Patient Screen

This screening test is to be administered to the patient in the office or over the phone, prior to seeing the physician.

If the patient is unable to complete the screen, the SURROGATE SCREEN should be used.

If it is a NEW patient, please ask the following question before beginning:

Who made the initial appointment for _____?

a) If patient made their own appointment, continue with screening test below box.

b) If someone else made the appointment, ask to speak to that person to assess whether to use the PATIENT or the SURROGATE SCREEN.

Positive screen for: *(Check all that apply)*

☐ **Cognitive Impairment** ☐ **Falls and Mobility Disorders**

☐ **Urinary Incontinence** ☐ **NONE of the above**

Start screen here:

1. Introduce 3-item recall here.

"I am going to ask you to remember 3 words. Listen carefully. The words are 'ball,' 'flag,' and 'tree.' Please repeat them. *(Wait for repetition)* Just to be sure, can you repeat them again? *(Wait for repetition)* And remember, I'm going to ask you about them in a couple of minutes."

For **NEW** patients read . . . . . In the *past 12 months,* (go to 2.)
OR
For **ESTABLISHED** patients read . . . . . Since your *last visit here,* (go to 2.)

2. Have you . . . *(read* a *through* d*)* **. . .**	**YES**	**NO**
a) Fallen 2 or more times?	☐ *	☐ (Falls)
b) Fallen and hurt yourself or needed to see a doctor because of the fall?	☐ *	☐ (Falls)
c) Been afraid that you would fall because of balance or walking problems?	☐ *	☐ (Falls)
d) Had a problem with urinary incontinence (or your bladder) that is bothersome enough that you would like to know more about how it could be treated?	☐ *	☐ (UI)

**If any answers are yes, indicate a positive screen for falls or UI in the box at the top of the page.*

3. Document 3-item recall now.

"Remember I asked you to keep in mind 3 words? Can you tell me the 3 words I told you earlier?"

Record 3-item recall results here:

Patient recalled:

☐ 2–3 items

☐* 1 item, no surrogate available (Cognitive Impairment)

☐* 0 items, no surrogate available (Cognitive Impairment)

☐* Refused, no surrogate available (Cognitive Impairment)

☐ Refused, no surrogate needed

**If patient recalled 1 or 0 items, or if they refused to do the recall activity, indicate a positive screen for cognitive impairment at the top of the page.*

Patient Name: _____

Med. Rec.# _____

Date of Birth: _____

PCP: _____

Surrogate Screen

This screening test is to be administered to the surrogate prior to the patient seeing the physician.

Positive screen for: *(Check all that apply)*

☐ **Cognitive Impairment** ☐ **Falls and Mobility Disorders**

☐ **Urinary Incontinence** ☐ **NONE of the above**

Start screen here:

For **NEW** patients read . . . . . In the *past 12 months,* (go to 1.)
OR
For **ESTABLISHED** patients read . . . . . Since your *last visit here,* (go to 1.)

1. Has he/she . . . *(read* a *through* d*)* **. . .**	**YES**	**NO**
a) Fallen 2 or more times?	☐ *	☐ (Falls)
b) Fallen and hurt him/herself or needed to see a doctor because of the fall?	☐ *	☐ (Falls)
c) Had balance or walking problems that make you afraid that he/she will fall?	☐ *	☐ (Falls)
d) Had a problem with urinary incontinence (or his/her bladder) that is bothersome enough that you would like to know more about how it could be treated?	☐ *	☐ (UI)

**If any answers are yes, indicate a positive screen for falls or UI in the box at the top of the page.*

2. Have you noticed that _____ has recently had more trouble than in the past with memory for day-to-day happenings around the house, such as remembering where he/she put things, recalling recent events, forgetting what you told him/her, or what he/she told you, remembering plans, appointments or phone calls?

☐ *Yes (Cognitive Impairment)

☐ No/Don't know

**If answer is yes, indicate a positive screen for cognitive impairment at the top of the page.*

Patient Name: _____

Med. Rec.# _____

Date of Birth: _____

PCP: _____

Cognitive Impairment

Patient Visit Note

To be completed by medical assistant

Reason for Visit: ☐ Failed memory screen ☐ Memory loss/confusion per patient and/or surrogate

History of Present Illness: History given by: ☐ Patient ☐ Surrogate

	YES	NO	
1. Problems with memory?	☐	☐	If **YES**, duration of symptoms: _____ weeks/months/years
2. Patient has someone to help him/her	☐	☐	If **YES**, primary caregiver: _____
3. Help is adequate for needs	☐	☐	If **NO**, patient needs *more* help with: *(Check all that apply)*

☐ Feeding ☐ Toileting ☐ Bathing ☐ Medications ☐ Money mgmt ☐ Shopping
☐ Bed to chair ☐ Dressing ☐ Telephone ☐ Meals ☐ Housework ☐ Transportation

---

To be completed by physician	YES	NO	*(If known diagnosis of dementia, complete items only as applicable)*
4. Known diagnosis of dementia	☐	☐	If **YES**, *known dx*, cause: _____

5. Current behavioral symptoms:

				YES	NO
Anxiety/nervousness/agitation	☐	☐	Violent/combative behavior	☐	☐
Insomnia/sleep problems	☐	☐	Psychosis *(delusions, hallucinations, paranoia)*	☐	☐
Wandering	☐	☐	*Other, specify:* _____	☐	☐

Examination: (Complete as appropriate)

1. Cognition:

Memory, remote - What happened to Pres. Kennedy? Where? Who shot him?
(if this question is not culturally appropriate for your patient, substitute another question to check for remote memory)

Memory, recent - What happened 9-11-01? Buildings/cities affected? Who was responsible?

