Stay On Your Feet WA®

Falls Prevention Regional Training Session

Emily Anderson  Coordinator, Falls Prevention Programs
What is Stay On Your Feet WA®?

- Funded by Department of Health WA
- Targets people 60+ and Aboriginal and Torres Strait Islander 45+
- Aims to
  - improve the knowledge, attitudes and beliefs among seniors that falls are preventable
  - reduce the incidence of falls
  - reduce the severity of fall-related injuries
Nine Steps To Stay On Your Feet®

Step 1: Be Active
Step 2: Manage Your Medicines
Step 3: Manage Your Health
Step 4: Improve Your Balance
Step 5: Walk Tall
Step 6: Foot Care and Safe Footwear
Step 7: Regularly Check Your Eyesight
Step 8: Eat Well for Life
Step 9: Identify, Remove and Report Hazards
Today’s session will cover

**Step 2:** Manage Your Medicines

**Step 3:** Manage Your Health

**Step 9:** Identify, Remove and Report Hazards
Case Study

• Bill is a 75 year old man who has diabetes and has had 3 falls in the last 12 months all of which have occurred in the middle of the night.

• His latest fall caused him to be admitted to hospital for serious bruising and has recently been sent back home. The hospital has prescribed pills that look different to what Bill was taking previously.
Managing Medicines to Reduce Falls Risk

Helen Brown
BPharm MPS GradDipMedManPharm AACPA
Risk Factors For Falls

- Age >65 years
- Unfavourable environment
- Dizziness
- Cognitive impairment or depression
- Impaired vision and hearing
- Impaired mobility
- Muscle weakness
- Incontinence/Urinary Frequency
- Polypharmacy
  - >4 medicines per day
I TOLD YOU DRUGS CAN CAUSE FALLS Didn't I!
Can Medicines Cause Falls?

Medicines may make you drowsy, dizzy or unsteady

• Could be the way it works
  – Sleeping tablets
• May be too effective
  – Antihypertensives
• A side effect
Drowsy

Medicines for

• Anxiety
• Sleeping tablets
  – Almost doubles risk
• Some antidepressants
• Anti-epileptics
• Antihistamines
• Anti-nauseants
• Strong pain relievers
• Antipsychotics
Dizzy

Medicines for

• Blood Pressure
• Fluid retention
• Parkinson’s disease
• Some antidepressants
• Antipsychotics
• Anti-epileptics
• Sleeping tablets
• Strong analgesics
Blurred Vision

Medicines for

- Some antidepressants
- Antipsychotics
- Urinary Incontinence
- Some pain relievers
- Occasionally eye drops/ointments
Miscellaneous

- **Agitation**
  - Antidepressants, caffeine/stimulants, antipsychotics

- **Cognitive Impairment/Confusion**
  - Sleeping tablets (4-5 x), antidepressants, antipsychotics

- **Gait abnormalities**
  - Metoclopramide, antipsychotics
Incontinence and Falls

Increased risk of falls due to rushing.
Can medications cause incontinence?

- **Urge incontinence**
  - Meds for dementia
  - Diuretics

- **Urinary retention leads to overflow**
  - Opioids, oxybutynin

- **Laxatives**
Medical Conditions and Falls

- Stroke
- Parkinson’s disease
- Low blood pressure
- Diabetes
- Cataracts
- Arthritis
- Foot problems
- Epilepsy
- Dementia

Delivering local health solutions through general practice
How you can help

• Ask about dizziness, drowsiness, blurred vision and rushing
• Ask if they have fallen before
  – When, where, why?
• Consider post prandial hypotension
• Hospitalisations due to accidental falls outside the home were fewer than such falls in the home (6.6% vs. 48%).
  – “I only use my walking stick when I go out. I know my way around my own house....”
Help with Medications

• Ask
  – New medications?
• Manage Medications
• Avoid confusion
  – Hospital discharge
Osteoporosis

Ask about diet: fluid, calcium, vitamin D

- Dehydration can lead to postural hypotension

*If* they fall – reduce the risk of a break
QUESTIONS??

