Geriatric Care

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Clinical Scenario

An 81-year-old woman who is repeatedly falling is brought to the office by her daughter. The elderly mother has been falling repeatedly for at least 3 months. The falling has been getting progressively worse, and the patient's daughter is very concerned about the possibility of her mother "breaking her hip." On examination, the patient is a frail, elderly woman in no acute distress. She appears somewhat depressed. Her Mini-Mental State Examination score is 27. The patient's blood pressure is 180/75 mm Hg. Her pulse is 84 beats per minute and irregular. No other abnormalities are found.

GOALS OF CARE FOR OLDER ADULTS

Short-term issues: Focus on immediate needs to maintain or restore current health status; may be the sole focus for patients at the end of life.

- ❑ Symptom management
- ❑ Care coordination
- ❑ Personal safety
- ❑ Evaluate the living situation

GOALS OF CARE FOR OLDER ADULTS

Mid-range issues: Address needs over the subsequent one to five years.

- ❑ Preventive care
- ❑ Disease management
- ❑ Psychological issues
- ❑ Coping strategies

Long-term issues: For older adults who are currently healthy and high-functioning.

- ❑ Plans to be implemented at the time of eventual decline

PREVENTION FOR OLDER ADULTS

Healthy lifestyle

Physical activity

- The AHA/ACSM guidelines emphasize a graduated or stepwise introduction of physical activity to improve safety and adherence.

- An individualized "activity plan" should recommend levels of physical activity and define how the individual will meet them

- Specific exercises fall into four categories: *aerobic, muscle strengthening, flexibility, and balance.*

Healthy lifestyle

Tobacco use

- Older adults should be questioned about smoking and counseled on how to quit smoking if they currently smoke.

- Several smoking cessation techniques are effective in general clinical practice, including *clinician recommendation, formal counseling, and pharmacotherapy*

Healthy lifestyle

Alcohol

- The American Geriatrics Society guidelines suggest specific questioning regarding the frequency and quantity of alcohol use, followed by asking the CAGE questions (Cut down, Annoyed, Guilty, Eye-opener) to identify patients with alcohol-related problems

- Risk factors for alcohol abuse among older adults include bereavement, depression, anxiety, pain, disability, and a prior history of alcohol use.

Aspirin for primary prevention

- The USPSTF advises discussing potential benefits and harms with adults age 60 to 69 regarding daily low-dose aspirin, noting that benefit is more likely in those with a 10-year cardiovascular risk of 10 percent who have a life expectancy of at least 10 years and are not at increased risk for bleeding.

- Evidence is insufficient to assess balance of benefits and risks for those over age 70.

- Guidelines from the American College of Cardiology/American College of Gastroenterology/AHA suggest using a proton pump inhibitor (PPI) for all patients over 60 years of age who are maintained on chronic aspirin therapy.

IMMUNIZATION

Immunization	
Tetanus-diptheria vaccine	▪ Booster every 10 years in patients who have received primary series (alternative: booster once after age 50); Tdap once
Influenza vaccine	▪ Annual vaccination
Pneumococcal vaccine (PCV13 and PPSV23)	▪ Give PCV13 followed by PPSV23 6 to 12 months later, once after age 65 ▪ Revaccinate PPSV23 once after age 65 if an initial vaccination was given before age 65 and five years have elapsed since the first dose
Herpes zoster vaccine	▪ One-time vaccination after age 50

CANCER SCREENING

Cancer screening	▪ Key considerations in older adults:
	▪ Life expectancy: Will this patient live long enough to benefit?
	▪ Potential harms: Procedural complications, anxiety, cost, and overdiagnosis
	▪ Individual patient preference
Breast cancer	▪ Shared decision-making; if woman opts to be screened, biennial mammography if life expectancy is at least 10 years
Colorectal cancer	▪ Annual FOBT versus ▪ Screening colonoscopy every 10 years versus ▪ Flexible sigmoidoscopy every five years as long as life expectancy is at least five years
Cervical cancer	▪ May safely discontinue Pap smears at or after age 65 after three consecutive normals within a 10-year period ▪ May discontinue after hysterectomy for benign indication
Lung cancer	▪ Annual low-dose chest CT scan for high-risk individuals to age 80 years; discontinue if person has not smoked for 15 years or if life expectancy is limited

Cardiovascular screening

Blood pressure	▪ Measure annually ▪ If treatment initiated, monitor orthostatic blood pressure, renal function, and electrolytes

Lipids	▪ Screen and treat older adults with CAD risk exceeding 10% over 10 years

Abdominal aortic aneurysm (AAA)	▪ One-time screening ultrasound in men aged 65 to 75 with any history of smoking or family history of AAA requiring repair
Diabetes	▪ Screen adults (to age 70) with BMI $\geq$25 kg/m^2, hypertension or hyperlipidemia

Functional and psychosocial evaluation

Functional Impairment

Table 18–1 INSTRUMENTAL ACTIVITIES OF DAILY LIVING (IADL) AND ACTIVITIES OF DAILY LIVING (ADL)

IADL	ADL
Transportation	Bathing
Shopping	Dressing
Cooking	Eating
Using the telephone	Transferring from bed to chair
Managing money	Continence
Taking medications	Toileting
Housecleaning	
Laundry	

Katz index of independence in activities of daily living

Activities	Independence	Dependence
Points (1 or 0)	**Points (1)** ***NO* supervision, direction, or personal assistance**	**Points (0)** ***WITH* supervision, direction, personal assistance, or total care**
Bathing POINTS:_____	**(1 point)** Bathes self completely or needs help in bathing only a single part of the body, such as the back, genital area, or disabled extremity.	**(0 points)** Needs help with bathing more than one part of the body, getting in or out of the tub or shower. Requires total bathing.
Dressing POINTS:_____	**(1 point)** Gets clothes from closets and drawers and puts on clothes and outer garments complete with fasteners. May have help tying shoes.	**(0 points)** Needs help with dressing self or needs to be completely dressed.
Toileting POINTS:_____	**(1 point)** Goes to toilet, gets on and off, arranges clothes, cleans genital area without help.	**(0 points)** Needs help transferring to the toilet and cleaning self or uses bedpan or commode.
Transferring POINTS:_____	**(1 point)** Moves in and out of bed or chair unassisted. Mechanical transferring aides are acceptable.	**(0 points)** Needs help in moving from bed to chair or requires a complete transfer.
Continence POINTS:_____	**(1 point)** Exercises complete self-control over urination and defecation.	**(0 points)** Is partially or totally incontinent of bowel or bladder.
Feeding POINTS:_____	**(1 point)** Gets food from plate into mouth without help. Preparation of food may be done by another person.	**(0 points)** Needs partial or total help with feeding or requires parenteral feeding.
Total points:_____		

6 points: High (patient independent).
0 points: Low (patient very dependent).