Executive function - Bread is 75¢/loaf. Buy 2 loaves with $2. How much change? *(answer: $0.50)*
Fish is $8/lb. Buy 1/2 pound with $5. How much change? *(answer: $1.00)*

Language - Name animals in zoo/jungle/farm *(Normal ≥10/min)*

Visual/Spatial - Draw clock, put hands at 10 to 2. *(Normal = Correct number sequence, and position and hands display requested time)*
(clock face is on following page)

2. Affect:	YES*	NO
Often feel sad/blue/depressed?	☐	☐

***If YES, do GDS**

3. Neurologic status:	YES	NO
Rigidity *(e.g., cogwheeling)*	☐	☐
Tremor	☐	☐
Bradykinesia	☐	☐

Other neurologic findings: _____

Geriatric Depression Scale (GDS)

GDS: ***(Positive screen= 2 or more with *)***	YES	NO
Basically satisfied with life?	☐	☐*
Often bored?	☐*	☐
Often feel helpless?	☐*	☐
Prefer to stay home rather than go out?	☐*	☐
Feel pretty worthless way you are now?	☐*	☐

4. Decision-making capacity: Name of surrogate decision-maker: _____
Advance directive completed: ☐ **YES** ☐ **NO**

Diagnosis/Treatment Plan:

Lab/Tests: ☐ CBC ☐ Serum B_{12} ☐ Folate ☐ Biochemical panel ☐ RPR ☐ TSH ☐ Other: _____

Impression: ☐ Probable dementia ☐ Known dx dementia ☐ Mild cognitive impairment
☐ Normal mental status ☐ Other: _____

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

☐ **Patient education handouts:** ☐ Cognitive Impairment Patient Information Sheet
☐ Cognitive Impairment: Community Resources ☐ Alzheimer's Disease Treatment: Working with the Doctor

☐ **Patient/surrogate counseled:** ☐ Cholinesterase inhibitor discussed ☐ Memantine discussed ☐ Vitamin E discussed
☐ Medication prescribed: _____ ☐ Mgmt of behavior problems discussed ☐ Caregiver support ☐ Safety
☐ Driving cessation discussed ☐ Psychiatry/psychology ☐ Neurology consult ☐ Other: _____

Provider's Signature _____

Date of Service _____

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

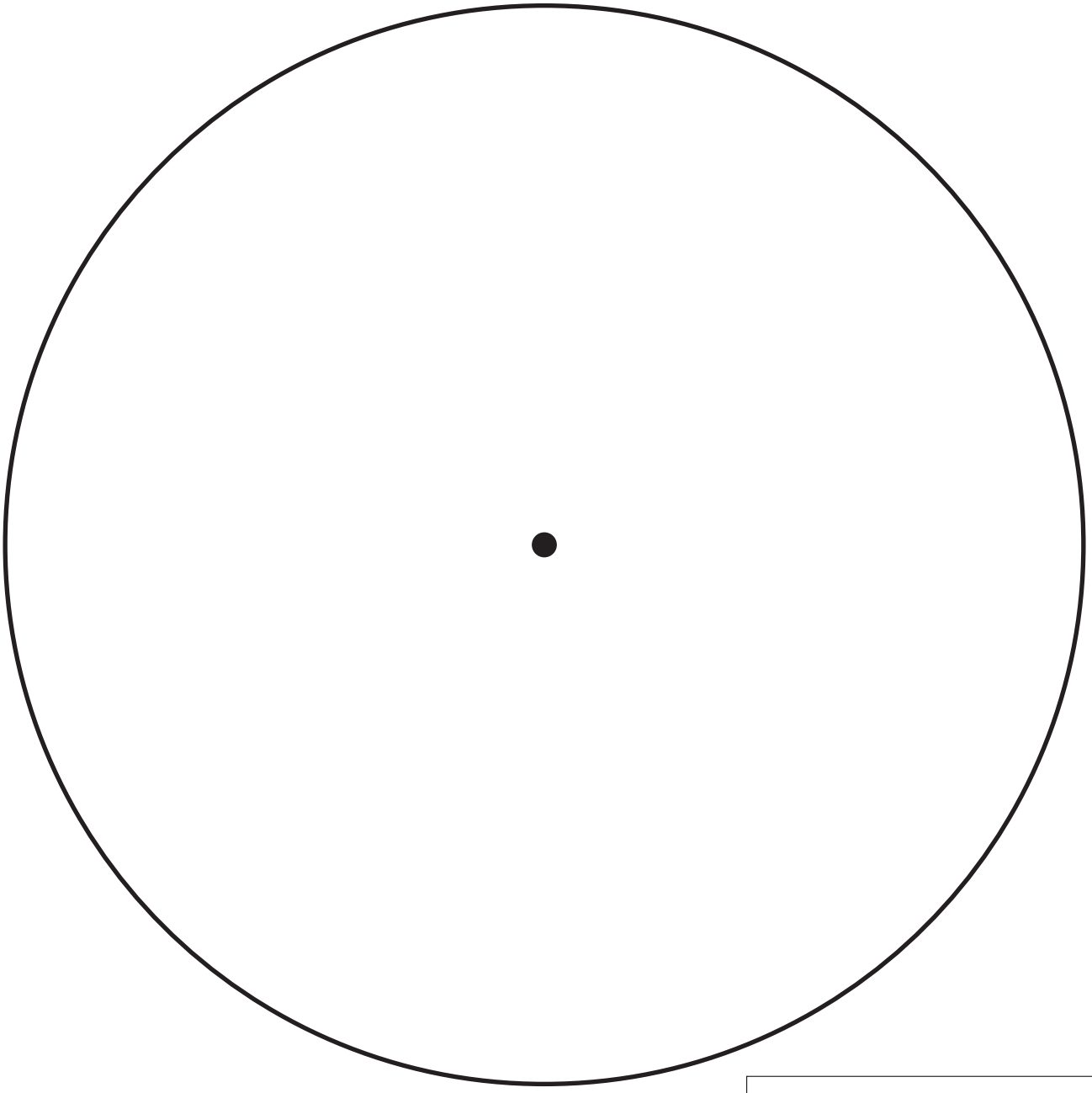
Clock Face Template

Page 2

Directions: On the blank clock face below, fill in the numbers on the clock and then draw the hands of clock showing the time, ten minutes to two (1:50 pm).

