# Explaining Epidemiological Factors of Falls to Older Adults









# Epidemiological Factors of Falls

Falls are a serious, epidemic problem. In Canada, it is estimated that more than 1.8 million older adults fall each year.<sup>1</sup> About half of older adults who fall cannot get back up without help.<sup>2</sup> Moreover, the longer the lie time after a fall, the greater the incidence of serious preventable consequences that can result in the need for hospitalization, loss of independent living, and even death.

# The mortality rate from falls has been determined to be:3

67% when lie times are more than 72 hours

AS OPPOSED TO

when lie times are less than one hour

Of the patients found alive,

62% were hospitalized

and approximately half required intensive care

Of the survivors, over 60% were unable to return to independent living

# Not all falls can be prevented.

One out of three people aged 65 and older will fall this year.<sup>4</sup> This educational tool tells the story of how Lifeline with AutoAlert can make a meaningful difference before a fall, after a fall, and even in cases where falls are a more frequent occurrence.







A senior falls in Canada every 2 seconds<sup>5</sup>

50%

of older adults who fall, fall two or more times<sup>6</sup>

Among older Canadians,

**85%** of all injury hospitalizations are for falls<sup>7</sup>

The financial burden of falls on Canada's healthcare system is

\$2 billion<sup>8</sup>

# How can we help older adults understand their falls risk?

Helping your patients acknowledge their level of risk can be difficult. Older adults want to stay in control. All too often, they will accept their need for added support only after a serious fall.

This educational piece is a tool you can use with your patients to demonstrate how health conditions they are currently managing can increase falls risk significantly, and how securing Lifeline with AutoAlert<sup>9</sup> before a fall can make a meaningful difference to lesser the dire consequences.



**Before** a Fall



After a Fall



Frequent Falls

## How Common Chronic Conditions Increase Falls Risk in Older Adult Patients

Four in five older adults have at least one chronic health problem, and one in three have activity limitation associated with those conditions.<sup>10</sup> Research indicates that many of these chronic conditions have a direct correlation to increased falls risk.

#### FALLS RISK FACTORS FOR OLDER ADULTS

Chronic disease and other factors affecting overall health and well-being for adults 65 years and older:



#### **ARTHRITIS**

Reduced muscular strength and standing balance increases the risk of falling.



#### **OBESITY**

Lack of exercise can lead to weak legs, which increases the chance of falling.



#### **FUNCTIONAL LIMITATIONS**

Impairs mobility and is a measurable predictor for recurrent falls.



#### MULTIPLE MEDICATIONS

Numerous factors are associated with an increased risk of falling and fall-related injuries, but none is as potentially preventable or reversible as medication use.



#### **FEAR OF FALLING**

Fear of falling often leads to a reduced activity level which in turn increases the risk of falling.



#### **HYPERTENSION**

Episodes of light-headedness and dizziness interfere with balance, coordination, and vision.



#### DIABETIC

Common complications, such as peripheral neuropathy, retinopathy and nephropathy, work independently and interdependently to increase falls risk.



## Before a Fall

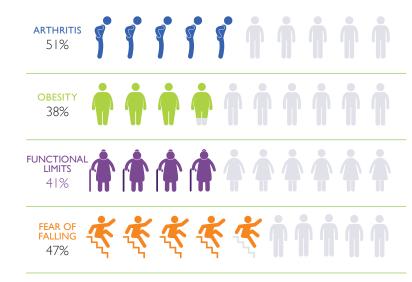
Although your patient has not yet experienced a fall, they may be managing chronic diseases, taking multiple medications or having problems with sensations. All of these factors can contribute to a fall.

Recommending Lifeline with AutoAlert as a means of getting help quickly in the event of a fall can provide added peace of mind and confidence at home.

## CHRONIC HEALTH CONDITIONS CAN INCREASE FALLS RISK SIGNIFICANTLY

4 in 5 older adults have at least 1 chronic health problem.

I in 3 have activity limitation associated with those conditions.















