Community-Based Falls Prevention by an Interprofessional Team

Centre for Family Medicine FHT, Kitchener[1, 2]

KEY POINTS

- Falls are a common and serious risk with an aging population.
- Screening for falls should be done yearly for all patients 65 years and older or in those with a predisposing medical condition.
- Collaboration and communication with the patient's family physician offers an opportunity for improved interprofessional dialogue and enhanced patient care related to falls risk.

Craig Bauman, DC
James D. Milligan, BScPT, MD, CCFP
Tejal Patel, BScPharm, PharmD
Sarah Pritchard, MScOT, OT Reg. (Ont.)
Tammy Labreche, BSc, OD
Sharon Dillon-Martin, MSW
Alexandra Ilich, HBSc, BScPT, MCPA
John J. Riva, DC, MSc

Lessons from a Mobility Clinic

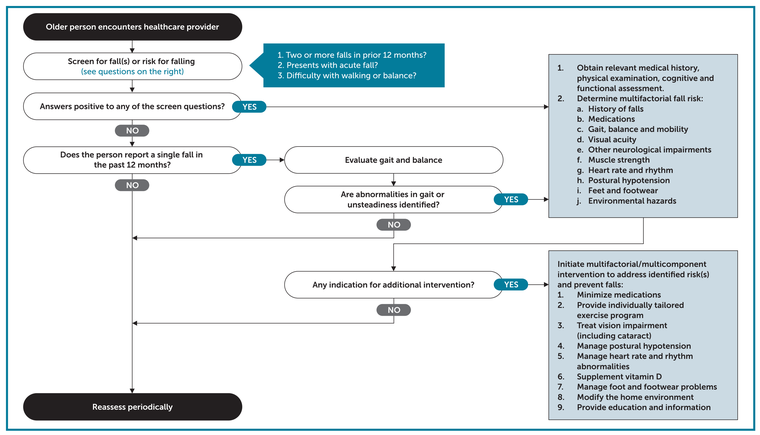
As Canada's population ages, there is a growing concern about falls, especially for those already weakened by one of the chronic diseases prevalent in seniors. The effects of a fall can be devastating including fracture, traumatic brain injury, and spinal cord injury.

This poster speaks to what robust risk assessment looks like at the Centre for Family Medicine (CFFM) Family Health Team Mobility Clinic in Kitchener, and how different members of interprofessional teams collaboratively work toward helping patients mitigate falls risks, and rehabilitate associated deficiencies to prevent falls reoccurrence.

ASSESSING FALLS RISK

- According to the guidelines on falls prevention published by the American Geriatrics Society (AGS) and British Geriatrics Society (BGS), all patients over age 65, or those with a predisposing condition, should be asked annually if they have fallen in the last year.
- If two or more falls have occurred, the patient should be referred to their primary care physician for a multifactorial falls risk assessment. If the patient has had one fall in the last year, they should be evaluated for balance and gait, and referred for a multifactorial falls risk assessment if any concerns are discovered.

Figure 1: Prevention of Falls in Older Persons Living in the Community (with permission from the American Geriatrics Society.)[3]



PATIENT HISTORY, MEDICAL EVALUATION, AND PHYSICAL EXAMINATION

- A proper history is essential for assessing falls risk.
- A full medical history should be taken to determine the presence of any predisposing conditions.
- A fear of falling has been shown to put a patient at even greater risk of falling.
- The Activities-Specific Balance and Confidence (ABC) Scale questionnaire can assess this level of fear.
- For those who have fallen there is the risk of developing post-fall anxiety syndrome.
- A full MSK examination of the upper and lower extremities and cervical and lumbar spine should occur, including an orthopaedic and neurological assessment.

RED FLAGS

- Was there loss of consciousness at the time of the fall?
- Any shortness of breath at the time of the fall?
- Any chest pain?
- Any palpitations?
- Any dizziness (light headed or room spinning)?
- Did they need an ambulance or go to the hospital?

YELLOW FLAGS

- How many falls has the patient had?
- Over what time frame?
- What were the circumstances?
- Any incontinence of the bowel or bladder?
- Any numbness or tingling in the feet?
- Are they able to get up from the fall on their own?

ADDITIONAL QUESTIONS

- Was the fall witnessed?
- The specifics regarding the environment/location of the fall?
- Activity at the time of the fall?
- The time of day?
- What type of footwear were they wearing?

TESTING FOR FALLS RISK

Here is a list of popular, effective tools used to measure falls risk in older people. It is important to remember to be prepared to catch the subject during any balance testing.