Patient: _____

Date drawn: _____



Patient Name: _____

Med. Rec.# _____

Date of Birth: _____

PCP: _____

Cognitive Impairment

Reason for Visit: Cognitive symptoms/failed cognitive screen

History: *(By patient/surrogate)*

Problems with memory; duration of symptoms
Known diagnosis of dementia (cause?)
Primary caregiver (specify name)

Adequate help for needs? If **NO**, needs more help with:

Feeding	Bathing	Money mgmt
Bed to chair	Telephone	Housework
Toileting	Medications	Shopping
Dressing	Meals	Transportation

Current behavioral symptoms:

Anxiety/nervousness/agitation	Insomnia/sleep problems
Violent/combative behavior	Wandering

Psychotic sx (e.g., delusions, hallucinations, paranoia)
Other (specify)

Examination: *(complete as appropriate)*

Cognition:
Memory:
Remote — What happened to Pres. Kennedy? Where? Who shot him? (or other appropriate question)

Recent — What happened 9-11-01? Buildings/cities affected? Who was responsible?

Executive Function:
a) Bread is 75¢/loaf. Buy 2 loaves with $2. Change?
b) Fish is $8/lb. Buy 1/2 pound with $5. Change?

Language:
– Name animals in zoo/jungle/farm *(Normal ≥10/min)*

Visual/spatial:
– Draw clock, put hands at 10 to 2.
(Normal = Correct number sequence, and position and hands display requested time)

Affect: Often feel sad, blue, or depressed? If **YES** → GDS
GDS: *(Positive screen= 2 or more with *)*

Basically satisfied with life?	(Yes/No*)
Often bored?	(Yes*/No)
Often feel helpless?	(Yes*/No)
Prefer to stay home rather than go out?	(Yes*/No)
Feel pretty worthless way you are now?	(Yes*/No)

Neurologic status:

Tremor	Rigidity (e.g., cogwheeling)
Bradykinesia	Other neurologic findings

Decision-making capacity:
Identify surrogate decision-maker Advance directive

Impression:

Probable/known dementia	Normal mental status
Mild cognitive impairment	Other

Lab/Tests:

CBC	RPR	Serum B12	Folate
Biochem panel	TSH	CT/MRI of head	Other

Treatment:

- Patient/surrogate counseling re: safety, caregiver support, community resources
- Cholinesterase inhibitor, memantine discussed
- Vitamin E discussed
- Mgmt of behavior problems discussed (medications needed?)
- Driving cessation discussed
- Psychiatry/psychology consult
- Neurology consult

Cognitive Impairment

Physician Fact Sheet

Dementia Syndrome

Definition

Chronic acquired decline in memory and in at least one other cognitive function (e.g., language, visual spatial, executive) sufficient to affect daily activities.

Estimated Frequencies of Dementia Causes

- AD: 60% to 70%
- Other progressive disorders: 15% to 30% (e.g., vascular, Lewy body, frontotemporal)
- Completely reversible dementia (e.g., drug toxicity, metabolic changes, thyroid disease, subdural hematoma, normal-pressure hydrocephalus): 2% to 5%

Diagnosis of AD

- Dementia syndrome
- Not due to another physical, neurologic, or psychiatric condition or to medications
- Gradual onset and continuing decline
- Deficits not occurring exclusively during delirium

Progression of AD

Mild Cognitive Impairment (preclinical) — MMSE: 26-30

- Report by patient or informant of memory loss
- Cognition otherwise intact
- Mild construction, language, or executive dysfunction
- Delayed paragraph recall
- No functional impairment, normal ADL
- Some cases of mild cognitive impairment may not progress to AD

Early, Mild Impairment (yr 1-3 from onset of symptoms) — MMSE: 22-28

- Disorientation for date
- Naming difficulties (anomia)
- Mild difficulty copying figures
- Social withdrawal
- Problems managing finances
- Recent recall problems
- Decreased insight
- Irritability, mood change

Middle, Moderate Impairment (yr 2-8) — MMSE: 10-21

- Disoriented to date, place
- Comprehension difficulties (aphasia)
- Getting lost in familiar areas
- Delusions, agitation, aggression
- Restless, anxious, depressed
- Problems with dressing, grooming
- Impaired new learning
- Impaired calculating skills
- Not cooking, shopping, banking

Late, Severe Impairment (yr 6-12) — MMSE: 0-9

- Nearly unintelligible verbal output
- Unable to copy or write
- Incontinent
- Remote memory gone
- No longer grooming or dressing
- Motor or verbal agitation

Noncognitive Symptoms

Psychotic Symptoms (e.g., delusions, hallucinations)

- Occur in about 20% of AD patients
- Delusions may be paranoid (e.g., people stealing things, spouse unfaithful)
- Hallucinations (approximately 11% of patients) are more commonly visual

Depressive Symptoms

- Occur in up to 40% of AD patients; may herald onset of AD
- May cause rapid acceleration of decline if untreated
- Need to suspect if patient stops eating or withdraws

Agitation or Aggression

- Occurs in up to 80% of patients with AD
- A leading cause of nursing-home admission
- Consider superimposed delirium or pain as a trigger

Risk and Protective Factors for AD

Definite risks	Possible risks	Possible protectors
Age	Other genes	Antioxidants (eg, vitamin E, beta carotene)
Family history	Head trauma	
Down syndrome	Hypercholesterolemia	
APOE-E4 (Caucasians)	Hypertension Lower educational level Depression	

Clinical Features Distinguishing AD and Other Types of Dementia

- AD: Memory, language, visual-spatial disturbances, indifference, delusions, agitation
- Frontotemporal dementia: Personality change, executive dysfunction, hyperorality, relative preservation of visual-spatial skills
- Lewy body dementia: Visual hallucinations, delusions, EPS, fluctuating mental status, sensitivity to antipsychotic medications
- Vascular dementia: Abrupt onset, stepwise deterioration, prominent aphasia, motor signs

Evaluation

Although completely reversible dementia (e.g., drug toxicity) is rare, identifying and treating secondary physical conditions may improve function.

- Hx: Obtain from family or other informant

- Physical and neurologic examination
- Assess functional status
- Evaluate mental status for attention, immediate and delayed recall, remote memory, executive function, and depression. Screening tests may include Mini-Cog, number of animals named in 1 minute, MMSE, GDS.

