

CASE STUDY 2



Mr. Ying is an 84 year-old Asian male who lives in an apartment that adjoins his son's house. Mr. Ying is accompanied to this clinic visit by his son, who assists with the history. Although previously outgoing and social, Mr. Ying recently has been limiting his outside activities.

Self-Risk Assessment

Mr. Ying completes the *Stay Independent* brochure in the waiting room. He circles "Yes" to the questions, "I use or have been advised to use a cane or walker to get around safely," "Sometimes I feel unsteady when I am walking," and "I am worried about falling." His risk score is 4.

Gait, Strength & Balance Assessment (Completed and documented by medical assistant)

- Timed Up and Go:** 15 seconds using his cane. Gait: slow with shortened stride and essentially no arm swing. No tremor, mild bradykinesia.
- 30-Second Chair Stand Test:** Able to rise from the chair without using his arms to push himself up. Score of 9 stands in 30 seconds.
- 4-Stage Balance Test:** Able to stand with his feet side-by-side for 10 seconds, but in a semi-tandem stance loses his balance after 3 seconds.

History

Mr. Ying stated that for the past year he has felt dizzy when he stands up after sitting or lying down and that he often needs to "catch himself" on furniture or walls shortly after standing. His dizziness is intermittent but happens several times per week.

Mr. Ying cannot identify any recent changes in his medications or other changes to his routine that would explain his symptom. He says there is no pattern and he experiences dizziness at different times during the day and evening. He denies experiencing syncope, dyspnea, vertigo, or pain accompanying his dizziness.



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Mr. Ying also remarks that, independent of his dizziness symptoms, he feels unsteady on his feet when walking. His son mentions that he often sees his father “teetering.” Mr. Ying requires help with bathing. He has started using a cane, but doesn’t like to use it inside.

When asked about previous falls, he says he hasn’t fallen. However, he says his elderly neighbor recently fell and is now in a nursing home. Now he’s fearful about falling and becoming a burden to his family.

Although Mr. Ying has spinal stenosis, a recent steroid injection has relieved severe low back pain. Now he suffers only from lower back stiffness for several hours in the morning. He denies any specific weakness in his legs.

Medical Problem List

- Hypertension
- L3-5 spinal stenosis and chronic low back pain and leg numbness/paresthesias
- Depression
- Benign prostatic hypertrophy, with 3-4x/night nocturia and occasional incontinence
- Hyperlipidemia
- Gastroesophageal reflux disease
- B12 deficiency
- Allergic rhinitis
- Glaucoma
- Nummular eczema

Medications

1. Valsartan 80 mg by mouth daily
2. Citalopram 40 mg by mouth daily
3. Tamsulosin 0.8 mg by mouth at bedtime
4. Finasteride 5 mg by mouth daily
5. Atorvastatin 40 mg by mouth at bedtime
6. Omeprazole 20 mg by mouth daily
7. Cyanocobalamin 1000 mcg by mouth daily
8. Cetirizine 10 mg by mouth daily
9. Fluticasone 50 mcg/spray; two sprays in each nostril daily

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10. Gabapentin 600 mg by mouth three times daily
11. Acetaminophen 500 mg - 1000 mg by mouth up to four times daily as needed for pain
12. Brimonidine tartate 0.15%; 1 drop in both eyes twice daily
13. Dorzolamide 2%/timolol 0.5%; 1 drop in both eyes twice daily
14. Latanoprost 0.005%; 1 drop in both eyes at bedtime
15. Trazodone 50 mg by mouth at bedtime
16. Calcium carbonate 500 mg by mouth three times daily

Review of Systems

Positive for fatigue, poor vision in his left eye, constipation, nocturia 3-4 times a night, frequent urinary incontinence, low back stiffness, difficulty concentrating, depression, dry skin, hoarseness, and nasal congestion.

Physical Exam

- Constitutional:** This is a thin, alert, older Asian male in no apparent distress, pleasant and cooperative, but with a notably flat affect.
- Vitals:** Supine – 135/76, 69; Sitting – 112/75, 76; Standing – 116/76, 75. BMI 19.
- Head:** Normocephalic / atraumatic.
- ENMT:** Wearing glasses. Acuity 20/30 R, 20/70 L.
- CV:** Regular rate and rhythm normal S1/S2 without murmurs, rubs, or gallops.
- Respiratory:** Clear to auscultation bilaterally.
- GI:** Normal bowel tones, soft, non-tender, non-distended.
- Musculoskeletal:** Strength: UE strength 5/5 B biceps, triceps, deltoids; LE strength 4+/5 bilateral hip flexors and abductors; 4+/5 bilateral knee flexors/extensors; 5/5 bilateral AF/AE; 5/5 bilateral DF and PF.
- No knee joint laxity. Foot exam shows no calluses, ulcerations, or deformities.
- Neurology:** Cognitive screen: recalled 3/3 items.
- Whisper test for hearing:** Intact.
- Tone/abnormal movements:** Tone is mildly increased in both legs; normal tone in both arms. Sensation is intact to light touch and pain throughout. Reflexes are normal and symmetric.
- Psych:** PHQ-2 = 4/6.

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Identified Fall Risk Factors

Mr. Ying's answers on the *Stay Independent* brochure and the results of the assessment tests indicate gait, strength, and balance impairments and a fear of falling.

- His orthostatic blood pressure results indicate postural hypotension. He is currently taking three medications that can directly affect and decrease blood pressure: valsartan, tamsulosin, and finasteride.
- He is currently taking four sedating medications: citalopram, gabapentin, cetirizine, and trazodone.
- Other fall risk factors are poor vision, nocturia >2 times a night, incontinence, and depression.

Fall Prevention Recommendations

- Attempt to stop, switch, or reduce medications affecting blood pressure or causing sedation.
- Consider non-pharmacologic options for symptom and condition management.
- Implement strategies to address urinary symptoms and depression.
- Recommend at least 800 IU vitamin D as a daily supplement for fall risk reduction.
- Counsel on self-management of orthostatic hypotension (drink 6-8 glasses of water a day, do ankle pumps and hand clenches for a minute before standing, do not walk if dizzy), and provide the patient brochure, *Postural Hypotension: What It Is and How to Manage It*.
- Discuss fall prevention, tailoring your suggestions based on the "Stages of Change" model. Emphasize that many falls can be prevented.
- Provide the CDC fall prevention brochures, *What You Can Do to Prevent Falls* and *Check for Safety*.
- Recommend using night lights or leaving the hall and/or bathroom lights on overnight to reduce the risk of falling when getting up to void.
- Recommend having grab bars installed inside and outside the tub, next to the toilet, and in the hallway that leads from his bedroom to the bathroom.
- Refer to an ophthalmologist for eye exam, glaucoma assessment, and updated prescription.
- Refer to a physical therapist for pain and gait assessment, to increase leg strength, improve balance, and for instruction on how to use a cane correctly.
- Consider referring to an occupational therapist to conduct a comprehensive assessment to identify appropriate home modifications and to provide education to reduce his chances of falling.