

Falls and Mobility Disorders

Patient Visit Note

To be completed by medical assistant

- Reason for Visit:** Fall since last visit (or in last year, if new patient)
 Fear of falling, balance/trouble walking

History of Present Illness:

1. If patient fell, date of last fall: _____
2. Circumstances of fall: **YES** **NO**
- | | | |
|-----------------------------------|--------------------------|--------------------------|
| Loss of consciousness | <input type="checkbox"/> | <input type="checkbox"/> |
| Tripped/stumbled over something | <input type="checkbox"/> | <input type="checkbox"/> |
| Lightheadedness/palpitations | <input type="checkbox"/> | <input type="checkbox"/> |
| Unable to get up within 5 minutes | <input type="checkbox"/> | <input type="checkbox"/> |
| Needed assistance to get up | <input type="checkbox"/> | <input type="checkbox"/> |
3. Orthostatics: (Measure after 1–2 min. in specified position)
- Lying: BP: ____/____ Pulse: ____
- Standing: BP: ____/____ Pulse: ____

4. Uses device for mobility: **YES** **NO**
- | | | |
|-----------------------|--------------------------|--------------------------|
| Cane | <input type="checkbox"/> | <input type="checkbox"/> |
| Walker | <input type="checkbox"/> | <input type="checkbox"/> |
| Wheelchair | <input type="checkbox"/> | <input type="checkbox"/> |
| Other, specify: _____ | <input type="checkbox"/> | <input type="checkbox"/> |
5. Vision:
- Noticed recent vision change **YES** **NO**
- Eye exam in past year **YES** **NO**
- If **NO** eye exam in past year, Visual Acuity today:
OS: 20/____ OD: 20/____ OU: 20/____

To be completed by physician

6. Psychotropic medications (specify): **YES** **NO**
- | | | |
|------------------------|--------------------------|--------------------------|
| Neuroleptics: _____ | <input type="checkbox"/> | <input type="checkbox"/> |
| Benzodiazepines: _____ | <input type="checkbox"/> | <input type="checkbox"/> |
| Antidepressants: _____ | <input type="checkbox"/> | <input type="checkbox"/> |

7. 2 or more drinks of alcohol each day **YES** **NO**
8. Other conditions (e.g., Parkinson's, CVA, cardiac, neuropathy, severe OA), specify: _____

Examination: (complete as appropriate)

1. **Cognition:** 3-Item recall PASS FAIL
If FAIL → Cognitive status: _____
(get results from patient screen)

2. **Gait** Normal Abnormal
- Abnormal if:
- Hesitant start
 - Extended arms
 - Broad-based gait
 - Heels do not clear floor
 - Path deviates
 - Heels do not clear toes of other foot

3. **Balance:** **YES** **NO**
- | | | |
|-----------------------------|--------------------------|--------------------------|
| Side-by-side, stable 10 sec | <input type="checkbox"/> | <input type="checkbox"/> |
| Semi-tandem, stable 10 sec | <input type="checkbox"/> | <input type="checkbox"/> |
| Full tandem, stable 10 sec | <input type="checkbox"/> | <input type="checkbox"/> |

- If indicated: **YES** **NO**
- | | | |
|-----------------------------|--------------------------|--------------------------|
| Can pick up penny off floor | <input type="checkbox"/> | <input type="checkbox"/> |
| Resistance to nudge | <input type="checkbox"/> | <input type="checkbox"/> |

4. **Neuromuscular:** **YES** **NO**
- | | | |
|------------------------------------|--------------------------|--------------------------|
| Quad strength: | | |
| Can rise from chair w/o using arms | <input type="checkbox"/> | <input type="checkbox"/> |
| Rigidity (e.g., cogwheeling) | <input type="checkbox"/> | <input type="checkbox"/> |
| Bradykinesia | <input type="checkbox"/> | <input type="checkbox"/> |
| Tremor | <input type="checkbox"/> | <input type="checkbox"/> |
- If indicated, hip ROM and knee exam: _____