Laboratory Testing

CBC, TSH, B12, folate, serum calcium, liver and kidney function tests, electrolytes, serologic test for syphilis (selectively); at this time, genetic testing and commercial "Alzheimer blood tests" are not recommended for clinical use.

Neuroimaging

The likelihood of detecting structural lesions is increased with:

- Onset age < 60
- Focal (unexplained) neurologic signs or symptoms
- Abrupt onset or rapid decline (weeks to months)
- Predisposing conditions (e.g., metastatic cancer or anticoagulants)

Neuroimaging may detect the 5% of patients with clinically significant structural lesions that would otherwise be missed.

FDG-PET scans approved by Medicare for atypical presentation or course of AD in which frontotemporal dementia diagnosis is suspected.
See **www.petscaninfo.com/portals/pat/medicare_guidelines_alzheimers**

Treatment

Primary goals of treatment are to improve quality of life and maximize functional performance by enhancing cognition, mood, and behavior.

General Treatment Principles

- Identify and treat comorbid physical illnesses (e.g., HTN, diabetes mellitus)
- Avoid anticholinergic medications, eg, benztropine, diphenhydramine, hydroxyzine, oxybutynin, TCAs, clozapine, thioridazine
- Set realistic goals
- Limit prn psychotropic medication use
- Specify and quantify target behaviors
- Maximize and maintain functioning

Nonpharmacologic Approaches

- To improve function:
  - Behavior modification, scheduled toileting, and prompted toileting for UI
  - Graded assistance (as little help as possible to perform ADLs), practice, and positive reinforcement to increase independence
- For problem behaviors:
  - Music during meals, bathing
  - Walking or light exercise
  - Simulate family presence with video or audio tapes
  - Pet therapy

- Speak at patient's comprehension level
- Bright light, "white" noise (i.e., low level, background noise)

Pharmacologic Treatment of Cognitive Dysfunction in AD

- Patients with a diagnosis of mild or moderate AD should be offered treatment with a cholinesterase inhibitor that will increase the level of acetylcholine in the brain (see Cognitive Enhancers Table)
  - Controlled data show modest symptomatic benefit for cognition, mood, behavioral symptoms, and daily function of cholinergic drugs compared with placebo for 1 yr, and open trials demonstrate benefit for 3 yrs.
  - Only 10%-25% of patients taking cholinesterase inhibitors show clinical improvement, but 80% have less rapid decline.
  - Initial studies show benefits of these drugs for patients with dementia associated with Parkinson's disease, Lewy body dementia, and vascular dementia.
  - Cholinesterase inhibitors have not convincingly demonstrated that they slow progression of mild cognitive impairment to dementia.
  - Cholinesterase inhibitors may attenuate noncognitive symptoms and delay nursing-home placement.
  - To evaluate response to cholinesterase inhibitor:
    - Elicit caregiver observations of patient's behavior (alertness, initiative) and follow functional status (ADLs and IADLs).
    - Follow cognitive status (e.g., improved or stabilized) by caregiver's report or serial ratings of cognition (e.g., Mini-Cog, MMSE).
- Memantine *(Namenda)* demonstrated modest efficacy compared with placebo in moderate to severe AD as monotherapy and when combined with donepezil *(Aricept)*.
- Vitamin E at 1000 IU bid found to delay functional decline in AD (caution in those with cardiovascular disease because ≥ 400 IU may increase mortality).
- *Ginkgo biloba* is not generally recommended because clinical trial results are not definitive, and preparations vary because such nutriceuticals are not regulated by the FDA.
- Estrogen replacement therapy in older women may increase risk of developing AD.

Cognitive Enhancers

Drug	Formulations	Dosing
Donepezil (Aricept)*	T: 5, 10; ODT: 5, 10;** S: 5mg/mL	Start at 5 mg qd, increase to 10 mg qd after 1 mo (CYP2D6, 3A4) (L)
Galantamine (Razadyne)*** [formerly Reminyl]	T: 4, 8, 12; S: 4 mg/mL	Start at 4 mg bid, increase to 8 mg bid after 4 wk; recommended dose 8 or 12 mg bid (CYP2D6, 3A4) (L)
Extended Release (Razadyne ER)	C: 8, 16, 24	Start at 1 capsle daily, preferably with food; titrate as above
Revastigmine (Exelon)*	T: 1.5, 3, 4.5, 6	Start at 1.5 mg bid and gradually titrate up to 6 mg bid as tolerated; retitrate if drug is stopped (K)
Memantine (*Namenda* [NMDA antagonist])	T: 5, 10	Start at 5 mg qd, increase by 5 mg at weekly intervals to maximum of 10 mg bid; reduce dose if kidney function impaired (K)

* Cholinesterase inhibitors. Adverse effects increase with higher dosing. Continue if improvement or stabilization occurs; stopping drugs can lead to rapid decline. Possible adverse effects include nausea, vomiting, diarrhea, dyspepsia, anorexia, weight loss, leg cramps, bradycardia, insomnia and agitation.

** ODT= oral disintegrating tablet.

*** Increased mortality found in controlled studies of mild cognitive impairment.

(K) renal elimination

(L) hepatic elimination

Treatment of Agitation

First, identify and examine context of behavior (is it harmful to patient or others), environmental triggers (e.g., overstimulation, unfamiliar surroundings, frustrating interactions), exclude underlying physical discomfort (e.g., illnesses or medication), consider nonpharmacologic strategies.