## After a Fall

A previous fall is one of the strongest predictors for recurring falls. Delayed intervention or prolonged lie times after a fall may result in secondary, serious complications that very likely require hospitalization and which may be avoided with quick access to help. Lifeline with AutoAlert is a service designed to speed intervention and mitigate complications resulting from a fall.

## ONE HALF OF OLDER ADULTS CANNOT GET UP FROM A FALL WITHOUT HELP

The prevalence of falls accounts for over 60% of all nonfatal injury emergency department visits in the 65 year old and older population.<sup>7</sup>

Adults age 65 years + older are more than 3 times more likely to be hospitalized due to a fall-related injury than younger persons

Post-discharge: the rate of falls is 4 times higher in the first 2 weeks after hospitalization

40% of nursing home admissions are falls-related

Getting help **QUICKLY** helps prevent further injury

Being down for more than 2 hours can increase the risk of medical problems



# Frequent Falls

Integrating Lifeline with AutoAlert into your falls safety program provides a plan for how your patients can reduce potential harm resulting from a fall. Recommend that your patients subscribe to Lifeline with AutoAlert as a means of getting help quickly after a fall or medical event.

#### COMPLICATIONS AFTER A FALL

Being down for more than 2 hours can increase the risk of medical problems that may be prevented by getting help quickly.

PRESSURE ULCERS	Over half of patients require subsequent care in long term care facilities. Particularly dangerous for diabetics who have difficulty healing soft tissue injuries.
RHABDOMYOLYSIS	Common complication from prolonged lie times after a fall and can lead to a need for dialysis.
DEHYDRATION	Can lead to confusion, postural hypotension and delirium.
ASPIRATION PNEUMONIA	Can lead to acute respiratory distress syndrome and death.

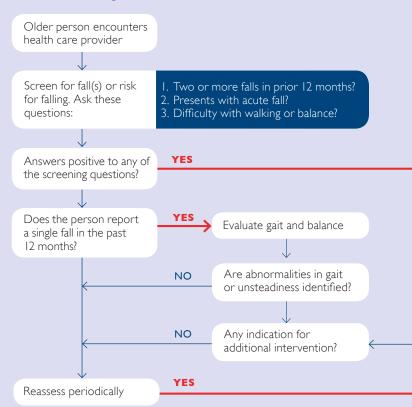
# Screening for Falls Risk

Screening for falls and risk for falling is aimed at preventing or reducing fall risk. All older persons who are under the care of a health professional (or their caregivers) should be asked at least once a year about falls, frequency of falling, and difficulties in gait or balance.

Any positive answer to the screening questions at righ puts the person screened in a high-risk group that warrants further evaluation.

#### Reducing Falls Risk

Although falls are an epidemic, there are ways to reduce falls risk. The diagram below details a screening process and proven intervention strategies that reduce falls risk in older adults.



- Obtain relevant medical history, physical examination, cognitive and functional assessment.
- 2. Determine multifactorial fall risk:12
  - a. Previous fall
  - b. Balance impairment
  - c. Decreased muscle strength (upper or lower extremity)
  - d. Visual impairment
  - e. Medications (>4 or psychoactive medication use)
  - f. Gait and impairment or walking difficulty
  - g. Depression
  - h. Functional limitations, ADL disabilities
  - i. Age >80 years and/or Female
  - j. Low body mass index



#### Impairments + Conditions Predispositioning Falls

Women are more likely to experience fractures. Men are more likely to experience traumatic brain injuries

Initiate multifactorial/multicomponent intervention to address identified risk(s) and prevent falls:

- I. Minimize medications
- 2. Provide individually tailored exercise program
- 3. Treat vision impairment (including cataract)
- 4. Manage postural hypotension
- 5. Manage heart rate and rhythm abnormalities
- 6. Supplement vitamin D
- 7. Manage foot and footwear problems
- 8. Modify the home environment
- 9. Provide education and information

### Effective Multifactorial Interventions

The multifactorial nature of fall prevention means that care must be coordinated among physicians, nurses, physical therapists and occupational therapists. Regardless of location or disciplines involved, effective fall prevention requires assessing potential risk factors, managing the risk factors identified, and ensuring that the interventions are completed.

