Falls and Fall Prevention in Older Adults
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Question: An 82-year-old female presented to the office with her daughter because she fell while trying to get to bathroom during the night. She did not have shoes on when she fell, and no light was on in the room. She had taken diphenhydramine the previous evening to help her sleep. Which of the following is the most appropriate intervention for preventing future falls?

A. Medication review, environmental changes, and education for the patient and family
B. Physical therapy referral for strength and balance
C. Evening fluid restriction and sleep hygiene interventions
D. Use of nightlight and slippers

Background
Falls are a major source of mortality and morbidity. 95% of hip fractures are caused by falls\(^1\). Falling once doubles the chance of falls in the future\(^2\). While 1:4 older adults fall in a year\(^3\), only half report it.

- Vision Problems
- Inappropriate Footwear
- Home Trip Hazards
- Vitamin D Deficiency
- Lower Body Weakness
- Cognitive Impairment
- Orthostatic Hypotension
- Chronic Conditions
- Difficulties with walking or balance
- Medications (sedatives, psychoactive, blood pressure)
Implications for Daily Practice

1. Screen all adults age >65 for falls at least annually
   Ask, “How many times have you fallen in the past year?”

2. Review the history surrounding the fall
   - What where they doing?
   - Where/When did it occur?
   - Environmental factors?
   - Prodromal symptoms?
   - Timing of medications or EtOH in relation to fall?
   - Chronic medical conditions contribute (Chronic pain, cognitive impairment, stroke, diabetes)?

3. Focused Physical Exam
   - Get up and Go Test
   - Vision Testing
   - Lower Extremity Strength
   - Sensory Assessment
   - Orthostatic Vital Signs
   - Postural stability
   - Gait

4. Diagnostic Evaluation
   - BMP- rule out diabetes (hyper or hypoglycemia) and dehydration
   - 25OH- Vitamin D levels- rule out deficiency
   - CBC- rule out anemia

Fall Prevention Strategies

<table>
<thead>
<tr>
<th>Gait, Strength or Balance Deficit</th>
<th>PT referral or Fall prevention program</th>
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<tbody>
<tr>
<td>Medications</td>
<td>Stop, switch, or reduce dose</td>
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<tr>
<td>Home Hazards</td>
<td>OT Referral for home evaluation</td>
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<tr>
<td>Orthostatic Hypotension</td>
<td>Adjust medication and BP goals, educate patient about safe standing and adequate fluid intake, compression stockings</td>
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<tr>
<td>Vision Impaired</td>
<td>Refer to Ophthalmology or Optometrist, cataract surgery needed?, multifocal lenses education/avoid for depth perception</td>
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<tr>
<td>Footwear/Feet</td>
<td>Educate on shoe fit, traction, insoles, etc., Refer to podiatry</td>
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<tr>
<td>Vitamin D Deficiency</td>
<td>Dietary or Vitamin D supplement</td>
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<tr>
<td>Comorbidities</td>
<td>Optimize treatment CHF, Diabetes, etc</td>
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The Bottom Line
Older adult falls are largely preventable. Health care providers play an important role in educating patients and families and providing appropriate interventions!

Answer: A
Assess all patients for fall risk. Falls are usually caused by a variety of reasons. A multicomponent approach is most likely to prevent future falls. Addressing environmental factors and exercise are appropriate but not sufficient. Fluid restriction should be avoided given risk of dehydration.

References

Link to provider check list here.