Agitation Treatment Guidelines

Symptom	Drug*	Dosage	Formulations
Agitation in context of nonacute psychosis	Risperidone* *(Risperdal)*	0.25-1.5 mg/d	T: 0.25, 0.5, 1, 2, 3, 4; S: 1 mg/ml
	Olanzapine* *(Zyprexa)*	2.5-10 mg/d	T: 2.5, 5, 7.5, 10, 15, 20
	(Zydis)	2.5-10 mg/d	T: oral disintegrating 5, 10, 15, 20
	Quetiapine* *(Seroquel)*	25-400 mg/d	T: 25, 100, 200, 300
	Aripiprazole* *(Abilify)*	5-10 mg/d	T: 5, 10, 15, 20, 30
Acute psychosis agitation if IM or IV is needed	Haloperidol *(Haldol)*	0.5-2 mg/d**	T: 0.5, 1, 2, 5, 10, 20; S: 2 mg/ml; Inj
Agitation in context of depression	SSRI, eg, citalopram *(Celexa)*	10-30 mg/d	T: 20, 40; S:2 mg/mL
Anxiety, mild to moderate irritability	Trazodone *(Desyrel)*	50-100 md/d†	T: 50, 100, 150, 300
	Buspirone *(BuSpar)*	30-60 mg/d‡	T: 5, 10, 15, 30
As a possible second-line treatment for significant agitation or aggression	Divalproex sodium *(Depakote, Epival)*	500-1500 mg/d§	T: 125, 250, 500; S: syrup 250 mg/ml, sprinkle capsule: 125
	Carbamazepine *(Tegretol)*	300-600 mg/d§§	T: 200; ChT: 100; S: sus 100/5 ml
	Olanzapine *(Zyprexa IntraMuscular)*	2.5-5 mg IM	Inj
Sexual aggression, impulse-control symptoms in men	Atypical antipsychotic or divalproex	See dosages above	
	If no response, estrogen *(Premarin)* or medroxyprogesterone *(Depo-Provera)*	0.625-1.25 mg/d 100 mg IM/wk	T: 0.3, 0.625, 0.9, 1.25, 2.5 Inj

* Use with caution in patients with cerebrovascular disease or hypovolemia; may increase risk of cerebrovascular adverse events compared with placebo; similiar comparative data not available for other atypical antipsychotics.

** May need to give higher doses in emergency situations; should be used for only short periods of time.

† Small divided daytime dosage and larger bedtime dosage; watch for sedation and orthostasis.

‡ Can be given bid; 2-4 wk for adequate trial.

§ Can monitor serum levels; usually well tolerated; check CBC, platelets for agranulocytosis, thrombocytopenia risk in older patients.

§§ Monitor serum levels; periodic CBCs, platelet counts secondary to agranulocytosis risk. Beware of drug-drug interactions.

Caregiver Issues

- Over 50% develop depression.
- Physical illness, isolation, anxiety, and burnout are common.
- Intensive education and support of caregivers may delay patient institutionalization.
- Adult day care for patients and respite services for caregivers may help.
- Alzheimer's Association offers support, education; chapters are located in major cities throughout US.
- Family Caregiver Alliance offers support, education, information for caregivers.

Additional References

Doody RS, Stevens JC, Beck C, et al. Practice parameter: management of dementia (an evidence-based review): report of the Quality Standards Subcommittee of the American Academy of Neurology. *Neurology* 2001; 56(9):1154-1166.

Palmer K, Fratiglioni L, Winblad B. What is mild cognitive impairment? Variations in definitions and evolution of nondemented persons with cognitive impairment. *Acta Neuro Scand.* 2003; 107 (Suppl 179): 14-20.

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: 41-45.

Cognitive Impairment

Management Summary

Is there a specific treatable cause?

- Has a reversible causes evaluation been conducted? (CBC, biochemical panel, TSH, B12, and perhaps syphilis serology, folate, and neuroimaging study)?
- Is this patient likely to have Alzheimer's disease (prominent memory, language, and visual-spatial impairment)? Consider a cholinesterase inhibitor and/or memantine. Also consider vitamin E at 1000 IU bid.
- Is this patient likely to have vascular dementia (stepwise course frequently with focal neurologic signs). If so, consider aspirin or other antiplatlet agent.
- Is this an atypical dementia (visual hallucinations and Parkinsonian features suggest Lewy body dementia; personality changes such as poor boundary setting, hyperorality suggest frontotemporal dementia)? If so, consider referring to a psychiatrist or neurologist.

Is there a non-specific treatable condition?

- Does patient have behavioral symptoms? If yes, consider the following therapies (in parentheses) and monitor response during subsequent visits:
  - Agitation in the context of non-acute psychosis (atypical antipsychotic, but remember to review risks with patient/family)
  - Agitation in the context of depression (SSRI antidepressants)
  - Hallucinations or delusions (atypical antipsychotic)
  - Insomnia or sleep problems (sleep hygiene measures or trazodone)
- Is the patient depressed? Consider SSRI antidepressant.
- Is the patient drinking too much? Insist that the patient stop drinking.
- Is there caregiver stress? If yes, refer to community resources (give handout). Consider social work referral.
- If all else fails, consider psychiatry referral.

Geriatric Depression Scale 5-item

Positive screen: 2 or more asterisked (*) responses

	YES	NO
1. Are you basically satisfied with your life?	☐	☐*
2. Do you often get bored?	☐*	☐
3. Do you often feel helpless?	☐*	☐
4. Do you prefer to stay at home rather than going out and doing new things?	☐*	☐
5. Do you feel pretty worthless the way you are now?	☐*	☐

Source: Hoyt MT, Alessi CA, Harker JO, et al. Development and Testing of a Five-Item Version of the Geriatric Depression Scale. Journal of the American Geriatrics Society 1999 Jul; 47(7):873-8.

Patient Name: _____

Med. Rec.# _____

Date of Birth: _____

PCP: _____

Cognitive Impairment and Driving

Physician's Responsibilities

As of 2003, the following 11 states REQUIRE that physicians report patients with disorders characterized by lapses of consciousness, such as dementia, Alzheimer's, or other related conditions:

Arizona

California

Delaware

Georgia

Idaho

Kentucky

Maine

Nevada

New Jersey

Oregon

Pennsylvania

Two states REQUIRE that patients provide physicians with permission before allowing them to submit their health information to the DMV:

Kansas

Vermont

One state, **Alaska**, reviews all medical information submitted to the DMV, but does not expect physicians to report their patients.

One state, **Indiana**, REQUIRES the reporting of handicapping conditions to the state Board of Health within 60 days of diagnosis, treatment or provision of care by a physician.

