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Assessing falls in the elderly: should we use simple screening tests or a comprehensive fall risk evaluation?

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The risk for falling increases in the older population, resulting in an increase in serious outcomes and associated health care costs. Incorporating a falls assessment measure into the routine clinical evaluation is important for early identification of elders who are at greater risk for falls and provide information that can guide interventions. This article reviews a sample of available falls assessment approaches that are targeted to community dwelling older adults, ranging from simple questionnaires to more functional-based assessments. Newer high-tech and laboratory-based procedures still under development also are discussed. Finally, additional factors related to older individuals, specifically cognition- and emotion-based features that can impact falls risk are discussed as related to their importance for consideration in routine falls assessments. This paper summarizes information to help guide the clinician in choosing the most appropriate currently available tool. As many of these measures are similar in their sensitivity and specificity, decisions on which approach to take in many cases may have to be informed also by the clinic setting and existing resources available to the clinician
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1. In the assessment of falls in the elderly

A. the Timed Up and Go test is the only recommended test.
B. the Berg Balance Scale is not useful
C. the Functional Reach Test is highly predictive for future falling
D. technological equipments are always required
E. a graduated system of falls determination is recommended

2. Impairment in cognitive functioning:

A. is a risk factor for falling dependent of physical health status
B. increases the falls risk only in severe dementia
C. has no impact on the falls risk in healthy elderly
D. increases falls risk independent of physical health status
E. decreases motor activity and thus the falls risk

3. The Functional Reach Test:

A. is a weaker predictor of falls than history of falls
B. is a stronger predictor of falls than depression
C. is correlated neither with the Timed Up and Go test nor the Berg Balance test
D. can be used to predict the prospective falls risk in elderly
E. gives significantly higher scores in fallers than in non-fallers

Contribution of muscle weakness to postural instability in the elderly. A systematic review

ORR R.

BACKGROUND AND AIM: The aim of this review was to examine the contribution of muscle weakness to postural stability in healthy older adults and to determine the relationship between muscle weakness and balance impairment.DESIGN: A comprehensive search of electronic databases was performed from earliest record to February 2010. All study designs that contained a measure of muscle strength or muscle power and balance performance in older adults were examined. Population. Participants (?60 years) included healthy, community-dwelling cohorts, nursing home residents, frail, mobility- or functionally-limited adults but not persons with pathophysiological conditions or disease.METHODS: Interventions of progressive resistance or power training to increase muscle strength/power were examined but studies that included balance or multimodal training were excluded.RESULTS: A total of 74 papers were eligible for review; 45 with strength measures only; 5 with power measures only and 24 papers containing both strength and power outcomes. Overall, 54% (27/50) of studies reported significantly improved strength and balance measures and 73% (16/22) showed improved power and balance following resistance/power training intervention, whereas 84% and 86% of cross sectional studies observed significant associations between balance and strength/power outcomes respectively.CONCLUSION: The findings suggest that there is some evidence for the contribution of muscle strength and muscle power to balance performance in older adults. There is, however, weak evidence for the cause and effect relationship between muscle function and balance performance.
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4. Amongst the following factors contributing to falls, the most important is:

A. depression
B. sleep disturbance
C. balance impairment
D. postural hypotension
E. dizziness

5. Falls in older adults:

A. are a trivial cause of morbidity and mortality
B. have social, economical and psychological sequelae
C. account for less than 20% of all injury-related hospitalizations
D. have no connection to muscle weakness
E. decrease with age

6. The muscles mainly involved for postural stability are:

A. tibialis posterior, and hamstrings and quadriceps
B. tibialis anterior, extensor hallucis, and gastrocnemius
C. tibialis posterior, flexor hallucis, and hamstrings
D. tibialis anterior, gastrocnemius, hamstrings and quadriceps
E. tibialis anterior, gastrocnemius, and adductor magnus quadriceps

See answers on page 479.