidism and apathy accompanying other medical conditions such as malignancy, Parkinson's disease, and dementia. Depression commonly accompanies major medical illness. Depression complicating medical illness can be particularly difficult to recognize, since somatic symptoms are more common presenting complaints of depressed elderly patients than among younger populations.

A number of tools exist to help screen for depression among older patients.

Screening Questions	Response	Negative-Likelihood Ratio
"Do you often feel sad or depressed?"	No	0.25
"During the past month, have you often been bothered by feeling down, depressed, or hopeless?" and "During the past month, have you often been bothered by little interest or pleasure in doing things?"	No to both	<.01
Geriatric Depression Scale	< 6	0.30

<u>Geriatric Depression Scale (GDS)</u> is a 15-item questionnaire that can be completed in writing or during an interview. Thus, while it is too long for non-primary care clinicians to administer in the office, it may be feasible to administer to high-risk patients in writing before or after a visit.

Clinical applications:

Screening instruments for depression should be used primarily to *rule out* depression. Patients who *rule in* using screening instruments should be evaluated further, or referred for further evaluation.

> Example: A 70-year-old woman sees you for evaluation for elective surgery. Review of symptoms is negative except that she is not sleeping well and has felt fatigued much of the time for the past year. The remainder of the history, physical exam, and labs are unremarkable. You ask the patient the two screener questions above, to which she answers "No". You now know that her probability of major depression is <5%, and no further evaluation for depression is necessary prior to surgery.

Clinicians screen for depression older patients who:
- Are 80 years of age or older
- Complain of sleep disturbance, lack of energy, poor appetite, or "just feeling bad".
- Suffer a functional decline
- Have difficulty taking medications

Evaluating Patients with Gait Instability or Falls

Prevalence:
From 8 to 19% of non-institutionalized older adults have difficulty walking or require the assistance of another person or special equipment to walk. Walking disability increases with age, from about 6% of persons aged 65-69 years to about 40% among persons aged 85 or older. In older adults with diseases such as arthritis, 35% admit to difficulty in walking one-quarter mile.

Between 30% and 40% of community-dwelling older persons fall each year. Among those who have fallen in the past year, the annual incidence of falls is close to 60%. About half of all persons in long-term care settings fall each year.

Clinical implications:
Complications resulting from falls are the leading cause of death from injury in older men and women. While most falls result in some soft tissue injury, 10 to 15% of falls result in a fracture or other serious injury. Falls are associated with subsequent decline in functional status, increased likelihood of nursing home placement, and increased use of medical services. Approximately 40-70% of fallers develop fear of falling. Of those elderly persons who fall, only half are able to get up without help.

Assessment:
Screening for gait instability/risk of falls: "**Timed Get Up and Go**" test
Just before the test, open the exam room door and place a marker on the floor ten feet from the patient's chair.

To test the patient, give the following instructions:
- Rise from the chair
- Walk to the line on the floor (10 feet)
- Turn
- Return to the chair
- Sit down again

Use a standard armchair. Place the line ten feet from the chair. The score is the time taken in seconds to complete the task. The subject is encouraged to wear regular footwear and to use any customary walking aid. No physical assistance is given. Have the subject walk through the test once before being timed, to become familiar with the test. Explain to the patient that you will then time them and have them complete the test for a second time.

Normal time required to complete test: less than 10 seconds. Further evaluation required if test not performed in 20 seconds. Patients who require more than 20 seconds for this test have limited physical mobility, may be at risk for falls and may require assistance from others for many mobility tasks including basic transfers.