The 35 other states and the District of Columbia ENCOURAGE and PERMIT reporting of health problems that could affect a person's ability to safely operate a motor vehicle, but they DO NOT REQUIRE it.

Source:
Wang CC, Kosinski CJ, Schwartzberg JG, Shanklin AV. Physician's Guide to Assessing and Counseling Older Drivers. Washington, DC: National Highway Traffic Safety Administration; 2003. Chapter 8.

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	☐	☐
Tripped/stumbled over something	☐	☐
Lightheadedness/palpitations	☐	☐
Unable to get up within 5 minutes	☐	☐
Needed assistance to get up	☐	☐

3. Orthostatics: *(Measure after 1–2 min. in specified position)*
Lying: BP: _____/_____ Pulse: _____
Standing: BP: _____/_____ Pulse: _____

4. Uses device for mobility:

	YES	NO
Cane	☐	☐
Walker	☐	☐
Wheelchair	☐	☐
Other, specify: _____	☐	☐

5. Vision:

	YES	NO
Noticed recent vision change	☐	☐
Eye exam in past year	☐	☐

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: _____	☐	☐
Benzodiazepines: _____	☐	☐
Antidepressants: _____	☐	☐

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

3. Balance:

	YES	NO
Side-by-side, stable 10 sec	☐	☐
Semi-tandem, stable 10 sec	☐	☐
Full tandem, stable 10 sec	☐	☐

If indicated:

	YES	NO
Can pick up penny off floor	☐	☐
Resistance to nudge	☐	☐

4. Neuromuscular:

	YES	NO
Quad strength: *Can rise from chair w/o using arms*	☐	☐
Rigidity *(e.g., cogwheeling)*	☐	☐
Bradykinesia	☐	☐
Tremor	☐	☐

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
Extended arms
Path deviates
Hesitant start
Heels do not clear toes of other foot
Heels do not clear floor

Balance:

Stance:
Side-by-side
Semi-tandem
Full tandem

If indicated:
Pick up penny off floor
Resistance to nudge

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

Physician Fact Sheet

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

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?

Urinary Incontinence

Patient Visit Note

History of Present Illness:

To be completed by medical assistant

1. Results of dip UA:

Blood:	Neg	Tr	+	++	+++
Leukocyte esterase:	Neg	Tr	+	++	+++
Nitrite:	Neg	Pos			
Glucose:	Neg	Pos			

2. Duration of symptoms: _____ wks/mos/yrs

3. Characteristics of voiding:

	YES	NO
Pain while urinating	☐	☐
Hesitancy while urinating	☐	☐
Feeling of incomplete emptying	☐	☐

Frequency during: ☐ day time ☐ night time

4. Problem using/getting to the toilet ☐ ☐

If YES, explain: _____

5. Incontinence:

	YES	NO
Sudden urge to void (urgency)	☐	☐
Loss with cough, laugh, bend (stress)	☐	☐
Continuous leakage	☐	☐
Other, specify: _____	☐	☐

6. Prior surgery:

Prostate surgery (male)	☐	☐
Pelvic surgery (female)	☐	☐

7. Prior treatment:

Bladder retaining	☐	☐
Pelvic/Kegel's exercises	☐	☐
Pessary (female)	☐	☐

Medications, specify: _____

Surgery, specify: _____

Examination: *To be completed by physician*

General:

Lungs:	NO	YES
Rales	☐	☐, _____
Effusion	☐	☐, _____

Cardiovascular:	NO	YES
S3	☐	☐
↑JVP/hepatojug. reflux	☐	☐
Edema	☐	☐, _____

Cognition: 3-Item recall ☐ PASS ☐ FAIL If FAIL → Cognitive status: _____

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

Genital:	NO	YES
Uterine prolapse	☐	☐, _____
Cystocele	☐	☐, _____
Urine loss with cough	☐	☐
Atrophic	☐	☐

	NO	YES
Prostate enlargement	☐	☐, _____
Prostate mass	☐	☐, _____
Fecal impaction	☐	☐
↓rectal tone	☐	☐

Diagnosis/Treatment Plan/Medical Decision Making:

Lab/Tests: ☐ Send urine for C&S ☐ Bladder US with PVR ☐ Other: _____

Impression: ☐ UI, type: ☐ Stress ☐ Urgency ☐ Functional ☐ Overflow ☐ Mixed

Contributing factors: ☐ Meds ☐ Volume overload ☐ Co-morbidity ☐ Gait ☐ UI, prostate-related ☐ Urinary tract infection

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

☐ **Patient education handouts:** ☐ Bladder Retraining ☐ Urinary Incontinence: Community Resources ☐ Exercising Your Pelvic Muscles ☐ Urinary Incontinence Patient Information Sheet

☐ **Patient counseled:** ☐ Behavioral treatment: _____ ☐ Address contributing factors _____ ☐ Medication for UI (If behavioral treatment unsuccessful): _____

For urge/mixed and if PVR <100 ml:
oxybutynin 2.5-5mg BID-TID, or XL 5-20 mg qd, or
patch 3.9mg, applied 2x/week, or
tolterodine 1-2 mg BID, or LA 2-4mg qd, or
trospium 20 mg BID (if age >75, taper to qd; if CrCl<30ml/min, qd at HS), or
darifenacin 7.5-15 mg qd, or
solifenacin 5-10mg qd

☐ Medication for UTI: _____ x 7days

☐ Gynecology consult ☐ Urology consult ☐ Other: _____

Provider's Signature _____

Date of Service _____

Patient Name: _____

Med. Rec.# _____

Date of Birth: _____

PCP: _____

Urinary Incontinence

History:

Results of dip UA:
Blood Leukocyte esterase Nitrite Glucose

Duration of symptoms

Characteristics of voiding:
Feeling of incomplete emptying
Pain while urinating
Hesitancy while urinating
Frequency during: _____ Day time _____ Night time

Problems using/getting to the toilet

Incontinence:
Sudden urge to void (urgency) Continuous leakage
Loss with cough/laugh/bend (stress) Other symptoms