The Lawton instrumental activities of daily living scale

Activities	Points
Ability to use telephone	
1. Operates telephone on own initiative; looks up and dials numbers	1
2. Dials a few well-known numbers	1
3. Answers telephone, but does not dial	1
4. Does not use telephone at all	0
Shopping	
1. Takes care of all shopping needs independently	1
2. Shops independently for small purchases	0
3. Needs to be accompanied on any shopping trip	0
4. Completely unable to shop	0
Food preparation	
1. Plans, prepares, and serves adequate meals independently	1
2. Prepares adequate meals if supplied with ingredients	0
3. Heats and serves prepared meals or prepares meals, but does not maintain adequate diet	0
4. Needs to have meals prepared and served	0
Housekeeping	
1. Maintains house alone with occasion assistance (heavy work)	1
2. Performs light daily tasks such as dishwashing, bed making	1
3. Performs light daily tasks, but cannot maintain acceptable level of cleanliness	1
4. Needs help with all home maintenance tasks	1
5. Does not participate in any housekeeping tasks	0

Activities	Points
Laundry	
1. Does personal laundry completely	1
2. Launders small items, rinses socks, stockings, etc	1
3. All laundry must be done by others	0
Mode of transportation	
1. Travels independently on public transportation or drives own car	1
2. Arranges own travel via taxi, but does not otherwise use public transportation	1
3. Travels on public transportation when assisted or accompanied by another	1
4. Travel limited to taxi or automobile with assistance of another	0
5. Does not travel at all	0
Responsibility for own medications	
1. Is responsible for taking medication in correct doses at correct time	1
2. Takes responsibility if medication is prepared in advance in separate doses	0
3. Is not capable of dispensing own medication	0
Ability to handle finances	
1. Manages financial matters independently (budgets, writes checks, pays rent and bills, goes to bank); collects and keeps track of income	1
2. Manages day-to-day purchases, but needs help with banking, major purchases, etc	1
3. Incapable of handling money	0

Scoring: For each category, circle the item description that most closely resembles the client's highest functional level (either 0 or 1).
A summary score ranges from 0 (dependent, requires significant assistance to live in the community) to 8 (independent, no assistance required to maintain self in community).

Activities of daily Living

ADL	Independent	Assisted	Dependent
Bathing (sponge, shower, or tub)			
Dressing			
Toileting			
Transfer (in and out of bed and chair)			
Continence			
Feeding			

قياس القدرة على تأدية الأنشطة اليومية

هل تستطيع الاستحمام:	بدون مساعدة	بمساعدة	بمساعدة كاملة	
هل تستطيع ارتداء ملابسك وخلعها:	بدون مساعدة	بمساعدة	بمساعدة كاملة	
هل تستطيع التبول والتبرز:	بدون مساعدة	بمساعدة	بمساعدة كاملة	
هل تستطيع الانتقال من والى السرير او الكرســـى:	بدون مساعدة	بمساعدة	بمساعدة كاملة	
هل تستطيع التحكم فى التبول والتبرز:	تحكم كامل	لا يوجد تحكـم أحيانا	غير متحكم	
هل تستطيع تناول الطعام والشراب:	بدون مساعدة	بمساعدة	بمساعدة كاملة	

Instrumental Activities of daily Living

IADL	Independent	Assisted	Dependent
Ability to Use Telephone			
Shopping			
Food Preparation			
Housekeeping			
Mode of Transportation			
Responsibility for Own Medications			
Ability to Handle Finances			
Laundry			

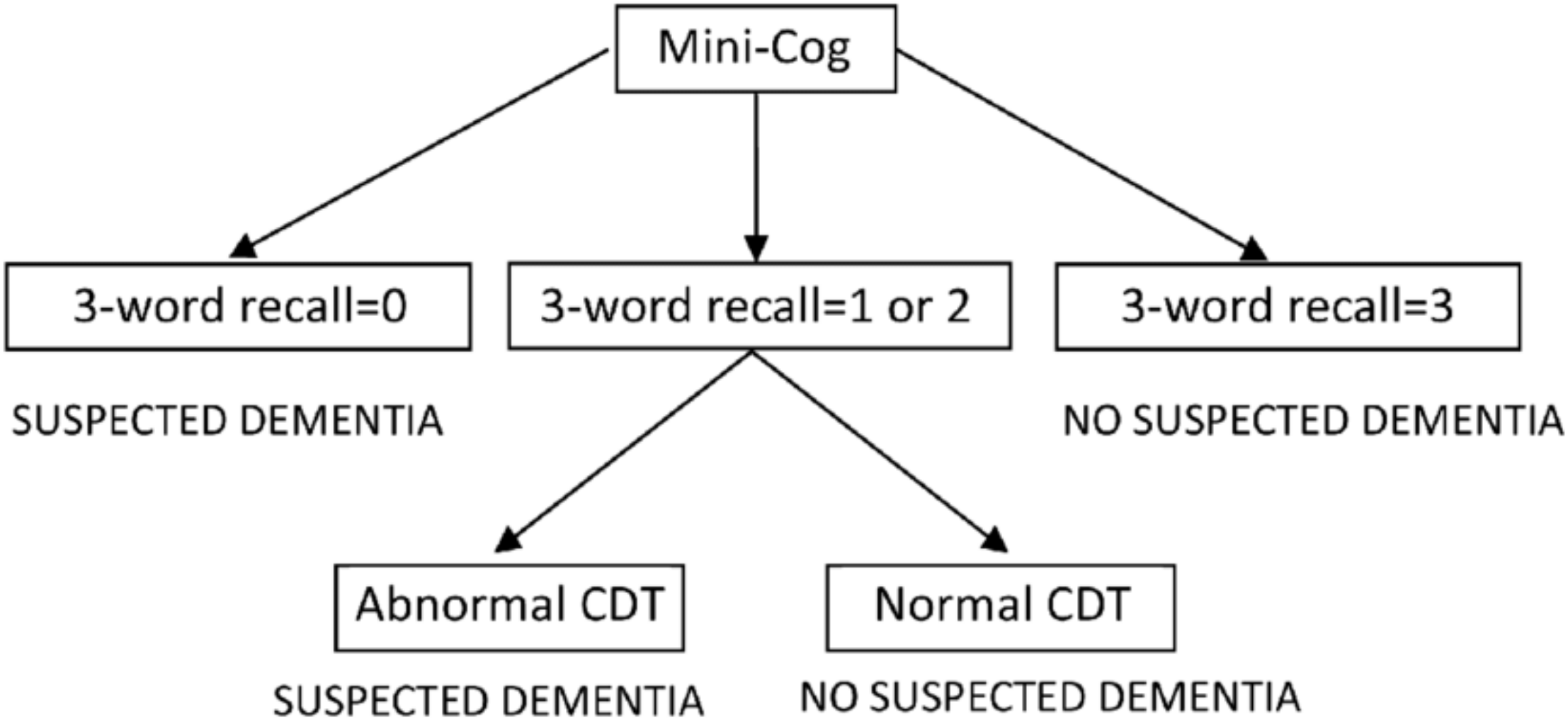
IADL	بمفرده	بمساعدة	بمساعدة كاملة
1- هل تستطيع استعمال التليفون؟			
2- هل تستطيع تجهيز طعامك؟			
3- هل تستطيع الذهاب لأماكن أبعد من أن تمشى لها؟			
4- هل تستطيع القيام بأعمال المنزل؟			
5- هل تستطيع شراء البقالة أو الملابس؟			
6- هل تستطيع تناول الأدوية الخاصة بك؟			
7- هل تستطيع التعامل بالمال؟			
8-هل تستطيع غسيل ملابسك بنفسك			

Cognitive Screening

- The prevalence of dementia doubles every 5 years after age 60, so that by age 85 approximately 30% to 50% of individuals have some degree of impairment.
- Patients with mild or early dementia frequently remain undiagnosed because their social graces are retained.
- The combination of the “clock draw” and the “three-item recall” is a rapid and fairly reliable office-based screening for dementia.
- When patients fail either of these screening tests, further testing with the Folstein Mini-Mental State questionnaire should be performed.

