<table>
<thead>
<tr>
<th>Name</th>
<th>College Registration Number</th>
<th>Learning Record #</th>
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<tbody>
<tr>
<td>Example</td>
<td>6</td>
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## PLAN

1. **What is your learning goal(s) (Required)**
   
   I would like to learn the following:
   - Fall Risk Identification
   - Assessment tools/evaluation of falls
   - Exercise/fall prevention
   - Drugs & conditions that increase risk of falls
   - Fall-prevention technology and products

2. **Identify your primary motivation in choosing this learning goal(s). (Required)**
   (check the main factor that helped you identify this as a learning goal)

   - Self-assessment using the questionnaire from the college
   - Feedback from the College on the Knowledge Assessment exam
   - Changes in the regulatory or policy-related environment
   - Specific patient cases or practice-related problems
   - Participation in writing, research, teaching
   - Other (please specify):

## ACT

3. **What were your learning activities? (Required)**
   (check all that apply and indicate activity details and date)

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<tr>
<th># of Hours</th>
<th>Accredited</th>
<th>Non-Accredited</th>
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   - **a. Live program** (lecture, seminar, workshop, audio/video conferencing, etc.)

   Activity details – Include topic, speaker’s name & date

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   - **b. Self-study program** (correspondence programs, audio/video programs, study groups, journal club, online programs, multimedia rounds, etc.)

   Activity details – Need to give citation – title, author, date

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   - **c. Reading materials** (health-related journals, textbooks, manuals, newsletters, internet sites)

   Activity details – Need to give citation – title, author, date

   - Mobility Clinic - Fraser Health [attached]

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<tr>
<th>Date</th>
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<tr>
<td>August 20-23, 2010</td>
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   - **d. Workplace learning** (discussion with colleagues or experts, "hands-on" learning, etc.)

   Activity details – Include topic, exercise, etc.

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Commented [3]: Learning activity detail(s) complete and clear
Reflect

4. [ ] did I learn in relation to my goal(s) and/or [ ] will/have I used this learning? (Required)

Risks:
1. Age > 60 increased risk; postoperative, Hx of falls
2. Medications – Diuretics, antihypertensives, narcotics, hypnotics. 3. Physical condition (unsteady gait), seizures, impairment of vision, hearing, incontinence
4. Mental status (confusion/disorientation), dementia

Prevention: ambulatory device (cane, wheelchair, etc), exercise
Intervention: environment (uncluttered living area), individualized intervention, such as treating factors (incontinence, immobility, dementia, medications that increase risk)

Multifactorial interventions can be applied to my practice including education, self management (exercise, getting up from a fall). Home modifications. Advice about medication use; medical assessment and management of cardiovascular disorders (such as postural hypotension & carotid sinus syndrome). Reduction in the number & dosages of prescribed medications that are associated with increased risk of falls. Provide access to sources for those who require special devices and services for fall prevention

5. [ ] future learning goal did this activity trigger for you? (optional)

I would like to compile a list of sources that provide or sell special devices, products & services for fall prevention in the Surrey area and like to participate in any program or MCE that are related to "home safety"

6. My personal notes on this activity (optional)

Please contact me at work if anyone who is interested in participating with a "fall prevention clinic" and I will refer him/her to the coordinator for the "clinic" in the area . Also I have compiled a list of URL addresses for Falls Assessment Tools

7. Would you be willing to have your Learning Record used as an example? (please note: your name will not be used)

☒ Yes ☐ No
Falls are not just the result of getting older. You can take control over your risk factors and prevent harmful falls.

**EDUCATION SESSION**

Learn about various factors of falls and injuries and how to prevent them.

**Wednesday, August 20**th
11 am

**FALLS PREVENTION CLINIC**

Individuals at risk for falls will have one-on-one appointments with health professionals for an individualized assessment.

**Wednesday, September 3rd**

*Newton Seniors Centre*
13775 70**th** Ave
Surrey, BC

**SPEAK TO YOUR NURSE IF YOU ARE INTERESTED**
## Fall Risk Factor Category

Scoring not completed for the following reason(s) (check any that apply). Enter risk category (i.e. Low/High) based on box selected:

- Complete paralysis, or completely immobilized. Implement basic safety (low fall risk) interventions.
- Patient has a history of more than one fall within 6 months before admission. Implement high fall risk interventions throughout hospitalization.
- Patient has experienced a fall during this hospitalization. Implement high fall risk interventions throughout hospitalization.

