IDENTIFYING FALL RISK FACTORS

Trauma NB

Did you know?

- Approximately 8 hospital admissions occur each day in New Brunswick due to fall-related injuries in older adults.
- Women are two times more likely to be admitted to hospital due to fall.
- The average length of stay in hospital due to a fall is 23 days.

As a primary healthcare provider, you are already aware that falls are a serious threat to the health and well-being of older adults.

The more risk factors a person has, the greater their chances of falling. Healthcare providers can help lower an older adult's risk of injury by addressing the fall risk factors that have been identified during the medical examination.

Risk factors known to be associated with falls include:

Biological

- Impaired mobility
- Balance deficit
- Gait deficit
- Muscle weakness
- Advanced age
- Chronic illness / disability:
  - Cognitive impairment
  - Stroke
  - Parkinson's disease
  - Diabetes
  - Arthritis
  - Heart disease
  - Incontinence
  - Foot disorders
- Visual impairment
- Acute illness

Behavioral

- History of falls
- Fear of falling
- Multiple medications
- Use of:
  - Anti psychotics
  - Sedative/hypnotics
  - Antidepressants
- Excessive alcohol
- Risk-taking behaviours
- Lack of exercise
- Inappropriate footwear/clothing
- Inappropriate assistive devices use
- Poor nutrition or hydration
- Lack of sleep

Social & Economic

- Low income
- Lower level of education
- Illiteracy / language barriers
- Poor living conditions
- Living alone
- Lack of support networks
- Lack of social interactions
- Lack of transportation

Environmental

- Poor building design and/or maintenance
- Inadequate building codes
- Stairs
- Home hazards
- Lack of:
  - Handrails
  - Curb ramps
  - Rest areas
  - Grab bars
- Poor lighting or sharp contrasts
- Slippery or uneven surfaces
- Obstacles and other tripping hazards

Table adapted from: Scott V., Dukeshire S., Gallagher E., Scanian A. (2001). A Best Practice Guide for Prevention of Falls Among Seniors Living in the Community.

We encourage you to adopt a coordinated approach to implementing best clinical practice guidelines for fall prevention. The **Algorithm for Fall Risk Screening, Assessment and Intervention** located on the other side of this page, outlines the recommended process to address fall risk factors of concern with an older patient. This tool will be updated on an ongoing basis as new research, best practice and resources are available.

Keep in mind that your clinical judgement should also take into account the older adults ability or readiness to address their risk factors, their preferences and the availability of family support during the development of an individualized care plan.

ALGORITHM FOR
FALL RISK SCREENING, ASSESSMENT & INTERVENTION

START HERE → Patient completes the ***Staying Independent Checklist***

Screening for fall risk

Calculate the patient's score on their ***Staying Independent Checklist***

AND / OR

Ask the patient the follow 3 key questions:

1. Have you fallen in past year?
   - If **YES** ask, **How many times? Were you injured?**
2. Do you feel unsteady when standing or walking?
3. Are you worried about falling?

The patient obtains a score of 4 or more on their ***Staying Independent Checklist***

— OR —

The patient answers **YES** to any of the key questions

Evaluating gait, strength and balance

- Timed Up and Go (TUG)
- 4-Stage Balance Test
- 30-Second Chair Stand Test

Older patient who demonstrates or reports difficulties with their gait, strength or balance.

Older patient who reports no falls in the past year obtains a score of 3 or less

— OR —

The patient answers NO to all key questions

Older patient without any gait, strength or balance problems who reports a single fall or less in the past year *

Individualized Interventions
LOW RISK

- Assess vitamin D intake:
  ~ Recommend calcium rich foods and daily vitamin D supplement +/- calcium if deficient
- Provide relevant fall prevention information and handouts
- Encourage the completion of the ***Home Safety Checklist***
- Reassess yearly **or** if the patient presents with any significant change in health status

AND

Recommend 150 minutes of moderate- to vigorous-intensity aerobic activity per week with muscle and bone strengthening activities at least twice a week to help with posture and balance

— OR —

Refer the patient to a community exercise-based fall prevention program

Conducting a multifactorial falls risk assessment

- Complete a **Focused History** including:
  - Reviewing the ***Staying Independent Checklist*** with the patient
  - Obtaining a history of falls and near-falls
  - Obtaining a history of relevant risk factors such as:
    - ~ Urinary incontinence
    - ~ Depression / Loneliness
  - Asking about potential use of alcohol and/or other substances
  - Assessing bone health / nutritional status
  - Completing a medication review according to Beers criteria
- Complete a **Physical Examination** including:
  - Cognitive screening
  - Visual acuity assessment
  - Cardiovascular examination
    - ~ Measure orthostatic hypotension
  - Lower extremity strength / joint function assessment
  - Pain assessment
  - Assessment for other neurological disorders
  - Feet and footwear check
- Complete a **Functional Assessment** including:
  - ADL / iADL assessment
  - Use of assistive devices
  - Fear of falling *(Review the Staying Confident Checklist with the patient)*
- Complete an **Environmental Assessment** including:
  - Asking about potential hazards found in and around the home

Individualized Interventions
HIGH RISK

- Develop an individualized care plan
- Provide relevant fall prevention information and handouts
- Recommend calcium rich foods and daily vitamin D supplement +/- calcium, if there is a deficiency
- Optimize the treatment of all identified comorbidities
- Minimize medications according to deprescribing guidelines, as appropriate
- Manage and monitor hypotention
- Optimize vision
- Manage foot and footwear problems
- Optimize home safety
  - ~ Recommend the completion of the ***Home Safety Checklist***
  - ~ Consider a referral to occupational therapy to help address concerns

AND

Refer to physical therapist to enhance functional mobility and improve gait, strength and balance

— OR —

Refer the patient to a community exercise-based fall prevention program

Individualized Interventions
FOLLOW UP

- Completed with patient within 30 to 90 days following their last visit
- Review the care plan
- Assess and encourage fall risk reduction behaviors
- Discuss ways to improve patient receptiveness to the care plan
- Address any barriers to adherence to the care plan
- Reassess yearly **or** if the patient presents with any significant change in health status

AND

Transition towards a community exercise-based fall prevention program when the patient is ready, willing and able to participate

* If the patient presents for medical attention because of a fall, reports recurrent (≥2) falls in the past year or reports difficulties with their gait or balance (with or without activity curtailment), complete a multifactorial fall risk assessment.

Based on the *Summary of the updated American Geriatrics Society/British Geriatrics Society clinical practice guideline for prevention of falls in older persons. J Am Geriatr Soc. 2011; 59(1): 148-157* and adapted from the *2017 STEADI (Stopping Elderly Accidents, Deaths & Injuries) Algorithm for Fall Risk Screening, Assessment and Intervention* by the National Centre for Injury Prevention and Control of the Centres for Disease Control and Prevention (CDC).

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