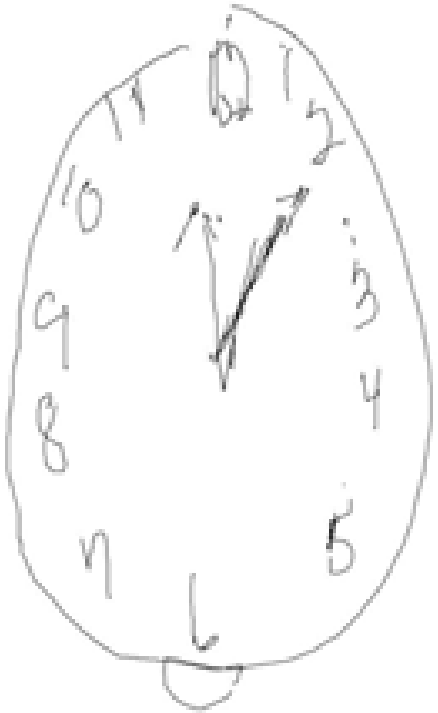
Cognitive Screening

Cognition	▪ Targeted screening in patients with memory complaints or new functional impairment with MMSE, Mini-Cog, Clock Drawing Test, Memory Impairment Screen, SLUMS, or MoCA
Mood	▪ Screen all older adults for depression with two questions: ▪ During the last month:
	▪ 1) Have you been bothered by feeling down, depressed, or hopeless?
	▪ 2) Have you often been bothered by having little interest or pleasure in doing things?


Mini-Cog
3-word recall=0
3-word recall=1 or 2
3-word recall=3
SUSPECTED DEMENTIA
NO SUSPECTED DEMENTIA
Abnormal CDT
Normal CDT
SUSPECTED DEMENTIA
NO SUSPECTED DEMENTIA

Healthy

Alzheimer's

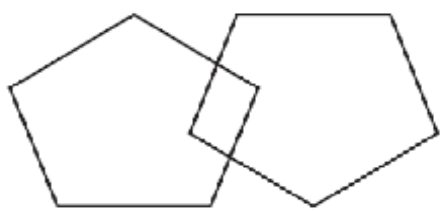


Parkinson's

The Mini-Mental State Exam

Patient_____ Examiner _____ Date_____

Maximum	Score	
		Orientation
5	( )	What is the (year) (season) (date) (day) (month)?
5	( )	Where are we (state) (country) (town) (hospital) (floor)?
		Registration
3	( )	Name 3 objects: 1 second to say each. Then ask the patient all 3 after you have said them. Give 1 point for each correct answer. Then repeat them until he/she learns all 3. Count trials and record. Trials _____
		Attention and Calculation
5	( )	Serial 7's. 1 point for each correct answer. Stop after 5 answers. Alternatively spell "world" backward.
		Recall
3	( )	Ask for the 3 objects repeated above. Give 1 point for each correct answer.
		Language
2	( )	Name a pencil and watch.
1	( )	Repeat the following "No ifs, ands, or buts"
3	( )	Follow a 3-stage command: "Take a paper in your hand, fold it in half, and put it on the floor."
1	( )	Read and obey the following: CLOSE YOUR EYES
1	( )	Write a sentence.
1	( )	Copy the design shown.



_____ Total Score

ASSESS level of consciousness along a continuum _____

Alert Drowsy Stupor Coma

Arabic Mini-Mental State Exam

- **1) التوجه (الاهتداء)**
- تقدر تقول لى احنا فى سنة كام ؟
- تقدر تقولى احنا فى فصل ايه؟
- تقدر تقولى احنا فى شهر ايه؟
- احنا كام فى الشهر ؟
- تقدر تقولى النهاردة ايه فى اليوم الاسبوع؟ / 5

- احنا فين دلوقتى ؟
- احنافى الدور الكام ؟
- انت تبع حى ايه ؟
- انت تبع محافظة ايه ؟
- احنا فى بلد ايه ؟ /5

(2) تسجيل المعلومات:

ها قولك 3 كلمات قولهم ورائى ؛ واحفظهم علشان ها اسالك عليهم تانى . (كورة – شجرة – كرسى). / 3

(3) االانتباه و الحساب

اطرح 7 من 100 والباقى شيل منه 7 وانت نازل وتوقف بعد 5 مرات.(3 من 20)

او تقدر تقولي أيام الأسبوع بالعكس؟ إبتدي بالجمعة و اللي قبليه و اللي قبليه ....كده 5 مرات /5

(4) استرجاع الذاكرة

قولى الـ 3 كلمات اللى قولناهم قبل كده (كورة – شجرة – كرسى) /3

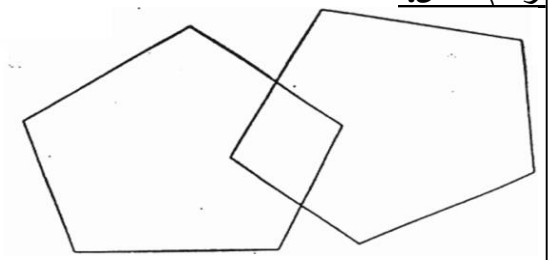
(5) اللغـــة:

- اية دة (شاور على القلم و الساعة واسال عن هذة الاشياء) / 2
- قول ورائى (ولاكانى ولا مانى و لا حاجة عاجبنى) / 1
- استجابة المريض لامر مكون من 3 حركات

(امسك الورقة دى بايدك اليمين، وطبقها اثنين بايديك الاثنين وحطها على الارض) /3

- اقرا المكتوب ونفذة (غمض عنيك) ؟ /1
- اكتب جملة مفيدة (لها معنى) /1

ارسم الشكل. **1/**



)

Geriatric depression scale-5 items

Choose the best answer to describe how you have felt over the past week:		
1. Are you basically satisfied with your life?	yes	no
2. Do you often get bored?	yes	no
3.Do you often feel helpless?	yes	no
4. Do you prefer to stay at home rather than going out and doing new things?	yes	no
5. Do you feel pretty worthless the way you are now?	yes	no

Two out of five depressive responses ("no" to question 1 or "yes" to questions 2 through 5) suggests the diagnosis of depression

GDS	نعم	لا
1- هل أنت راض عن حياتك ؟		
2- هل غالباً ما تشعر أنك متضايق؟		
3- هل غالباً ما تشعر أنك قليل الحيلة ؟		
4- هل تفضل أن تبقى بالمنزل على الخروج منه وعمل شئ جديد؟		
5-هل تشعر أنك لا تستحق الطريقة التى تعيش بها الآن؟		

PHC-2 Screening

Two question screener: A two question screener is easily administered and likely to identify patients at risk if both questions are answered affirmatively. The questions are:

- "During the past month, have you been bothered by feeling down, depressed or hopeless?"

- "During the past month, have you been bothered by little interest or pleasure in doing things?"

Depression score ranges:				
5 to 9: mild				
10 to 14: moderate				
15 to 19: moderately severe				
≥20: severe				
If you checked off any problems, how difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?	Not difficult at all ___	Somewhat difficult ___	Very difficult ___	Extremely difficult ___

PHQ: Patient Health Questionnaire.