Special thanks to Deirdre Criddle

Acting Executive Officer
Pharmacy
Sir Charles Gairdner Hospital
STAY ON YOUR FEET®
STEP 3
MANAGE YOUR HEALTH

1: 4 people over 60 years fall per year

Presented by Dee Sutcliffe CNC

For info and advice on bladder and bowel issues contact Continence Advisory Service of WA

WA Country call : 1800 814 925
Causes of Falls

- Falls usually have more than one cause.
- *Intrinsic* (personal) causes affect the person individually:
  - medical condition
  - vision impairment
  - medication
  - lifestyle factors, malnutrition, alcohol, fluids
  - risk-taking behaviour.

- *Extrinsic* (external) causes, such as an unsafe environment, hazards, footwear, walking aids etc.

- Together these are called *risk factors.*
Impaired physical function

• Limitations in activities of daily living (ADL) can affect:
  • balance & coordination
  • mobility
  • strength
  • Poor sensation
  • vision
  • steadiness
  • walking ability
Medical Conditions can increase the risk of falls

<table>
<thead>
<tr>
<th>Conditions</th>
<th>Other factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heart conditions</td>
<td>Poor Vision</td>
</tr>
<tr>
<td>Diabetes</td>
<td>Psychological – fear of falling</td>
</tr>
<tr>
<td>Parkinson’s Disease</td>
<td>Nutritional deficiencies- Vitamin D, low BMI</td>
</tr>
<tr>
<td>Arthritis</td>
<td>Lethargy and fatigue</td>
</tr>
<tr>
<td>Osteoporosis</td>
<td>Cognition</td>
</tr>
<tr>
<td>High/low blood pressure</td>
<td>Inactivity</td>
</tr>
<tr>
<td>Depression</td>
<td></td>
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<tr>
<td>Dementia</td>
<td></td>
</tr>
</tbody>
</table>
Medical conditions and increased risk of falls

<table>
<thead>
<tr>
<th>Chronic Diseases</th>
<th>Falls</th>
<th>Related to:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heart conditions</td>
<td></td>
<td>Hypotensive and diuretic drugs, oedema</td>
</tr>
<tr>
<td>Diabetes</td>
<td>24%</td>
<td>Peripheral neuropathy – 50% Unstable blood sugars Reduced vision, renal function</td>
</tr>
<tr>
<td>Parkinson Disease</td>
<td>38-68% year</td>
<td>Hypokinesia, Rigidity Postural instability</td>
</tr>
<tr>
<td>Arthritis</td>
<td></td>
<td>Pain and joint instability. Stiff gait</td>
</tr>
</tbody>
</table>
Medical conditions and increased risk of falls (continue)

<table>
<thead>
<tr>
<th>Blood pressure</th>
<th>Postural hypotension</th>
<th>Associated with cardiac disease, tricyclic antidepressant medications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression</td>
<td>2.2 fold increase</td>
<td>Anti depressants Less erect and sure footed</td>
</tr>
<tr>
<td>Dementia</td>
<td>twice the risk of falls, due to visual –spatial awareness</td>
<td>Unaware of limitations, hazards. Confused re environment Neuroleptic meds</td>
</tr>
<tr>
<td>Vision</td>
<td>76% fall had poor vision</td>
<td>40% needed glasses 37% cataracts 14% macular degeneration</td>
</tr>
</tbody>
</table>
Medications for chronic medical conditions

- Some medications, alone or in combination, can have side effects
  - dizziness, confusion, drowsiness, light-headedness
  - includes medications for high BP, anxiety, sleep problems, heart
  - may occur after period of illness, change of dosage or brand
Multifactorial Assessment may include:

- Identification of falls history
- Assess gait, balance, mobility, muscle weakness
- Osteoporosis risk
- Clients perceived functional ability and fear relating to falling
- Assess visual impairment
- Cognitive impairment and neurological examination
- Cardiovascular examination and medication review
- Assess urinary incontinence
- Home hazards
Assessment of Falls – FRAT

Flowchart:
1. Periodic case finding in Primary Care: Ask all patients about falls in past year
2. Recurrent Falls
3. Single Fall
4. Gait/balance problems
5. Check for gait/balance problem
6. No Problem
7. No Falls
8. No intervention
9. No Problem
10. Fall Evaluation*

Fall Evaluation:
- Assessment
  - History
  - Medications
  - Vision
  - Gait and balance
  - Lower limb joints
  - Neurological
  - Cardiovascular