Prior surgery:
Prostate surgery ***(male)*** Pelvic surgery ***(female)***

Prior treatment:
Pelvic/Kegel's exercises Bladder retraining
Pessary ***(female)*** Medications Surgery

Examination:

Lungs:
Rales Effusion

Cardiovascular:
↑ JVP/hepatojug. reflux S_3 Edema

Cognition:
3-item recall: If FAIL → Cognitive status

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

Genital:

Uterine prolapse	Prostate enlargement
Cystocele	Prostate mass
Urine loss with cough	Fecal impaction
Atrophic	Rectal tone

Diagnosis:

Impression:

UI, type: Stress, Urgency, Functional, Overflow, Mixed
Contributing factors: Medications, Co-morbidity, Gait
Volume overload, Prostate-related, Urinary tract infection

Lab/Tests:

Bladder US with PVR Send urine for C&S Other

Treatment:

- Pelvic exercises
- Bladder retraining
- Other behavioral treatment
- Address contributing factors
- Medication for UI (if behavioral tx unsuccessful):

For urge/mixed UI and if PVR <100 ml:
oxybutynin 2.5–5 mg BID-TID, or XL 5–20 mg qd, or
patch 3.9 mg, applied 2 x per week, or
tolterodine 1–2 mg BID, or LA 2–4 mg qd, or
trospium 20 mg BID (if age >75, taper to qd;
if CrCl<30 ml/min, qd at HS); or
darifenacin 7.5–15 mg qd, or
solitenacin 5–10 mg qd

- Medication for UTI (x 7days)
- Urology consult
- Gynecology consult

Urinary Incontinence

Physician Fact Sheet

General Information

UI is not a normal part of aging. It is a loss of urine control due to a combination of

- Genitourinary pathology
- Age-related changes
- Comorbid conditions and medications
- Environmental obstacles

Classification

Potentially Reversible Causes of Incontinence (DRIP mnemonic)

Delirium

Restricted mobility (illness, injury, gait disorder, restraint)

Infection (acute, symptomatic); **I**nflammation (atrophic vaginitis); **I**mpaction of stool

Polyuria (diabetes mellitus, caffeine intake, volume overload); **P**harmaceuticals (diuretics, autonomic agents, psychotropics)

Common Cause

Urge Incontinence: Detrusor muscle overactivity (uninhibited bladder contractions); small to large volume loss; may be idiopathic or associated with CNS lesions or bladder irritation from infection, stones, tumors; may be associated with impaired contractility and retention called detrusor hyperactivity with impaired contractility [DHIC].

Stress Incontinence: Failure of sphincter mechanisms to remain closed during bladder filling (often due to insufficient pelvic support in women and trauma from prostate surgery in men); loss occurs with increased intra-abdominal pressure.

Overflow Incontinence: Impaired detrusor contractility or bladder outlet obstruction. Impaired contractility—chronic outlet obstruction, diabetes mellitus, vitamin B12 deficiency, tabes dorsalis, alcoholism, or spinal disease. Outlet obstruction—in men, BPH, cancer, stricture; in women, prior incontinence surgery or large cystocele.

Mixed Incontinence: Combined urge and stress UI is common in older women. A similar syndrome may develop in men after prostatectomy.

Other (Rare): Bladder-sphincter dyssynergia, fistulas, reduced detrusor compliance.

Risk Factors

- Age-related changes in GU tract (e.g., BPH, atrophic urethritis)
- Constipation
- Dementia, depression, stroke, Parkinson's disease
- HF, COPD, or chronic cough
- Impaired ADLs
- Obesity
- Parity

Evaluation

History

- Sudden, compelling urgency suggests urge UI.
- Loss with cough, laugh, or bend suggests stress UI.
- Continuous leakage suggests intrinsic sphincter insufficiency, overflow UI.
- Onset, frequency, volume, timing, precipitants (e.g., caffeine, diuretics, alcohol, cough, medications).

Physical Examination

- Functional status (e.g., mobility, dexterity)
- Mental status
- Findings:
  - Bladder distension
  - Cord compression (interosseus muscle wasting, Hoffmann's or Babinski's signs)
  - Rectal mass or impaction
  - Sacral root integrity (anal sphincter tone, anal wink, perineal sensation)
  - Volume overload, edema

Male GU

Prostate consistency; symmetry; for uncircumcised, check phimosis, paraphimosis, balanitis

Female GU

Atrophic vaginitis; pelvic support (cystocele, rectocele, prolapse)

Testing

Bladder Diary: Record time and volume of incontinent, continent voids; activities and time of sleep; knowing oral intake is sometimes helpful.

Standing Full Bladder Stress Test: Relax perineum and cough once—immediate loss suggests stress, several seconds' delay suggests detrusor overactivity.

Postvoid Residual: If > 100 ml, repeat; still > 100 ml suggests detrusor weakness, neuropathy, medications, fecal impaction, outlet obstruction, or DHIC. (If available, bladder ultrasound is preferred to catheterization.)

Laboratory: UA and urine C&S; glucose and calcium if polyuric; renal function tests after voiding and B12 if urinary retention; urine cytology if hematuria or pain.

Urodynamic Testing: Not routinely indicated; indicated before corrective surgery, when diagnosis is unclear, or when empiric therapy fails.

Management

In a stepped approach, treat all transient causes first (DRIP). Avoid caffeine, alcohol, and if nocturia is a problem, minimize evening intake of fluids.

Nonpharmacologic Behavioral Therapy (First-Line Therapy)

Urge and Stress UI: Bladder retraining, regular voiding (based on bladder diary, or every 2 hrs.), urgency control—when urgency occurs, sit or stand quietly, focus on letting urge pass, do pelvic muscle contraction, when no longer urgent walk slowly to the bathroom and void. When no incontinence for 2 d, increase voiding interval by 30-60 minutes until voiding every 3-4 hours. Pelvic muscle (Kegel's) exercises —isolate pelvic muscles (avoid thigh, rectal, buttocks contraction); perform 3-10 sets of 10 contractions at max strength daily; progressively longer (up to 10-sec) contractions; follow-up and encouragement necessary; consider biofeedback for training if initial instructions are not successful. Learning to use vaginal weights is an alternative method for strengthening pelvic muscles.