PHQ-9 depression questionnaire

Name:	**Date:**			
Over the last 2 weeks, how often have you been bothered by any of the following problems?	**Not at all**	**Several days**	**More than half the days**	**Nearly every day**
Little interest or pleasure in doing things	0	1	2	3
Feeling down, depressed, or hopeless	0	1	2	3
Trouble falling or staying asleep, or sleeping too much	0	1	2	3
Feeling tired or having little energy	0	1	2	3
Poor appetite or overeating	0	1	2	3
Feeling bad about yourself, or that you are a failure, or that you have let yourself or your family down	0	1	2	3
Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
Moving or speaking so slowly that other people could have noticed? Or the opposite, being so fidgety or restless that you have been moving around a lot more than usual.	0	1	2	3
Thoughts that you would be better off dead, or of hurting yourself in some way	0	1	2	3
Total ___ =	___	+ ___	+ ___	+ ___
PHQ-9 score ≥10: Likely major depression				

GDS-15 Arabic Version

استبيان عن الصحة العامة		
الآن سأقرأ لك مجموعة من 15 سؤال إختر إجابة واحدة وضع✓ تحت الإجابة المناسبة من فضلك. الرجاء التأكد من الإجابة على كل الأسئلة		
خلال الأسبوع الماضي فقط هذه الأسئلة تتعلق بشعورك		
	0 نعم	1 لا
GDS01	هل أنت مبدئياً راض عن حياتك ؟	
GDS02	هل تخليت عن كثير من نشاطاتك؟	
GDS03	هل تشعر ان حياتك فارغة؟	
GDS04	هل كثيراً ما يصيبك الملل؟	
GDS05	هل معنوياتك مرتفعة معظم الوقت؟	
GDS06	هل أنت خائف من أن سوءاً ما سيحدث لك؟	
GDS07	هل تشعر بالسعادة معظم الوقت؟	
GDS08	هل غالباً ما تشعر أنك عاجز/غير قادر على تغيير وضعك؟	
GDS09	هل تفضل البقاء في البيت على الخروج وفعل أشياء جديدة؟	
GDS10	هل تشعر بأنه لديك مشكلة في الذاكرة أكثر من الآخرين؟	
GDS11	هل تعتقد بأنه من الرائع أن تكون على قيد الحياة؟	
GDS12	هل تشعر بأنك عديم القيمة في وضعك الحالي؟	
GDS13	هل تشعر بأنك في كامل نشاطك؟	
GDS14	هل تشعر بأن وضعك لا أمل فيه؟	
GDS15	هل تشعر بأن حال معظم الناس أحسن من حالك؟	

Geriatric Depression Scale: Short Form

Choose the best answer for how you have felt over the past week:

Question	Answer
1. Are you basically satisfied with your life?	YES / **NO**
2. Have you dropped many of your activities and interests?	**YES** / NO
3. Do you feel that your life is empty?	**YES** / NO
4. Do you often get bored?	**YES** / NO
5. Are you in good spirits most of the time?	YES / **NO**
6. Are you afraid that something bad is going to happen to you?	**YES** / NO
7. Do you feel happy most of the time?	YES / **NO**
8. Do you often feel helpless?	**YES** / NO
9. Do you prefer to stay at home, rather than going out and doing new things?	**YES** / NO
10. Do you feel you have more problems with memory than most?	**YES** / NO
11. Do you think it is wonderful to be alive now?	YES / **NO**
12. Do you feel pretty worthless the way you are now?	**YES** / NO
13. Do you feel full of energy?	YES / **NO**
14. Do you feel that your situation is hopeless?	**YES** / NO
15. Do you think that most people are better off than you are?	**YES** / NO
Score (number of answers in bold)	

Answers in **bold** indicate depression. Score 1 point for each bolded answer.

A score >5 points is suggestive of depression.
A score ≥10 points is almost always indicative of depression.
A score >5 points should warrant a follow-up comprehensive assessment.

Screening instruments for late-life depression for use in primary care

	Sensitivity percent	Specificity percent	Inpatient	Outpatient	Physically ill	Cognitively impaired
Two-question screen	97	67	Unknown	Yes	Unknown	No
Geriatric Depression Scale (5-item)	94	81	Yes	Yes	Yes	Unknown
Patient Health Questionnaire-9 (9-item)	88	88	Unknown	Yes	Yes	Unknown
Cornell Scale for Depression in Dementia (19-item)	90	75	Yes	Yes	Unknown	Yes
Center for Epidemiologic Studies - Depression Scale (20-item)	93	73	No	Yes	Unknown	No

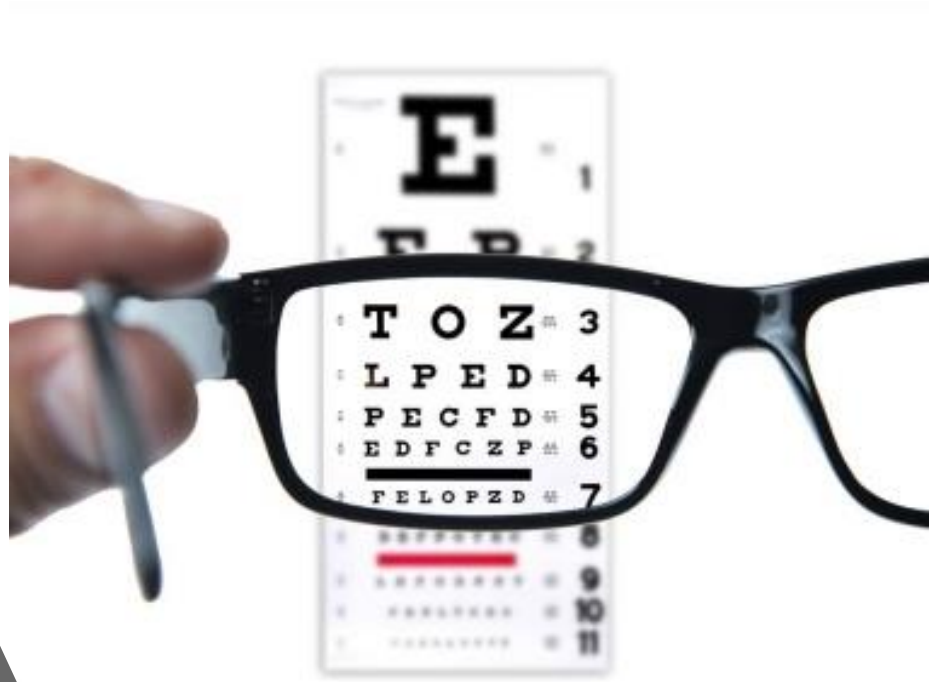
Osteoporosis

- The USPSTF recommends that women aged 65 and older be screened routinely for osteoporosis using bone densitometry.

- The USPSTF also recommends that routine screening begin at age 60 for women at increased risk for osteoporotic fractures, including those with low body weight.

Vision Screening

- Evidence was inconclusive that early detection of visual impairment improved visual outcomes, functional status, or quality of life.
- Based on this review, there is no clear indication to perform regularly scheduled screenings among otherwise asymptomatic, average-risk older adults.
- However, we do advise that a vision assessment be included as part of the routine workup for older adults with recent cognitive decline, functional impairment, or falls.



Hearing Screening

- Despite the insufficient evidence, we suggest that primary providers screen adults over 65 for hearing loss, and in particular, vulnerable older adults at risk for functional decline, hospitalization, or cognitive problems.
- Patient inquiry is a rapid and inexpensive way to screen for hearing loss.
- While pure tone audiometry is the reference standard for screening hearing, a whispered voice test is both sensitive and specific.
- An evidence review to support a recommendation from the USPSTF found that either the whispered voice test at two feet or a single question regarding perceived hearing loss were nearly as effective as a formal hearing questionnaire or use of a tone-emitting otoscope for the detection of hearing loss

Hearing and vision	▪ Annual screening for hearing loss with patient inquiry and exam (Whisper test or handheld audiometry) ▪ Vision assessment as part of the routine workup for older adults with cognitive decline, functional impairment, or falls

Nutrition

- A combination of serial weight measurements obtained in the office and inquiry about changing appetite are likely the most useful methods of assessing nutritional status in older patients.