Diagnosis/Treatment Plan:

- Lab/Tests:** EKG Holter monitoring
 Other: _____

- Impression:** Strength problem Balance problem
 Parkinsonism Severe hip/knee OA
 Other: _____

Treatment: (the forms listed below can be printed from the ACOVE video program)

- Patient education handouts:**
- Falls and Mobility Disorders Patient Information Sheet
 - Home Safety Checklist
 - Strength/balance exercises: Upper body Lower body
 - Falls and Mobility Disorders: Community Resources
- Patient counseled:**
- Referral for PT
 - Assistive device: _____
 - Referral for home safety inspection/modifications
 - Change in medication(s): _____
 - Referral for eye exam
 - Cardiology consult
 - Community exercise program
 - Neurology consult
 - Other: _____

Provider's Signature _____

Date of Service _____

Patient Name: _____
Med. Rec.# _____
Date of Birth: _____
PCP: _____

Falls and Mobility Disorders

Reason for Visit: Fall/fear of falling with mobility problem

History:

If patient fell: Date of last fall

Circumstances of fall:

Loss of consciousness Lightheadedness/palpitations
Tripped/stumbled Needed assistance to get up
Unable to get up within 5 minutes

Orthostatic BP and pulse

Uses device for mobility (specify)

Vision: Recent vision change/eye exam in past year

• **Visual acuity**, if **NO** eye exam in past year

Psychotropic medications:

Neuroleptics Benzodiazepines Antidepressants

2 or more drinks of alcohol each day

Other conditions

(e.g., Parkinson's, CVA, cardiac, neuropathy, severe OA)

Examination:

Cognition:

3-item recall: If FAIL → Cognitive status

Gait: Abnormal if:

Broad-based gait	Hesitant start
Extended arms	Heels do not clear toes of other foot
Path deviates	Heels do not clear floor

Balance:

Stance:	If indicated:
Side-by-side	Pick up penny off floor
Semi-tandem	Resistance to nudge
Full tandem	

Neuromuscular:

Quad strength: Rise from chair w/o using arms

Bradykinesia

Rigidity (e.g., cogwheeling)

Tremor

Hip ROM and knee exam, if indicated

Impression:

Strength problem

Parkinsonism

Other

Balance problem

Severe hip/knee OA

Lab/Tests:

EKG

Holter monitoring

Other

Treatment:

- Patient/surrogate counseling re: safety, community resources
- Home safety checklist or home inspection
- Strength/balance exercises (upper/lower body)
- Community exercise program
- Referral for physical therapy/Assistive device
- Change in medication
- Referral for eye exam
- Neurology consult
- Cardiology consult
- Other consult (e.g., orthopedics)

Falls and Mobility Disorders

Definition

An event that results in a person's inadvertently coming to rest on the ground or lower level with or without loss of consciousness or injury. Excludes falls from major intrinsic event (seizure, stroke, syncope) or overwhelming environmental hazard.

Etiology

Typically multifactorial. Composed of intrinsic (e.g., poor balance, weakness, chronic illness, visual or cognitive impairment), extrinsic (e.g., polypharmacy), and environmental (e.g., poor lighting, no safety equipment, loose carpets) factors. Commonly a nonspecific sign for one of many acute illnesses in older persons.

Evaluation

Exclude acute illness or underlying systemic or metabolic process (e.g., infection, electrolyte imbalance as indicated by history, examination, and laboratory studies).

- Laboratory tests for persons at risk: CBC, serum electrolytes, BUN, Cr, glucose, B12, thyroid function.
- Bone densitometry in women with additional risk factors for osteoporotic fracture.
- Imaging: neuroimaging if head injury or new, focal neurologic findings on examination or if a CNS process is suspected.
- Ambulatory cardiac monitoring rarely helpful.
- Arrhythmic evaluation only if clinical evidence of this diagnosis (eg, hx of cardiac events or abnormal ECG).
- Drug concentrations for anticonvulsants, antiarrhythmics, TCAs, and high-dose aspirin.