Timed "Up and Go" Test	www.rehabmeasures.org
NeuroLogic Exam Videos	www.library.med.utah.edu
Otago Exercise Programme	www.acc.co.nz/
Berg Balance Scale	www.fallpreventiontaskforce.org
Tinetti Balance Assessment Tool	www.bhps.org.uk/falls/documents/TinettiBalanceAssessment.pdf
Hand Grip Testing	www.ncbi.nlm.nih.gov
Activities-Specific Balance and Confidence Scale	www.healthcare.uiowa.edu
The Beers Criteria for Potentially Inappropriate Medication use in Older Adults	www.americangeriatrics.org
Canadian Chiropractic Association - Best Foot Forward	www.chiropractic.ca/resources/falls-prevention/prevent-falls-in-the-home/
Home Falls and Accidents Screening Tool	www.health.vic.gov.au

INTERPROFESSIONAL MANAGEMENT AT CFFM

The Centre for Family Medicine Family Health Team has developed an interprofessional Mobility Clinic, which provides primary care to patients with physical disabilities. This team includes family physicians, an occupational therapist (OT), nurses, a social worker, a clinical pharmacist, an optometrist, a physiotherapist (PT), and a chiropractor. Some of these roles, and how they contribute to collaborative falls prevention efforts, are described below.

PHYSICIANS

- Medical assessment includes investigating cardiac and lung function. Any special testing or blood work can then be ordered.
- Screening for the presence of orthostatic hypotension is also essential.
- A drop in blood pressure with position change could lead to a fall. Record blood pressure and pulse rate supine and then standing at 1 and 3 minutes.
- A drop of systolic blood pressure of 20 mm or more and/or a drop of diastolic blood pressure of 10 mm or more are of significance.
- Also of concern is an increased pulse rate of 20 BPM or greater or a decrease of 10 BPM or greater.

PHARMACISTS

- A medication review by a pharmacist is also helpful to determine if any pharmaceuticals put the patient at a higher risk of falls. Patients on four or more medications are at a higher risk of falls.
- The Beers Criteria for Potentially Inappropriate Medication Use in Older Adults includes a list of medications that increase risk of falls.

OPTOMETRIST

- Make sure the patient has had a consult with their optometrist and their prescription is up-to-date. Cataracts put patients at a higher risk of falls.

CHIROPODISTS

- A foot professional like a chiropodist can inspect the patient's feet and shoes for any abnormalities.
- Proper footwear in good condition, with a non-slip sole, and low heel is recommended.

OCCUPATIONAL THERAPISTS, PHYSIOTHERAPISTS AND CHIROPRACTORS

- A home assessment to ensure a safe environment is recommended. Ideally this would be performed by an OT, though physiotherapists and chiropractors can also fill this role.
- Chiropractors and physiotherapists are both well positioned to perform evaluations—including comprehensive MSK assessments—featuring the tests described already, and in turn prescribe and monitor individualized exercise programs for patients based on their particular deficits.
- For example, the Otago Exercise Programme can be used to help strength and balance. Use one level more difficult than the patient was able to successfully complete when using balance exercises.

The CFFM's Mobility Clinic is Funded by the Ontario Neurotrauma Foundation and collaborates with McMaster University Health Sciences.

CRAIG BAUMAN, D.C.
519 578-2100 ext 255
craig.bauman@family-medicine.ca
The Centre for Family Medicine
25 Joseph Street
Kitchener, ON, N2G 4X6

NOTES:
1. Bauman, C., Milligan, J., Patel, T., Pritchard, S., Labreche, T., Dillon-Martin, S., Ilich, A. and Riva, J. (2014). Community-based falls prevention: Lessons from an interprofessional mobility clinic. Journal of the Canadian Chiropractic Association, 58(3), 300-311.
2. Bauman, C. and Milligan, J. (2015). Community-Based Falls Prevention. Canadian Chiropractic Association magazine.
3. American Geriatrics Society/British Geriatrics Society (AGS/BGS). (2011). Summary of the Updated AGS/BGS clinical practice guideline for prevention of falls in older persons. Journal of the American Geriatric Society. 59(1), 148-157. Retrievable from: www.ncbi.nlm.nih.gov/pubmed/21226685

ACKNOWLEDGEMENTS:
Centers for Disease Control and Prevention (CDC). (2015). Older Adult Falls: Get the Facts. Retrievable from: http://www.cdc.gov/homeandrecreationalsafety/falls/adultfalls.html

Lam, R. (2007). Choosing the correct walking aid for patients. Canadian Family Physician, 53(12), 2115-2116. Retrievable from: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2231545/