- In addition, a mini-nutritional assessment tool has been developed to help the clinician determine patients who may need nutritional support and counseling.

- Vulnerable older adults with an involuntary weight loss of 10 percent or more in less than a year should undergo further evaluation for under nutrition, possible medical or medication-related causes, dental status, food security, food-related functional status, appetite and intake, swallow ability, and previous dietary restrictions.

Mini nutritional assessment

Last name: _____ First name: _____ Middle initial: _____ Sex: ____ Date: _____
Age: _____ Weight (kg): _____ Height (cm): _____
Complete the form by writing the points in the boxes. Add the points in the boxes, and compare the total assessment to the malnutrition indicator score.*

Anthropometric assessment — **Points**

1. Body mass index (weight in kg ÷ height in m2):
   - a. <19 = 0 points
   - b. 19 to <21 = 1 point
   - c. 21 to <23 = 2 points
   - d. >23 = 3 points

2. Midarm circumference:
   - a. <21 cm = 0 points
   - b. 21 to ≤22 cm = 0.5 point
   - c. >22 cm = 1 point

3. Calf circumference:
   - a. <31 cm = 0 points
   - b. ≥31 cm = 1 point

4. Weight loss during past 3 months:
   - a. >3 kg = 0 points
   - b. Does not know = 1 point
   - c. 1 to 3 kg = 2 points
   - d. No weight loss = 3 points

General assessment

5. Lives independently (not in nursing home or hospital):
   - a. No = 0 points
   - b. Yes = 1 point

6. Takes more than three prescription drugs per day:
   - a. Yes = 0 points
   - b. No = 1 point

7. Has suffered psychologic stress or acute disease in the past 3 months:
   - a. Yes = 0 points
   - b. No = 1 point

8. Mobility:
   - a. Bed-bound or chair-bound = 0 points
   - b. Able to get out of bed or chair, but does not go out = 1 point
   - c. Goes out = 2 points

9. Neuropsychologic problems:
   - a. Severe dementia or depression = 0 points
   - b. Mild dementia = 1 point
   - c. No psychologic problems = 2 points

10. Pressure sores or skin ulcers:
    - a. Yes = 0 points
    - b. No = 1 point

Dietary assessment — **Points**

11. How many full meals does the patient eat daily?
    - a. One meal = 0 points
    - b. Two meals = 1 point
    - c. Three meals = 2 points

12. Selected consumption markers for protein intake:
    - a. At least one serving of dairy products (milk, cheese, yogurt) per day: yes no
    - b. Two or more servings of legumes or eggs per week: yes no
    - c. Meat, fish or poultry every day: yes no

    0 or 1 yes answers = 0 points
    2 yes answers = 0.5 point
    3 yes answers = 1 point

13. Consumes two or more servings of fruits or vegetables per day:
    - a. No = 0 points
    - b. Yes = 1 point

14. Decline in food intake over the past 3 months because of loss of appetite, digestive problems, or chewing or swallowing difficulties:
    - a. Severe loss of appetite = 0 points
    - b. Moderate loss of appetite = 1 point
    - c. No loss of appetite = 2 points

15. Cups of fluid (eg, water, juice, coffee, tea, milk) consumed per day (1 cup = 8 oz):
    - a. <3 cups = 0 points
    - b. 3 to 5 cups = 0.5 point
    - c. >5 cups = 1 point

16. Mode of feeding:
    - a. Needs assistance to eat = 0 points
    - b. Self-fed with some difficulty = 1 point
    - c. Self-fed with no problems = 2 points

Self-assessment

17. Does the patient think that he or she has nutritional problems?
    - a. Major malnutrition = 0 points
    - b. Moderate malnutrition or does not know = 1 point
    - c. No nutritional problem = 2 points

18. How does the patient view his or her health status compared with the health status of other people of the same age?
    - a. Not as good = 0 points
    - b. Does not know = 0.5 point
    - c. As good = 1 point
    - d. Better = 2 points

Assessment total (maximum of 30 points): *

* Malnutrition indicator score: ≥24 points = well nourished; 17 to 23.5 points = at risk for malnutrition; <17 points = malnourished.

"تقييم التغذية المصغر"

Mini Nutritional Assessment-Short Form
MNA®

Nestlé Nutrition Institute

إسم العائلة: | الإسم الأول:

الجنس: | العمر: | الوزن(كجم): | الطول(سم): | التاريخ:

أكمل المسح الأولي بملأ المربعات بالأرقام (النقاط) المناسبة. إجمع النقاط للحصول على المجموع النهائي للنقاط المحرزة لهذا المسح.

المسح الأولي

A أ. هل نقص تناول الطعام خلال الثلاثة أشهر الماضية نتيجة لفقدان الشهية أو مشاكل في الهضم أو صعوبات في المضغ أو البلع؟
0= فقدان شديد للشهية
1= فقدان متوسط للشهية
2= لا يوجد فقدان للشهية
☐

B ب. مدى فقدان الوزن خلال الأشهر الثلاثة الأخيرة
0= فقدان الوزن أكثر من 3 كجم
1= غير معروف
2 = فقدان الوزن من 1 إلى 3 كجم
3= لا يوجد فقدان في الوزن
☐

C ج. القدرة على الحركة
0= ملازم للفراش أو للكرسي
1 = قادر على القيام من الفراش / الكرسي ولكنه غير قادر على مغادرة المنزل
2 = يغادر المنزل
☐

D د. أي إصابة بضغط نفسي أو مرض حاد في الأشهر الثلاثة الماضية
☐

E 0= نعم 2= لا.
ه. أي إصابات عصبية ونفسية
0=خرف شيخوخة شديد أو إكتئاب
1= خرف شيخوخة خفيف (معتدل)
☐

F1 2 = غير مصاب بأمراض
و1. معدل كتلة الجسم[(الوزن بالكيلوجرام) ÷ (الطول بالمتر)^2]
0= معدل كتلة الجسم أقل من 19
1 = معدل كتلة الجسم من 19إلى أقل من 21
2 = معدل كتلة الجسم من 21 إلى أقل من 23
☐

إذا تعذر حساب معامل كتلة الجسم , إستبدل السؤال و-1 بالسؤال و-2.
لا تجب عن السؤال و-2 إذا تمت الاجابة على السؤال و-1.

F2 و2. محيط كتلة (بطة) الساق (بالسنتيمتر)
0 = أقل من 31 سم
1 = 31 سم أو أكثر
☐

مجموع النقاط المحرزة في المسح الأولي (الحد الأقصى 14نقطة) ☐☐

12- 14 نقطة : الحالة الغذائية طبيعية.
8-11 نقطة : معرض لخطر سوء تغذية.
0- 7 نقطة: حالة سوء تغذية.

Vitamin D

- A growing evidence base has identified the high prevalence of vitamin D deficiency (<30 ng/mL) among older adults and important health implications.
- The role of vitamin D in falls prevention is uncertain, although most experts advise that the daily intake of vitamin D in older adults should be at least 800 international units.
- At least 1.2 g of elemental calcium in the diet or as a supplement is also recommended.

Falls and mobility

- ❑ Providers should regularly ask older patients about recent falls and fall risks, because of the high incidence and potential sequelae of falls, including fracture or hospitalization.