Multifactorial intervention (as appropriate)
- Gait, balance, & exercise programs
- Medication modification
- Postural hypotension treatment
- Environmental hazard modification
- Cardiovascular disorder treatment
## PART 2: RISK FACTOR CHECKLIST

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vision</td>
<td>Reports / observed difficulty seeing - objects / signs / finding way around</td>
</tr>
<tr>
<td>Mobility</td>
<td>Mobility status unknown or appears unsafe / impulsive / forgets gait aid</td>
</tr>
<tr>
<td>Transfers</td>
<td>Transfer status unknown or appears unsafe i.e. over-reaches, impulsive</td>
</tr>
<tr>
<td>Behaviours</td>
<td>Observed or reported agitation, confusion, disorientation</td>
</tr>
<tr>
<td></td>
<td>Difficulty following instructions or non-compliant (observed or known)</td>
</tr>
<tr>
<td>Activities of Daily Living</td>
<td>Observed risk-taking behaviours, or reported from referrer / previous facility</td>
</tr>
<tr>
<td>(A.D.L.'s)</td>
<td>Observed unsafe use of equipment</td>
</tr>
<tr>
<td></td>
<td>Unsafe footwear / inappropriate clothing</td>
</tr>
<tr>
<td>Environment</td>
<td>Difficulties with orientation to environment i.e. areas between bed / bathroom / dining room</td>
</tr>
<tr>
<td>Nutrition</td>
<td>Underweight / low appetite</td>
</tr>
<tr>
<td>Continence</td>
<td>Reported or known urgency / nocturia / accidents</td>
</tr>
<tr>
<td>Other</td>
<td></td>
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</table>
Falls and urinary incontinence— a link ripe for intervention

Lower urinary tract symptoms (LUTS):
• Frequency
• Urinary urgency and urge incontinence
• Nocturia
• Urinary tract infections
• Urinary incontinence

Morris & Wagg, 2007

• 30% falls were related to toileting
How much should we drink?
The association with falls

Why people don’t drink

- Loss of thirst
- Fear of an accident
- Medications – diuretics
- Getting up at night
- Poor swallowing
- Don’t like the taste

Dehydration leads to:

- Dehydration- light headed, dizzy, headache
- Concentrated urine
- Blood pressure- postural drop
- Dehydrated skin and tissues
- Urinary tract infections
- Constipation
Types of bladder problems – Frequency

Causes:
- Excessive fluid intake
- Reduced bladder capacity
- Fluid tablets
- Raised blood sugars
- Obstruction e.g. enlarged prostate
- Urinary tract infection

Laidlow, 2006
Over Active bladder (urgency & urge incontinence)
35% risk if daily urge incontinence, 21% increase if weekly

- Hearing the sound of running water
- Caffeine
- “Key in the door”
- Cold weather
- Urinary tract infections
- Secondary to obstruction
- Neurological disease
- Diuretics (fluid tablets)
- Caffeine or alcohol
- Hormonal changes
- Ageing

Morris, 2007 & Moon et al, 2011
Atonic bladder

**Signs:**
Not going often in the day but frequently at night, or recurrent urinary infections

**Secondary to:**
- Dementia
- Spinal injuries such as paraplegia
- Diabetic nerve damage

**Double Void to lower residual urine**
- Void twice each trip to the toilet
- Women stand between voids
- Men sit for the second void
- Adequate fluids
- Decrease fluid intake 2 hours prior to bed
Nocturia – 3 or more times, increases falls – 28% increased risk over 3 years

- Produce too much urine overnight
- Reduced bladder capacity
- Medicines (fluid tablets)
- Diabetes
- Sleep problems / depression
- Time spent in bed at night

Vaughan et al 2010
Remember bladder or bowel incontinence

• Is a symptom of an underlying problem.