## COMPLETE THE FOLLOWING AND CALCULATE FALL RISK SCORE. IF NO BOX IS CHECKED, SCORE FOR CATEGORY POINTS IS 0.

### AGE (SINGLE-SELECT)

- 60–69 years (1 point)
- 70–79 years (2 points)
- ≥ 80 years (3 points)

### FALL HISTORY (SINGLE-SELECT)

- One fall within 6 months before admission (5 points)

### ELIMINATION, BOWEL AND URINE (SINGLE-SELECT)

- Incontinence (2 points)
- Urgency or frequency (2 points)
- Urgency/frequency and incontinence (4 points)

### MEDICATIONS: INCLUDES PCA/OPIATES, ANTI-CONVULSANTS, ANTI-HYPERTENSIVES, DIURETICS, HYPNOTICS, LAXATIVES, SEDATIVES, AND PSYCHOTROPICS (SINGLE-SELECT)

- On 1 high fall risk drug (3 points)
- On 2 or more high fall risk drugs (5 points)
- Sedated procedure within past 24 hours (7 points)

### PATIENT CARE EQUIPMENT: ANY EQUIPMENT THAT TETHERS PATIENT, E.G., IV INFUSION, CHEST TUBE, INDWELLING CATHETERS, SCDs, ETC) (SINGLE-SELECT)

- One present (1 point)
- Two present (2 points)
- 3 or more present (3 points)

### MOBILITY (MULTI-SELECT, CHOOSE ALL THAT APPLY AND ADD POINTS TOGETHER)

- Requires assistance or supervision for mobility, transfer, or ambulation (2 points)
- Unsteady gait (2 points)
- Visual or auditory impairment affecting mobility (2 points)

### COGNITION (MULTI-SELECT, CHOOSE ALL THAT APPLY AND ADD POINTS TOGETHER)

- Altered awareness of immediate physical environment (1 point)
- Impulsive (2 points)
- Lack of understanding of one’s physical and cognitive limitations (4 points)

*Moderate risk = 6-13 Total Points, High risk > 13 Total Points Total Points*
Key Issues to Consider About Fall Management

What fall management options are currently available?

Technologies aimed at reducing the risk of a fall:

- **Anti-slip footwear** are socks and slippers with anti-slip material incorporated on the bottom.
- **Anti-slip matting and materials** provide a slip resistant surface to stand on in slippery areas such as tubs and bathroom floors.
- **Grab bars** provide stability and support in bathrooms and other areas.
- **Wheelchair anti-rollback devices** prevent a wheelchair from rolling away when residents stand or lower themselves into a chair.
- **Chair, bed, and toilet alarms** signal a caregiver when a resident who is at risk for falling attempts to leave a bed, chair, wheelchair, or toilet unattended.
- **Rehabilitation equipment and programs** geared toward the restoration and maintenance of strength, endurance, range of motion, bone density, balance, and gait. Some examples include unweighting systems that enable residents to perform gait training in a supported reduced weight environment, systems that can test balance, and treadmills.

Technologies aimed at reducing the risk of injury when falls occur:

- **Hip protectors** are designed to protect the hip from injury in the event of a fall.
- **Bedside cushions** may help reduce the impact of a fall if a resident rolls out of bed.

Technologies that notify caregivers when a resident has fallen:

- **Fall detection devices** use technologies that sense a change in body position, body altitude, and the force of impact to determine when a fall has occurred.

How do we begin discussions in our facility about fall management technologies?

Consider fully defining the scope of the issue before implementing the technological solutions. For instance:

- Consider how many residents could benefit from fall technologies. The number will vary with:
  - the cognitive and ambulatory status of residents; and
  - the size of and layout of your facility.
- Consider which fall management technologies fit with your facility's needs and philosophies.
  - Consider how the product will affect or complement a fall prevention program that you may already have in place or plan to implement.
  - Consider the implications between detecting and preventing a fall. Although it is important to know when a resident has fallen to provide assistance as soon as
An important part of the balance system you use every day is your ability to know where certain body parts are in space. Your “internal sense of spatial orientation” is helped by this exercise.

1. Get on all fours with knees and hands 12 inches apart.
2. Keep your back flat and your head “straight.”
3. Lift each arm forward by itself and hold for 5 to 10 seconds.
4. Repeat with each leg, straightening it behind you but keeping it close to the ground.
5. Lift the opposite arm and leg (right arm, left leg) at the same time and hold for 10 seconds. Then repeat on the opposite side.

Posture and strength are important components of your body’s system of maintaining balance. These exercises encourage good posture while enhancing lower extremity strength as well.

1. Stand with your arms resting comfortably with a countertop or sturdy table in front of you and a wall behind you.
2. Stand with your feet comfortably apart. Look straight ahead, keep your back straight and your knees slightly bent.
3. Slowly rise up on your toes.
4. Lower yourself down slowly and repeat 5 times.
5. Keep your posture the same, but this time raise the front part of your foot, lower it slowly, and repeat 5 times.
6. Finally, keep standing as you have been. Lift one leg several inches off the floor and hold for 5 seconds, lower it slowly, and repeat 5 times. Repeat on the opposite foot.

For more information on The AGS Foundation for Health in Aging call 1-800-563-4916 or visit www.healthaging.org.