- ❑ For patients who fall or have problems in physical functioning or limited mobility that increase their risk for falls, clinicians should:

  - Assess for contributory factors,
  - Review medications
  - Ask about home safety

- ❑ Effective interventions for people with a history of falls or risks for falling, including physical therapy, assistive devices, and a supervised exercise program.

TABLE 3

Rapid Gait Assessment and Scoring

Instructions

Sit comfortably in a straight-backed chair

Use your typical walking aid

When I say "go," I want you to:

(1) Rise from the chair

(2) Walk to the line on the floor at your normal pace (the line is placed 3 m [10 ft] away on the floor)

(3) Turn around

(4) Walk back to the chair at your normal pace

(5) Sit back down again

Scoring

Qualitative scoring (when a physician administers the test): Get Up and Go Test

Observe the patient's movements for any deviation from a confident, normal performance

Intermediate grades reflect the presence of any of the following as indicators of the possibility of falling: undue slowness, hesitancy, abnormal movements of the trunk or upper limbs, staggering, or stumbling

- Normal: no evidence of risk of fall
- Very slightly abnormal
- Mildly abnormal
- Moderately abnormal
- Severely abnormal: appears at risk of falling during the test

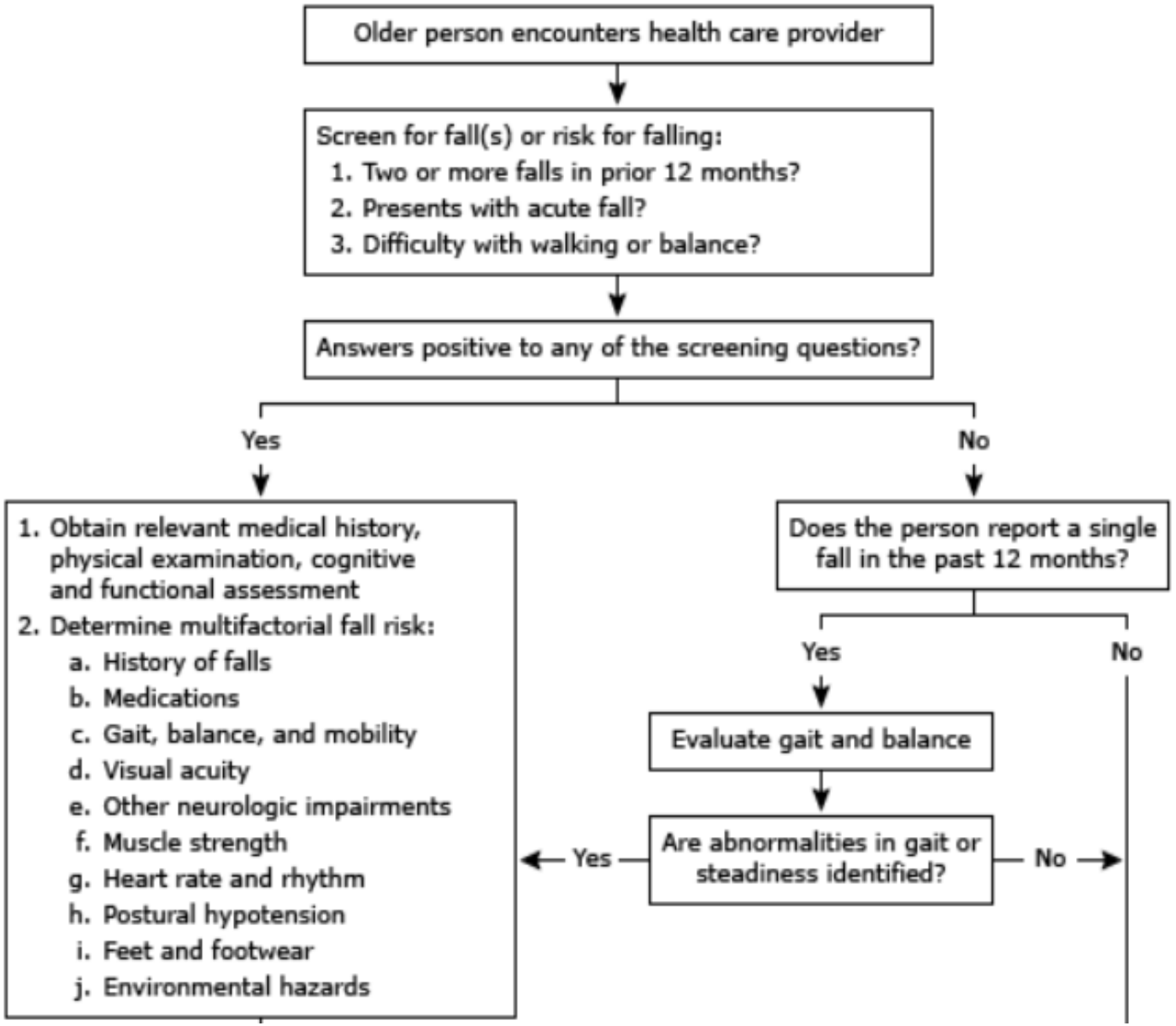
Quantitative scoring (when trained staff administer the test): Timed Up and Go Test