Patients who have fallen should be referred to clinicians with skills and experience in gait and falls evaluation and management.
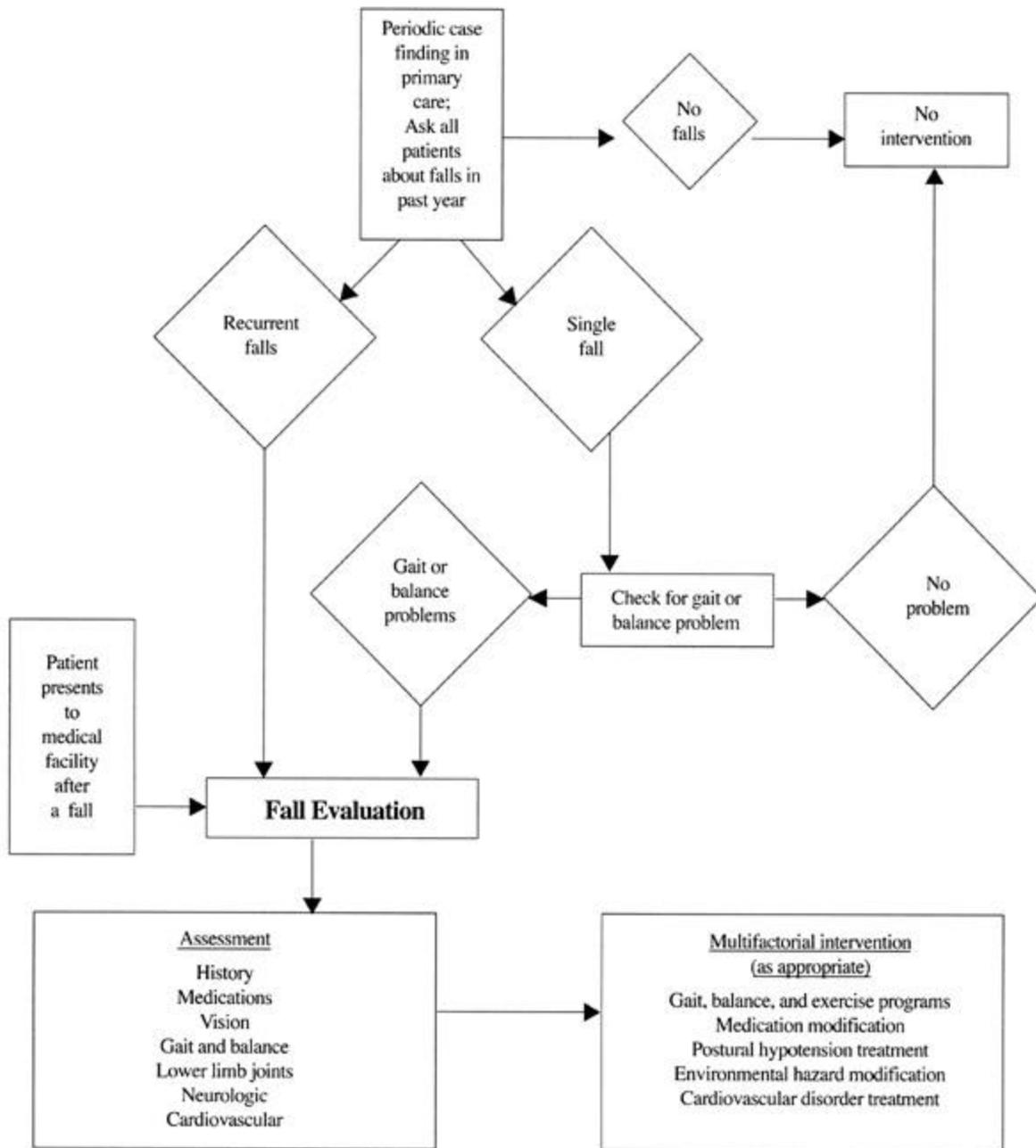
Clinical applications:

All older patients who are under the care of a health professional or caregiver should be asked at least once a year about falls or near-falls.

Older persons who report a single fall should undergo the "Timed Up and Go" test. Those demonstrating no difficulty or unsteadiness AND who complete the test in 10 seconds or less need no further assessment. Those who require more than 20 seconds to complete the maneuver should undergo further evaluation. Those with scores between 10 and 20 seconds are at intermediate risk; further evaluation should be considered.

Persons who have fallen more than once in the past year, have abnormalities of gait or balance, or both, should be referred to clinicians with skills and experience in gait and falls evaluation and management.

Evaluating patients who have fallen
An algorithm summarizing the assessment and management of falls is provided:

| Periodic case finding in primary care; Ask all patients about falls in past year | → | No falls | → | No intervention |

Recurrent falls

Single fall

Gait or balance problems

Check for gait or balance problem

No problem

Patient presents to medical facility after a fall → **Fall Evaluation**

Assessment
History
Medications
Vision
Gait and balance
Lower limb joints
Neurologic
Cardiovascular

→

Multifactorial intervention
(as appropriate)
Gait, balance, and exercise programs
Medication modification
Postural hypotension treatment
Environmental hazard modification
Cardiovascular disorder treatment

Communicating with Older Patients

Background:
The potential for communication barriers in interviewing older persons is always present, but can be minimized by the use of a few routine measures to make the environment of the exam room appropriate to the needs of the patient and the physician (Chodosh et al., 1997). These communication problems are in most cases due to unrecognized problems with vision and hearing.