We need to help older adults who are at risk for falls develop plans that address the following two important questions:

If you were to fall tonight, would you be able to get up safely?

and couldn't get up, how would you get help?

Pages 4 & 5 Infographic source: Current Rate of Chronic Disease for 65+ Population, 2012: Key Indicators of Well-Being, Federal Interagency Forum on Aging-Related Statistics.

I Based on Statistics Canada 2013 population data and Center for Disease Control Fact Sheet, Falls among older adults: an overview. www.cdc.gov/HomeandRecreationSaftey/Falls/adultfalls.html

<sup>2</sup> Falls, Fractures, and Injury, Merck Manual of Geriatrics, Section 2, Chapter 20, www.merck.com/mkgr/mmg/sec2/ch20/ch20a.jsp. 3 Persons Found in Their Homes Helpless or Dead. NEIM. 334:1710-1716 (June 27), 1996.

 $<sup>4\,</sup>Center for\,Disease\,Control\,Fact\,Sheet,\,Falls\,among\,older\,adults:\,an\,overview.\,www.cdc.gov/HomeandRecreationalSafety/Falls/\,adultfalls.html.$ 

<sup>5</sup> Based on Statistics Canada and CDC/Public Health Agency of Canada data.

<sup>6</sup> Tinetti ME, Speechley M. Prevention of falls among the elderly. The New England Journal of Medicine 1989;320:1055-9.

<sup>7</sup> Public Health Agency of Canada, Technical report: Deaths due to falls among Canadians age 65 and over. An analysis of data from the Canadian Vital Statistics as presented in: Report on Seniors' falls in Canada, p2.

<sup>8</sup> Public Health Agency of Canada, Seniors' Falls in Canada, 2014.

<sup>9</sup> AutoAlert does not detect 100% of falls. If able, users always push their button when they need help.

<sup>10</sup> Older Americans 2012: Key Indicators of Well-Being, Federal Interagency Forum on Aging-Related Statistics.

<sup>11</sup> Public Health & Aging: "Nonfatal injury among older adults treated in hospital emergency departments." http://www.cdc.gov/mmwr/preview/mmwr/html/mm5242a4.htm.

<sup>12</sup> Kumar, C, Tinetti, M E. "The Patient Who Falls: It's Always a Trade Off." 2010;p259.

# Ask your patients: If you fall tonight, how will you get up?

#### I. PREPARE Getting up quickly or Push your upper Keep the other body up. Lift your leg bent with the wrong way could make an injury worse. head and pause for the knee on the If you are hurt, call for a few moments to floor. help using a medical steady yourself. alert service or a telephone. Look around for From this kneeling Slowly get up on a sturdy piece of your hands and position, slowly rise knees and crawl furniture, or the and turn your body bottom of a staircase. to a sturdy chair. to sit in the chair. Don't try and stand up on your own. Place your hands Roll over onto your Sit for a few side by turning your on the seat of the minutes before head in the direction chair and slide one you try to do you are trying to roll, foot forward so it anything else. then move your shoulis flat on the floor. ders, arm, hips, and finally your leg over.

# Then ask: If you can't get up, how will you get help?

Philips Lifeline can help you get assistance in case of a fall, medical emergency or other urgent situation in your home.



#### Summon Help. Simply press your Lifeline Help Button.

If you have Lifeline with AutoAlert, you'll have an added layer of protection, as your AutoAlert pendant can *automatically* place a call for help if a fall is detected and you are unable to press your button.\*



#### Hear a Reassuring Voice.

A trained Lifeline Response Associate speaks with you and assesses your situation while accessing your medical profile.



#### Know Help is On The Way.

The associate will quickly contact a neighbour, loved one or emergency services based on your specific needs, and follow up to make sure help has arrived.







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