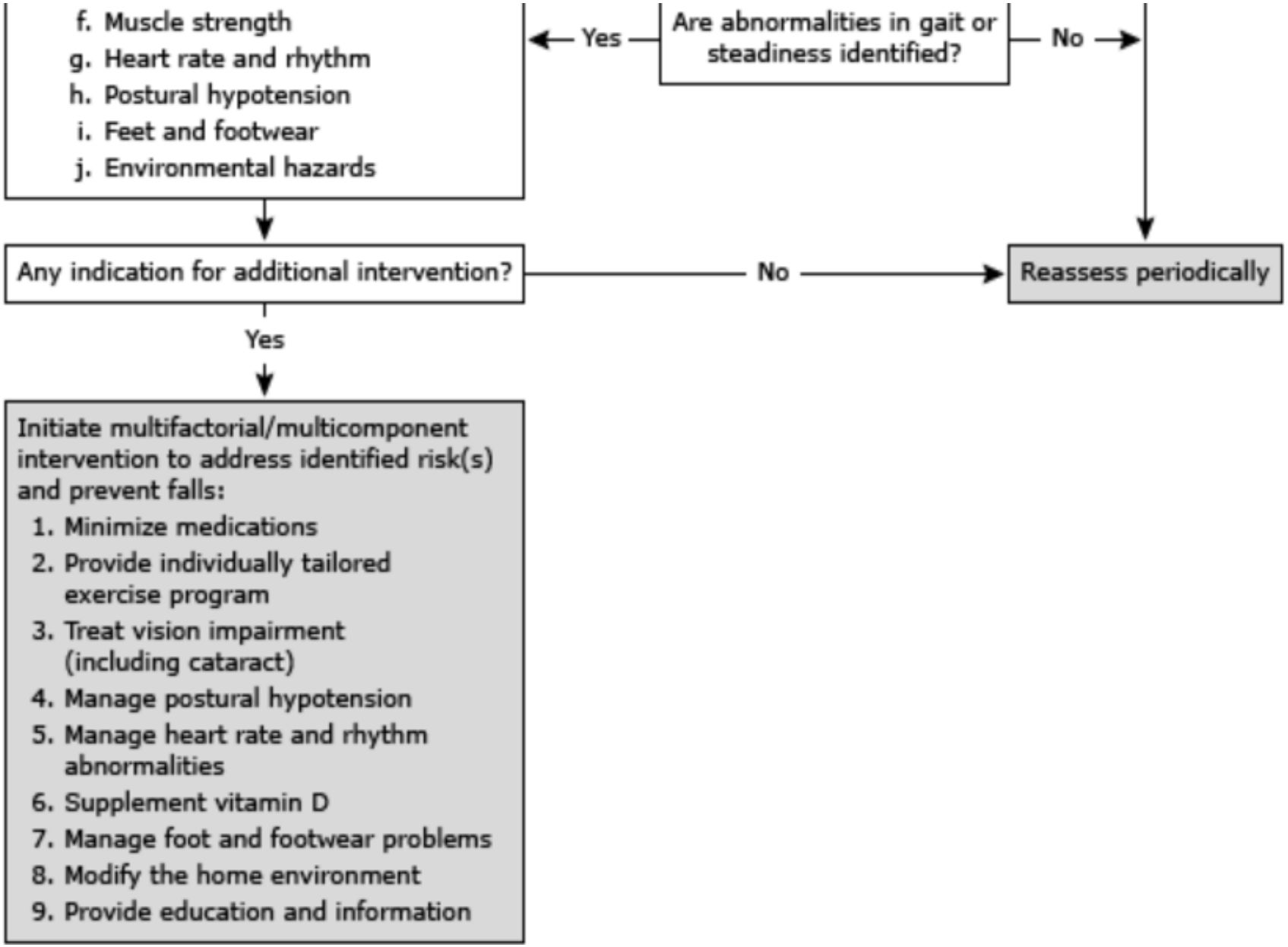
On the word "go," begin timing

Stop timing after the patient sits back down, and record total time

Any adult who takes longer than 12 seconds to complete is at high risk of falling

Prevention falls algorithm




f. Muscle strength
g. Heart rate and rhythm
h. Postural hypotension
i. Feet and footwear
j. Environmental hazards
Yes
Are abnormalities in gait or steadiness identified?
No
Any indication for additional intervention?
No
Reassess periodically
Yes
Initiate multifactorial/multicomponent intervention to address identified risk(s) and prevent falls:
1. Minimize medications
2. Provide individually tailored exercise program
3. Treat vision impairment (including cataract)
4. Manage postural hypotension
5. Manage heart rate and rhythm abnormalities
6. Supplement vitamin D
7. Manage foot and footwear problems
8. Modify the home environment
9. Provide education and information

Urine Incontinence

- A targeted history and physical examination can often identify the cause of UI and lead to appropriate intervention.

- Appropriate assessment includes:
  - Questions to determine UI onset (acute versus chronic)
  - Type (eg, stress, urge, overflow, mixed)
  - Precipitants (eg, cough, medication use)

- A targeted physical might include:
  - Assessment for fluid overload
  - Genital and rectal examination
  - Neurologic evaluation

- Urine and blood tests are indicated to evaluate for infection, metabolic causes, renal dysfunction, and possible vitamin B12 deficiency.

Screening for UI

A two-question screening tool is effective in identifying urinary incontinence:

(1) In the past year, have you ever lost your urine and gotten wet? And

(2) If so, have you lost your urine on at least six separate days?

Positive responses to both questions should lead to a more in-depth assessment of transient and established factors that are contributing to the incontinence.

MEDICATION USE

Evidence-based recommendations on medication management, evaluated by Assessing Care of Vulnerable Elders (ACOVE) authors, include:

- ❑ Maintain an up-to-date medication list, including over-the-counters and herbals.
- ❑ Comprehensively review medications at least once annually (if not at every visit) and after all hospitalizations.
- ❑ A clear indication for each medication, and documentation of response to therapy (particularly for chronic conditions), should be included.
- ❑ Assess for duplication, drug-drug or drug-disease interactions, adherence, and affordability.
- ❑ Assess for specific classes of medications commonly associated with adverse events:

warfarin, analgesics (particularly narcotics and [NSAIDs], antihypertensives (particularly [ACE] inhibitors and diuretics), insulin and hypoglycemic agents, and any psychotropics.

- ❑ Minimize or avoid use of anticholinergic medications which present specific risks.

Geriatric Assessment Components in the Medicare Annual Wellness Visit

Action	Elements and interventions
Data collected before the physician enters the examination room (completed by the patient or family member in 20 minutes or less)	
Identify all current clinicians and medical suppliers	—
Perform health risk assessment	Self-assessment of health status: excellent, good, fair, poor Psychosocial risks Behavioral risks (e.g., alcohol, drug, and tobacco use; new sex partners) Activities of daily living (e.g., dressing, toileting, bathing, walking, feeding) Instrumental activities of daily living (e.g., shopping, housekeeping, managing medications, handling finances)
Review and update medical/family history and comprehensive pharmaceutical review	Update recent medical events Obtain family history targeted to history of longevity, cognitive impairment, and parents' and siblings' end-of-life experiences Perform medication review for potentially inappropriate medications Beers criteria (free download with registration): https://geriatricscareonline.org/ProductAbstract/american-geriatrics-society-updated-beers-criteria-for-potentially-inappropriate-medication-use-in-older-adults/CL001/ STOPP/START tools: https://www.networks.nhs.uk/nhs-networks/nhs-cumbria-ccg/medicines-management/guidelines-and-other-publications/Stop%20start%20pdf%20final%20Feb%202013%20version.pdf Review medication list for vitamins and supplements, and potential medication interactions

Screen for depression	Patient Health Questionnaire-2, Patient Health Questionnaire-9, five- or 15-item Geriatric Depression Scale
Screen for functional status and safety	Do you need help with dressing, toileting, bathing, walking, or feeding? In the past year, have you fallen? Do you feel you have hearing loss? Home Safety Self-Assessment Tool
Screen for urinary incontinence	In the past year, have you ever lost your urine and gotten wet? If so, have you lost your urine on at least six separate days?
Screen for weight loss or malnutrition	Have you lost weight in the previous six months? For targeted screening, consider the Mini Nutritional Assessment
Data collected by physician	
Assessment	Perform required elements from the Centers for Medicare and Medicaid Services: Measure weight, height, and blood pressure Address any cognitive impairment: assess the beneficiary's cognitive function by direct observation, with due consideration of information obtained via beneficiary reports and concerns raised by family members, friends, caregivers, or others Perform targeted brief screening with Mini-Cog tool Consider Montreal Cognitive Assessment for more in-depth screening if the Mini-Cog result is positive Suggested other assessments: Gait: Get Up and Go Test (i.e., rise without use of arms from a chair, walk 3 m [10 ft], turn, and return to chair) Optional Timed Up and Go Test (i.e., complete above in less than 12 seconds)

Geriatric Assessment Components in the Medicare Annual Wellness Visit

Action	Elements and interventions
Data collected by physician *(continued)*	
Counseling	Review age-appropriate prevention measures covered by Medicare (Table 2)
	Review recommendations from the U.S. Preventive Services Task Force and the Advisory Committee on Immunization Practices
	Give targeted health advice and make appropriate referrals:
	Fall prevention
	Lifestyle interventions to reduce health risks and promote wellness
	Nutrition
	Physical activity
	Tobacco cessation
	Weight loss

Summary of screening, prevention, and counseling recommendations for adults age ≥65 years