This handout is excerpted from the Falls in Older Adults Primary Care Practice Toolkit developed by the Practicing Physician Education Project which was supported by a grant from the John A. Hartford Foundation through the American Geriatrics Society.
Relationship Between Antidepressants and the Risk of Falls

Barbara Liu, MD, FRCPC, Sunnybrook & Women's College Health Sciences Centre and the Kainin-Lunenfeld Applied Research Unit, Baycrest Centre, Toronto, ON.

Falls are a common problem among older patients. Medications in general, and psychotropic drugs in particular, have been shown to increase the risk of falls. The possible mechanisms whereby psychotropic drugs increase this risk include sedation, orthostatic hypotension, arrhythmias, confusion due to anticholinergic effects, and dopaminergic effects on balance and motor control. Several epidemiological studies have identified antidepressant use—both tricyclic and selective serotonin re-uptake inhibitors—as a risk factor for falls. When treating a patient with an antidepressant, efforts should be made to reduce other modifiable risk factors for falls by optimizing intrinsic and extrinsic risk factors for falls.

Key words: falls, antidepressant, hip fracture, tricyclic antidepressant, selective serotonin re-uptake inhibitor.

Introduction

Falls are a prevalent and serious problem among older people. One in three persons over 65 years will fall at least once each year.1 Although only 10% of all falls result in serious physical injury, the psychological effects can lead to impaired mobility, loss of function and an overall decrease in a person's quality of life.2 Falls are a strong predictor of loss of independence and placement into a long-term care facility.3 Hip fractures are one of the most serious complications of falls in the elderly, and are a major source of both morbidity and mortality. The annual incidence of hip fracture is estimated at 5.5–12.9 per 1,000 person-years, which increases exponentially with age over 65 years.4

Approximately 3% of people older than 65 years suffer from major depression. However, as many as 15% of older people report the presence of depressive signs or symptoms.5 The sequelae of inadequately treated depression include patient suffering, increased mortality from comorbid medical illness, suicide, caregiver burden and increased health care utilization. Despite these consequences, depression in older patients is often misdiagnosed or inappropriately treated.6

In Ontario, the proportion of antidepressant prescriptions accounted for by selective serotonin re-uptake inhibitors (SSRIs) increased from 9.6% in 1993 to 45.1% in 1997.7 Medications in general, and psychotropic drugs in particular, have been shown to increase the risk of falls.1,6–17 The possible mechanisms whereby psychotropic drugs increase this risk include sedation, orthostatic hypotension, arrhythmias, confusion due to anticholinergic effects and dopaminergic effects on balance and motor control (Table 1). Several epidemiological studies have identified antidepressant use as a risk factor for falls among elderly patients.1,6–9,11,12,18 In prospective studies involving community-dwelling elderly and long-term care residents, antidepressant use was associated with a significant increase in risk of falls or fractures, with odds ratios ranging from 5.67–28.3.1,9 Case-control studies also have identified significant odds ratios ranging from 1.6–2.9. In most of these studies, the antidepressants examined were tricyclic antidepressants (TCAs).

Tricyclic Antidepressants and Risk of Fracture

Two landmark studies that identified an association between risk of hip fracture and psychotropic drug use were published by Ray, et al.11,12 Using the Saskatchewan database and a case-control study design, they examined the medication use of 4,501 patients with hip fracture and 24,041 controls matched for age and sex.12 Current TCA use was associated with a 60% increase in the risk of hip fracture (relative risk [RR] 1.6, confidence interval [CI] 1.3–1.9), compared to nonpsychotropic drug users. The risk was higher in users who had begun therapy within 90 days (RR 2.7, CI 1.6–4.4). Among the TCAs examined, no differences in risk of fracture were found between specific drugs. However, all of the TCAs examined were tertiary amines (e.g., amitriptyline and imipramine), which are no longer considered appropriate for the treatment of depression in older patients.19,20

Selective Serotonin Re-uptake Inhibitors and Risk of Falls

The SSRIs, which have been available in Canada since 1987, are considered first-line therapy for depression in the geriatric patient.20 As a class of antidepressants, they have been reported to have fewer cardiovascular and anticholinergic side effects than TCAs.21,22 Unfortunately, however, the potential advantages of SSRIs do not include a reduction in the risk of falls. A case-control study using Ontario administrative data identified an association between SSRI use among seniors and hip fractures.13 The adjusted odds ratio for hip fracture associated with SSRI use (adjusted odds ratio [AOR] 2.4, 95% CI 2.0–2.7) was similar to the risk associated with the use of secondary-amine TCAs (AOR 2.2, 95% CI 1.8–2.8). These findings were confirmed in a cohort study of nursing home residents, which found that the risk of falls associated with TCA use (RR 2.0, 95% CI 1.8–2.2) and SSRI use (RR 1.8, 95% CI 1.6–2.0) were both significantly increased.23

Methodological Limitations and Future Directions

Observational studies cannot establish causality. Since allocation to the drugs of...