Cognitively Impaired Persons: Prompted toileting (ask if patient needs to void), take them to the toilet starting at 2- to 3-hour intervals during the day; encourage patients to report continence status; praise patient when continent and responds to toileting.

Pessary: May benefit women with vaginal or uterine prolapse who experience retention or stress UI.

DHIC: Treat urge first with behavioral methods; self-intermittent clean catheterization if needed.

Nocturnal Frequency in the Absence of Heart Failure (HF)

- Two voidings per night is probably normal for older adults.
- Exclude sleep difficulties, then consider if the condition is due to excessive output or urinary tract dysfunction.
- Bladder diary with measured voided volumes can be very helpful. If between bedtime and awakening the patient voids more than one third of their total 24-hour output, this is excessive fluid excretion.
  - All patients should restrict fluid intake 4 hours before bedtime.
  - If stasis edema is present, have patient wear pressure-graded stockings.
  - If no stasis edema, a potent, short-acting loop diuretic can be used in the afternoon or early evening to induce a diuresis before bedtime, e.g., bumetanide 0.5-1.5 mg titrated to achieve a brisk diuresis.
  - Evaluate for other contributing factors to volume overload or diuresis (e.g., HF, poorly controlled diabetes).

Pharmacologic Therapy

There are limited data showing benefit of topical estrogen replacement in urge and possibly stress UI.

Drugs to Treat Urge or Mixed Urinary Incontinence

Drug	Dosage	Formulations	Adverse Events (Metabolism)
✓Oxybutynin *(Ditropan, Ditropan XL, Oxytrol)*	2.5-5.0 mg bid—tid 5-20 mg qd 3.9 mg/d (apply patch 2 x /wk)	T: 5; S: 5 mg/5 ml SR: 5, 10, 15 transdermal 39 cm^2 patch	Dry mouth, blurry vision, dry eyes, Delirium/confusion, constipation Pch: Side effects similiar to those of placebo; may irritate skin (L)
✓Tolterodine *(Detrol, Detrol LA)*	2 mg bid 4 mg qd	T: 1, 2 C: ER 2, 4	Dry mouth, blurry vision, dry eyes, constipation, delirium, hallucinations, P450 interactions (L, CYP3A4 and CYP2D6)
Trospium *(Sanctura)*	20 mg qd-bid (on empty stomach) Dose once daily at hs in patients >75 yr old and in those with CrCl <30 mL.	T:20	Dry mouth, constipation, dyspepsia, headache. Caution: liver dysfunction (L, K)
Darifenacin *(Enablex)*	7.5-15 mg qd	T: 7.5, 15	Dry mouth, constipation (L, CYP3A4 and CYP2D6)
Solifenacin *(VESIcare)*	5-10mg qd	T: 5, 10	Max dose 5 mg with ketoconazole or other potent CYP3A4 inhibitors or CrCl<30 mL/min or moderate liver impairment; not recommended with severe liver impairment; blurred vision, dry mouth, constipation, urinary retention, urinary tract infection (L)

✓= drugs preferred in treating older adults. Note: Oxybutynin is listed as drug to avoid in Beers criteria.

(K) renal elimination

(L) hepatic elimination

Surgical Therapy

- Consider for the 50% of women whose stress UI does not respond adequately to behavioral treatment and exercise.
- Type of surgery depends on type of urethral function impairment, patient-related factors, and coexisting conditions (e.g., prolapse).
  - Retropubic colposuspension for prolapse.
  - Periurethral injection for intrinsic sphincter function.
  - Newer minimally invasive techniques (eg, tension-free vaginal tape) should result in substantial improvement or cure in at least 75% of surgically treated patients.

Catheter Care

- Use catheter ***only*** for chronic urinary retention, to protect wounds such as pressure ulcers, and when requested by patients or families to promote comfort (e.g., at end of life).
- Use closed drainage system only; avoid topical or systemic antibiotics or catheters treated with antibiotics. Silver alloy hydrogel catheters reduce UTI by 27% to 73%.
- Bacteriuria is universal; treat only if symptoms (ie, fever, inanition, anorexia, delirium), or if bacteriuria persists after catheter removal.
- Culture best taken from a newly inserted catheter.
- Replace catheter if symptomatic bacteriuria occurs, then culture urine.
- Nursing facility patients with catheters should be kept in separate rooms.
- For acute retention catheterize for 7-10 d, then do voiding trial after catheter removal, never clamping.
- **Replacing Catheters:** Routine replacement not necessary. Changing every 4-6 wk is reasonable to prevent blockage. Patients with recurrent blockage need increased fluid intake and possibly acidification of urine.

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: 85-88

Urinary Incontinence

Management Summary

Is there a specific treatable cause?

- Does the patient have a UTI? If yes, treat patient for at least 7 days with appropriate antibiotic and then reassess symptoms.
- Does the patient have a urological or gynecological cause (e.g., enlarged prostate, prolapse) that needs a referral?

Are there treatable contributing factors?

- Is the patient taking medications that could aggravate the problem (loop diuretics, benzodiazepines, calcium channel blockers, alpha-blockers or agonists, ACE inhibitors, or antihistamines)? If so, can another medicine be substituted?
- Is the patient's liquid or alcohol intake too high? Is the patient drinking caffeinated beverages?
- Does the patient have impaired mobility or cognitive impairment?
- Does the patient have stress incontinence (leakage with coughing, laughing, bending, sneezing) or urge incontinence (leakage with sudden overwhelming urgency)? If yes, consider behavioral treatment.
- If the patient does not respond to initial behavioral therapy, consider referral for biofeedback. If they still don't respond and they have urge incontinence, consider bladder relaxant therapy. If they have stress incontinence, consider urology or gynecology referral. This can also be considered for patients with urge incontinence who do not respond to medications.
- If all else fails or patient prefers no behavioral, medical, or surgical treatment, consider continence products, such as diapers (give community resources).