Priority problem	Brief recommendation
Historical information and counseling	
Exercise	Moderate to vigorous aerobic activity 3 to 5 times per week Weight training or resistance exercises to maintain strength Flexibility activities to maintain range of motion Balance training to improve stability and prevent falls
Alcohol use	CAGE questionnaire Counseling to stop drinking
Tobacco use	Ongoing regular counseling to stop smoking Consideration of pharmacotherapy
Medication use	Regular review of medication list for:
	Completeness, accuracy, adherence, and affordability
	Drug-drug, drug-disease interactions
	Careful attention to use of specific drug types/classes including warfarin, digoxin, antidiabetic, analgesic, antihypertensive, psychotropic, and anticholinergic drugs
Urinary incontinence (UI)	Inquire about presence and severity biannually Presence of UI should trigger medication review, GU exam, appropriate blood and urine tests
Driving	Consideration of driving problems in those with problems with vision, mobility, or cognition For demented patients, recommend stop driving or refer for detailed driving assessment
Social support	Regular screening for financial and social support
Elder mistreatment	Routine direct questioning about problems with abuse or neglect
Advance directives	Discussion and documentation of preferences with living will and designation of health care power of attorney

Physical examination and testing	
Blood pressure	Measure annually If treatment initiated, monitor orthostatic blood pressure, renal function, and electrolytes
Weight	Weight loss of 10% or more per year triggers assessment of undernutrition, possible medical or medication-related causes, dental status, food security, food-related functional status, appetite and intake, swallow ability, and previous dietary restrictions
Hearing and vision	Annual screening for hearing loss with patient inquiry and exam (whisper test or handheld audiometry) Vision assessment as part of the routine workup for older adults with cognitive decline, functional impairment, or falls
Cognition	Targeted screening in patients with memory complaints or new functional impairment with MMSE, Mini-Cog, Clock Drawing Test, Memory Impairment Screen, SLUMS, or MoCA
Mood	Screen all older adults for depression with two questions: During the last month:
	1) Have you been bothered by feeling down, depressed, or hopeless?
	2) Have you often been bothered by having little interest or pleasure in doing things?
Gait and balance	Get Up and Go Test
Lipids	Screen and treat older adults with CAD risk exceeding 10% over 10 years
Bone density	Screening densitometry for osteoporosis for women at age 65
Abdominal aortic aneurysm (AAA)	One-time screening ultrasound in men aged 65 to 75 with any history of smoking or family history of AAA requiring repair
Diabetes	Screen adults (to age 70) with BMI ≥25 kg/m^2, hypertension, or hyperlipidemia

Questions and simple tests for general screening assessment of frail older patients*

	Question	Indicator (Scoring applies to individual domains)	Alternative
Functional status			
Activities of daily living (ADLs)	Bathing, dressing, toileting, transferring, maintaining continence, feeding	Able to complete without assistance; able but with difficulty; unable to complete without assistance	
Instrumental ADLs (IADLs)	Using the telephone, shopping, preparing meals, housekeeping, doing laundry, using public transportation or driving, taking medication, handling finances	Able to complete without assistance; unable to complete without assistance	
Visual impairment	Do you have difficulty driving, watching television, reading, or doing any of your daily activities because of your eyesight, even while wearing glasses?[1]	Yes indicates positive screen	Snellen eye chart
Hearing impairment¶	Is your age older than 70 years?	1 point	Alternative is Audioscope[2]
	Are you of male gender?	1 point	
	Do you have 12 or fewer years of education?	1 point	
	Did you ever see a doctor about trouble hearing?	2 points	
	Without a hearing aid, can you usually hear and understand what a person says without seeing his face if that person whispers to you from across the room?	If no, 1 point	
	Without a hearing aid, can you usually hear and understand what a person says without seeing his face if that person talks in a normal voice to you from across the room?	If no, 2 points	
		≥3 points: positive screen	

Urinary incontinence[Δ]	Have you had urinary incontinence (lose your urine) that is bothersome enough that you would like to know how it could be treated?	Yes indicates positive screen	
Malnutrition	Have you lost any weight in the last year?[3]	Loss of at least 5 percent of usual body weight in last year indicates positive screen[3]	
Gait, balance, falls[Δ]	Have you fallen two or more times in the past 12 months?	Any yes response indicates positive screen	
	Have you fallen and hurt yourself since your last doctor's visit?		
	Have you been afraid of falling because of balance or walking problems?		
Depression[◇]	Over the past two weeks, how often have you been bothered by:	Response score for each: 0: not at all 1: several days 2: more than half the days 3: nearly every day Total ≥3, positive screen	
	Little interest or pleasure in doing things?		
	Feeling down, depressed, or hopeless?		
Cognitive problems	Three-item recall[4]	<2 items recalled indicates positive screen[4]	
	Clock-drawing test[5]	Any of the following errors indicate positive screen: wrong time, no hands, missing numbers, number substitutions, repetition, refusal[5]	
Environmental problems	Home safety checklists[6]		

* All except the Snellen eye chart, Audioscope, and evaluation for cognitive problems can be assessed by self-report using questionnaire.
¶ Questions and response indicators are from the National Health and Nutrition Examination Survey (NHANES) battery.[7]
Δ Questions and response indicators are from the ACOVE-2 Screener.[8]
◇ Questions and response indicators are from the Patient Health Questionnaire-2.[9]

SORT: KEY RECOMMENDATIONS FOR PRACTICE

Clinical recommendation	Evidence rating	References
Physicians should screen older patients for a risk of future falls using a single question, "Have you fallen in the past year?" In-depth, multifactorial risk assessment for falls should be reserved for patients who respond affirmatively or those who take longer than 12 seconds to perform a Timed Up and Go Test.	C	10, 13-15
Older adults should be screened for depression when appropriate support measures are available to ensure accurate diagnosis, effective treatment, and follow-up.	B	21, 22
There is insufficient evidence to recommend screening for hearing loss in asymptomatic adults older than 50 years. Targeted screening should be performed in those with perceived hearing loss, and cognitive and affective symptoms.	C	28, 30
Targeted screening for cognitive impairment is appropriate for patients with suspected impairment. The Mini-Cog tool is effective in primary care and appropriate for trained staff to administer.	C	34-37
Physicians should routinely address older adults' immunization status. The Advisory Committee on Immunization Practices recommends the following: Annual influenza vaccination The 13-valent pneumococcal conjugate vaccine (Prevnar 13) at 65 years of age and the 23-valent pneumococcal polysaccharide vaccine (Pneumovax 23) one year later Two doses of recombinant herpes zoster vaccine (Shingrix) dosed two to six months apart for immunocompetent adults 50 years or older Tetanus toxoid, reduced diphtheria toxoid, and acellular pertussis (Tdap) vaccine in persons older than 65 years, and the tetanus and diphtheria toxoids (Td) booster vaccine every 10 years thereafter	C	42-45

Recommendations from the Choosing Wisely Campaign

Recommendation	Sponsoring organization
Do not prescribe a medication without conducting a drug regimen review.	American Geriatrics Society
Do not assume a diagnosis of dementia in an older adult who presents with altered mental status and/or symptoms of confusion without assessing for delirium or delirium superimposed on dementia using a brief, sensitive, validated assessment tool.	American Academy of Nursing
Avoid using prescription appetite stimulants or high-calorie supplements for the treatment of anorexia or cachexia in older adults; instead, optimize social supports, discontinue medications that may interfere with eating, provide appealing food and feeding assistance, and clarify patient goals and expectations.	American Geriatrics Society

Source: For more information on the Choosing Wisely Campaign, see http://www.choosingwisely.org. For supporting citations and to search Choosing Wisely recommendations relevant to primary care, see https://www.aafp.org/afp/recommendations/search.htm.