Tips:
A number of very simple suggestions to maximize the likelihood of a meaningful exchange with an older person follow:
   - Do not sit in front of a window or other light source.
   - Facilitate patient's wearing glasses (if they have them).
   - Use a well-lighted room.
   - Eliminate as much extraneous noise as possible (especially nearby radios or TVs).
   - Speak slowly in an even tone. Ask the patient if he or she can understand you.
   - Face the patient, sitting at eye level, allowing the patient at all times to see your lips.
   - If necessary, be prepared with proper equipment to write questions out in large block printing.
   - Go slowly, leaving enough time for the patient to answer.

Open-ended interviewing:
There are at least two dangers associated specifically with interviewing the older patient in the typical closed ended style. One is the pace of questioning. Formulation of a response may take longer for older persons, so there is a tendency to "move on" in the interview before useful information is revealed. The other problem is the assumption that this slower response is a sign of dementia when the patient may only be trying to formulate a well thought out answer. Therefore misinformation may also be the results of a very directive interview style. Even when armed with substantial information obtained prior to the interview, the encounter has to be approached carefully.

In the case scenario on Assessing and Communicating with Older Adults, for example, a few open-ended questions may give the interviewer an early clue about where the greatest problems in functioning at home lie. Useful questions that are leading while remaining open-ended might include:

   - *"How would you describe your life at home?"*
   - *"Can you tell me what your typical day at home is like"*

Potentially relevant responses should be followed up with more open-ended questions:

   - *"What do you mean by that?"*
   - *"That would be very frightening for most people."*
   - *"That sounds difficult."*
   - *Silence (count to 6000 by 1000's)*

Assessment Tools

Functional impairment

Ask: "*Do you have difficulty or require assistance with any of the following?*"

Activities of Daily Living (ADLs)*	Instrumental Activities of Daily Living (IADLs)**
Bathing	*Administering own medication*
Dressing	*Grocery shopping*
Toileting	*Preparing meals*
Transfers	Using the telephone
Grooming	Driving and transportation
Feeding	Handling own finances
	Housekeeping
	Laundry

Note: italicized items are most important

***ADLs** are the essential elements of self-care. Inability to independently perform even one activity may indicate a need for supportive services.

****IADLs** are associated with independent living in the community and provide a basis for considering the type of services necessary in maintaining independence.

Gait instability/risk for falls

Ask: *"Have you fallen in the past year?"*

Timed Up and Go Test:

To test the subject, give the following instructions:
- Rise from the chair
- Walk to the line on the floor (10 feet)
- Turn
- Return to the chair
- Sit down again

Use a standard armchair. Place the line ten feet from the chair. The score is the time taken in seconds to complete the task. The subject is encouraged to wear regular footwear and to use any customary walking aid. No physical assistance is given. Have the subject walk through the test once before being timed, to become familiar with the test.

Persons who take 10 seconds or less to complete this sequence of maneuvers are at low risk of falling. Persons who take >20 seconds to complete this sequence are at high risk of falling.

Cognitive impairment
Mini-Cog:
Consisting of two parts: 3-item recall plus clock draw test (CDT).

1. Instruct the patient to listen carefully as you name 3 unrelated objects and then to repeat the object names.

2. Instruct the patient to draw the face of a clock, either on a blank sheet of paper, or on a sheet with the clock circle already drawn on the page. After the patient puts the numbers on the clock face, ask him or her to draw the hands of the clock to read a specific time, such as 11:20. These instructions can be repeated, but no additional instructions should be given. Give that patient as much time as needed to complete the task. The CDT serves as the recall distractor.

3. Ask the patient to repeat the 3 previously presented object names.

Scoring

Give 1 point for each recalled word after the CDT distractor. Score 0–3.

The CDT is considered normal if all numbers are present in the correct sequence and position, and the hands readably display the requested time.
- A score of 0 indicates dementia (regardless of CDT results).
- A score of 1 or 2 with an abnormal CDT indicates dementia
- A score of 1 or 2 with a normal CDT indicates absence of dementia
- A score of 3 indicates absence of dementia (regardless of CDT results).

Major Depressive Illness
Two-question screener:
1) *"During the past month, have you often been bothered by feeling down, depressed, or hopeless?"*

2) *"During the past month, have you often been bothered by little interest or pleasure in doing things?"*

Test is negative for patients who respond "no" to *both* questions.

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