History

- Circumstances of fall (e.g., activity at time of fall, location, time)
- Associated symptoms (e.g., lightheadedness, vertigo, syncope, weakness, confusion, palpitations)
- Relevant comorbid conditions (e.g., prior stroke, parkinsonism, cardiac disease, diabetes mellitus, seizure disorder, depression, anxiety, anemia, sensory deficit, glaucoma, cataracts, osteoporosis, cognitive impairment)
- Previous falls
- Medication review, including OTC medications and alcohol use; note recent changes in medications; note drugs that have hypotensive or psychoactive effects
- Ask about persons' ability to complete activities of daily living: bathing, dressing, transferring, continence

Physical

Look for:

- Vital signs: postural pulse and BP changes at 1 and 2 minutes, fever, hypothermia
- Head and neck: visual impairment (especially poor acuity, reduced contrast sensitivity, decreased visual fields, cataracts), motion-induced imbalance (Dix-Hallpike test), bruit, nystagmus
- Musculoskeletal: arthritic changes, motion or joint limitations (especially lower extremity joint function), postural instability, skeletal deformities, podiatric problems
- Neurologic: slower reflexes, altered proprioception, altered mental status, focal deficits, peripheral neuropathy, gait or balance disorders, muscle weakness (especially leg), instability, tremor, rigidity
- Cardiovascular: heart arrhythmias, cardiac valve dysfunction
- Other: fever; hypothermia

Gait, Balance, and Mobility Assessment

- Functional gait and balance: Observe patient rising from chair, walking (stride length, velocity, symmetry), turning, sitting (Timed Get Up and Go test)
- Balance: Side-by-side, semi-tandem, and full tandem stance; Functional Reach test
- Mobility: Observe the patient's use of assistive device (cane, walker, or personal assistance), extent of ambulation, restraint use, footwear evaluation

Medications Associated with Increased Fall Risk

- Antipsychotics (especially phenothiazines)
- Sedatives, hypnotics (including benzodiazepines)
- Antidepressants (including MAOIs, SSRIs, TCAs)
- Antiarrhythmics (Class 1A)
- Anticonvulsants
- Anxiolytics
- Antihypertensives
- Diuretics

Prevention

Goal is to minimize risk of falling without compromising mobility and functional independence.

- Fall risk assessment should be part of routine primary health care visit (at least annually). Risk of falling significantly increases as number of risk factors increases.
- Assess for risk factors using a multidisciplinary approach, if appropriate, including medical and occupational therapy.
- Diagnose and treat underlying cause.
- Initiate fall prevention program targeting interventions for risk factors (see Preventing Falls Table). A structured, interdisciplinary approach should be used.
 - Offer hip protectors to non-bedbound residents of nursing homes and others at high risk -Available via <http://www.hipprotector.com>, <http://www.hipsaver.com>, or <http://www.fallguard.com/index.asp>.
 - Recommend minimum supplementation of calcium (1200 mg/d) and vitamin D (800 IU).
- Focus on patients with most common risk factors which include muscle weakness, history of falls, gait deficit, balance deficit, use of assistive devices, visual deficit, arthritis, impaired ADLs, depression, cognitive impairment, age > 80 yr.