• Often related to chronic medical condition

• Accurate assessment can lead to improvement or a cure:
  1. Medical History
  2. Bladder and bowel chart
  3. Management Plan
Decrease the Incontinence, decrease the Falls

- Over 70% of people with bladder and bowel control issues can be significantly improved by behaviour modifications, changes to fluids, diet, and exercise

- Good evidence for an association between the risk of falling and the presence of urinary incontinence, not routinely included in interventions to reduce falls

Aim of Treatment

• prevent further deterioration in their medical condition

• maintain function and wellbeing, where possible

• restore some of lost function, if possible
Identify, Report and Remove Hazards

ICCWA: Video Conference 27 June 2012

Christine Sibon
Falls Specialist/Senior Occupational Therapist
Fremantle Hospital & Health Service
Identifying Hazards in and around the Home

- **Occupational Therapy Assessment**
  - As a single intervention home environment assessment are effective for reducing falls in high-risk older people (Gillespie 2009).
  - Older people considered to be at higher risk of falling should be assessed by an occupational therapist for specific environmental or equipment needs and training to maximise safety. (NFPG 2009)

- **Self Assessment/Family**
  - Use of the Home Safety Checklist (SOYFWA) or other similar tool by clients/carers/family etc to identify hazards

- **Other Health Professionals**
  - Home Visiting Services, ACAT, Falls Specialists, Home Visiting Nurses/GPs
Outline:

- Identification of Hazards
  - In The Home
  - Around the Home
  - In the Community

- Other Hazards/Factors to consider
Identifying Hazards in and around the Home

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RISK FACTORS FOR FALLING
Considering Intrinsic Falls Risk Factors:

- Age and history of falls.
- Polypharmacy/medication use.
- Medical diagnoses.
- Sensory Factors – vision, sensation.
- Muscular Factors – impaired strength, balance and reaction time.
- Cognitive impairment
- Depression.
- Fear of Falling.
- Inactivity- reduced mobility, activity levels.
- Incontinence.
- Recent illness.
POOR
LOW

Balance

Environmental Hazards

GOOD
HIGH
In the Home

- CLUTTER/OBSTACLES
- LIGHTING
- FLOORING
- FURNITURE/LAYOUT
- STEPS/STAIRS
- LADDERS
- BATHROOM/TOILET
- EQUIPMENT NEEDS
LIGHTING
FLOORING
FURNITURE/LAYOUT
LADDERS
STEPS and STAIRS
BATHROOM/TOILET
EQUIPMENT NEEDS
Around the Home

- STEPS
- PATHS
- LIGHTING
- STORAGE
- SLIP/TRIP HAZARDS
- WEATHER CONDITIONS
STEPS
STEPS
PATHS
LIGHTING
STORAGE
SLIP/TRIP HAZARDS
WEATHER CONDITIONS
In the Community

- Consider: pavements, curbs, steps and poorly lit areas and walkways.

- Consider access and hazards when you are in public buildings.

- If you see a potential hazard report it to the appropriate body. e.g. the local council, the owner/manager of the commercial property.
PAVEMENT CURBS
PATHS (LIGHTING)
Other Hazards

- FOOTWEAR
- EQUIPMENT/AIDS
- CLOTHING
- PETS

Department of Health. 2005
Stay on your feet and avoid a shattering experience. Injury Prevention Branch WA.
Assisting Uptake of Recommendations

- Client Centred Approach
- Education on importance/relevance of hazards and why removal/alteration is recommended
- Evidence base
SUMMARY

- Consider in, around the home and in the community when assessing for hazards. Report hazards to the appropriate authority.
- Consider Occupational Therapy Referral for home assessment, equipment provision and education/training.
- Could incorporate recommendations such as:
  - Ensuring adequate lighting and reducing glare
  - Enhancing contrast at change of flooring levels
  - Modifying slippery floors or steps
  - Reducing clutter and obstacles
  - Removing loose carpets/mats
  - Fixing uneven and broken pathways
Case Study

• Bill is a 75 year old man who has diabetes and has had 3 falls in the last 12 months all of which have occurred in the middle of the night.

• His latest fall caused him to be admitted to hospital for serious bruising and has recently been sent back home. The hospital has prescribed pills that look different to what Bill was taking previously.
Any Questions?
What Can We Do For You?

- FREE Resources (including bulk numbers)
- E - Newsletters
- Stay On Your Feet® Week 2012
  - 9-15 September 2012
  - Stay On Your Feet® Week Grant Applications Close Friday 29 June
- Review of ‘Falls Prevention for Aboriginal People; A tool Kit for Aboriginal Health Workers and Aboriginal Communities’
- Do you have other ideas of how we can help you?
  - Let us know…
- Survey
Thank you
For enquiries please contact:
Stay On Your Feet WA® Falls
Resource Information Centre
Phone: (08) 9420 7212
Email: soyfwa@iccwa.org.au
Visit: www.stayonyourfeet.com.au