Preventing Falls: Selected Risk Factors and Suggested Interventions

Risk Factor	Interventions
Medication-related factors	
Use of benzodiazepines, sedative-hypnotics, or antipsychotic	<p>Consider agents with less risk for falls (eg, atypical antipsychotics such as olanzapine, risperidone, or quetiapine)</p> <p>Taper and D/C medications, as possible</p> <p>Address sleep problems with nonpharmacologic interventions</p> <p>Educate regarding appropriate use of medications and monitoring for side effects</p>
Recent change in dose or number of prescriptions medications or use of ≥ 4 prescription medications or use of other medications associated with fall risk	<p>Review medication profile and modify, as possible</p> <p>Monitor response to medications and to dose changes</p>
Mobility-related factors	
Presence of environmental hazards (eg, improper bed height, cluttered walking surfaces, lack of railings, poor lighting)	<p>Improve lighting, especially at night</p> <p>Remove floor barriers (e.g., loose carpeting)</p> <p>Replace existing furniture with safer furniture (e.g., correct height, more stable)</p> <p>Install support structures (e.g., railings and grab bars, especially in bathroom)</p> <p>Use nonslip bathmats</p>
Impaired gait, balance, or transfer skills	<p>Refer to PT for comprehensive evaluation and rehabilitation</p> <p>Gait training</p> <p>Balance or strengthening exercises</p> <p>If able to perform semi-tandem stance, refer for Tai Chi, dance, yoga, or postural awareness</p> <p>Provide training in transfer skills</p> <p>Prescribe appropriate assistive devices</p> <p>Recommend protective hip padding</p> <p>Environmental changes (e.g., grab bars, raised toilet seats)</p> <p>Recommend appropriate footwear (e.g., good fit, non slip)</p>
Impaired leg or arm strength or range of motion, or proprioception	<p>Strengthening exercises (e.g., use of resistive rubber bands, putty)</p> <p>Resistance training 2-3 x/wk to 10 repetitions with full range of motion, then increase resistance</p> <p>Tai Chi</p> <p>Physical therapy</p>
Medical factors	
Parkinson's disease, osteoarthritis, depressive symptoms, impaired cognition, other conditions associated with increased falls	<p>Optimize medical therapy</p> <p>Monitor for disease progression and impact on mobility and impairments</p> <p>Determine need for assistive devices</p>
Postural hypotension: drop in SBP ≥ 20 mm Hg (or $\geq 20\%$) with or without symptoms, either immediately or within 3 min of standing	<p>Review medications potentially contributing and adjust dosing or switch to less hypotensive agents; avoid vasodilators and diuretics if possible</p>

Medical factors (continued)

Educate on activities to decrease effect (e.g., slow rising, ankle pumps, hand clenching, elevation of head of bed) and slow rising from recumbent or seat position

Prescribe pressure stockings (e.g., Jobst)

Liberalize salt intake

Caffeinated coffee (1 cup) or caffeine 100 mg with meals for postprandial hypotension

Consider medication to increase pressure (if HTN, heart failure, and hypokalemia not serious):

-midodrine (*ProAmatine*) 2.5-5 mg tid [T: 2.5, 5]

-fludrocortisone (*Florinef*) 0.1 mg qd-tid [T: 0.1]

Vision or hearing impairment

Refraction

Cataract extraction

Good lighting

Home safety evaluation

Cerumen removal

Audiological evaluation with hearing aid, if appropriate

Adapted with permission from the American Geriatrics Society

Source: Reuben DB, Herr KA, Pacala JT, et al. *Geriatrics At Your Fingertips: 2005, 7th Edition*. New York: The American Geriatrics Society; 2005: 65-69.

Falls and Mobility Disorders

Management Summary

Is there a specific treatable cause?

- Did this patient have syncope? Is a cardiac or neurologic work up necessary?
- Does the patient have Parkinson's disease, either diagnosed or unrecognized?

Is there a non-specific treatable risk factor?

- Does the patient have orthostatic hypotension? This can be remediated with:
 - Changing medications
 - Jobst or TED support stockings
 - Medications (e.g., caffeine if post-prandial, fludrocortisone, or midodrine)
- Is the patient taking benzodiazepines, neuroleptics, antidepressants or other sedating medications? Can another medicine be substituted?
- Is the patient drinking too much?
- Is the patient cognitively impaired?
- Is the patient's vision impaired? Is a referral to optometry or ophthalmology indicated?
- Does the patient have problems with (therapies in parentheses):
 - Quadriceps weakness (Tai Chi, leg strengthening exercise, PT)
 - Balance (Tai Chi, yoga, PT)
 - Gait (assistive device [cane if mild, walker if severe], PT)
- Can the home environment be made safer?
 - Home safety inspection
 - Grab bar installation
- Would hip protectors be indicated to try to prevent fractures?