Strategies to Assess and Prevent Falls in Assisted Living Communities

WiCAL PEAL Webinar
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- Department of Health Services (DHS)
- LeadingAge Wisconsin
- Wisconsin Assisted Living Association (WALA)
- Wisconsin Center for Assisted Living (WiCal)
- Residential Services Association of Wisconsin (RSA)
- UW-Madison Center for Health Systems Research and Analysis (CHSRA)

400+ Assisted Living Communities who participate in WCCEAL
Presentation Objectives

• Discuss falls in older adults
  – Nationally
  – Wisconsin

• Review falls in Wisconsin Assisted Living Communities (ACL) and WCCEAL ALCs

• Review findings from ICTR grant related to falls prevention in Wisconsin ALCs

• Discuss falls prevention process flowchart
Older Adult Falls Nationally
National Information

• For older adults (65+) \(^1\),
  – 1 in 3 fall each year
  – Every 13 seconds an older adult is seen in ED for a fall
  – 64% of non-fatal injuries are due to falls
  – Hospitalizations for falls is 5x greater than other causes for older adults
  – Frailty increases the risk of a fall

• Falls with injury impact independence and mortality\(^1\)
• 16.5% of Nursing Home and 21.1% of residential care community residents had a fall in the past 90 days.\(^2\)
• However, no specific national falls data exists for ALCs

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Rate of Fall Deaths per 100,000 individuals

Age Groups
- 20-24: 1.08
- 25-29: 1.15
- 30-34: 1.11
- 35-39: 1.46
- 40-44: 1.86
- 45-49: 2.82
- 50-54: 4.23
- 55-59: 6.04
- 60-64: 7.66
- 65-69: 11.32
- 70-74: 20.51
- 75-79: 42.88
- 80-84: 84.98
- 85+: 241.5

Source: http://webappa.cdc.gov/sasweb/ncipc/mortrate10_us.html
Older Adult (65+) Unintentional Fatal and Non-Fatal Falls Age-Adjusted Rate per 100,000 Population

Includes all races and gender

In 2014, unintentional falls account for older adults (65+):
  – 68% of all non-fatal injuries nationally
  – 57.5% of all deaths nationally
  – 78.3% of all deaths in Wisconsin

The ratio of unintentional falls as compared to all other causes of death and injury is:
  – 2.1 to 1 for all non-fatal injuries nationally
  – 1.4 to 1 for all deaths nationally
  – 3.6 to 1 of all deaths in Wisconsin
Older Adult Falls in Wisconsin
Older Adult (65+) Unintentional Fatal and Non-Fatal Falls Age-Adjusted Rate per 100,000 Residents

Includes all races and gender
Falls in Older Adults in Wisconsin

• In a recent analysis of CDC data\(^1\), Wisconsin ranked in the top five of all states in

  – Falls mortality rate (90.3 per 100,000 persons, #3)

  – Unintentional injury (130.7 per 100,000 persons, #4)

  – Falls as a percent of unintentional injury (71.5%, #1)

Falls in Older Adults in Wisconsin

• In 2014, falls in older Wisconsin residents (65+) resulted in approximately
  – 17,200 hospitalizations and
  – 37,200 falls related emergency department (ED) visits (WIDHS, 21 Jul 2016).

• The average cost to treat a fall is $35,000 per hospital stay and $3,100 per ED visit

• As a result, over $715 million was spent in Wisconsin hospitals for total fall related injuries.

Falls in All Wisconsin ALCs and in WCCEAL ALCs
Assisted Living Community Self-Reported Falls Requiring Hospitalization and/or ED Visit

75% of falls requiring either a hospital stay or ED visit are treated in the ED. (Burns et al, 2016)
Average ED Cost is $4,829 vs. $30,550 for a hospitalization. (Burns et al, 2016)
Assisted Living Community Rate of Total Self Report Falls per 1,000 Resident Days

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Falls in WCCEAL
WCCEAL Members Falls Rate with Injury per 1,000 Resident Days

Rate of Falls

Quarter


0.55 0.62 0.61 0.57 0.49 0.50 0.54 0.51 0.56 0.53 0.52
WCCEAL Members Falls Rate with Injury per 1,000 Resident Days by Community Type

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How many falls are “too many”?

• In an ideal world, 1 falls is too many because it increases the risk for injury.

• Given that we do not live in an ideal world, the goal of prevention is to minimize risk.
What do we know about falls in older adults?

• Unintentional falls leading cause of death and injury both nationally and in Wisconsin

• Rates of these events continue to increase and will continue to ALC population increases

• Economic healthcare cost associated with falls

• Falls and associated healthcare costs for Assisted Living are increasing

• The true impact of falls in Assisted Living has not been fully explored and the number of falls in ALCs may be underestimated
What is a Falls Prevention Process?

ICTR Funding: Falls in Assisted Living
ICTR Falls Project

- Explored the state of falls prevention in Wisconsin ALCs
- Utilized a combination of surveys and interviews to
  - Understand the process for measuring and tracking falls
  - Learn about efforts to disseminate information about falls within the ALC
  - Ask about approaches utilized to mitigate a falls risk and investigate falls
  - Inquire about the falls assessment and the falls prevention program utilized
  - Ask about data monitoring/dissemination approaches within the ALC.
ICTR Falls Project

• The results demonstrated inconsistency and variability in the use of falls risk assessments and prevention programs

• We used the results to
  – Develop a standardized, proactive falls prevention process flowchart
  – Identify strategies and inform efforts to establish a more consistent, proactive falls prevention process for ALCs.
Falls Prevention Process

1. Resident Identified for Assisted Living Admission

2. Resident Falls Risk Assessment

3. Falls Prevention Program Implemented*

4a. Resident Fall Occurs

4b. Post Falls Assessment/Root Cause

4c. Actions Implemented to Prevent Future Falls

4d. Documentation and Communication (Internal/External)

5. Document and Track Falls

6. Feedback about Falls

* Process steps may not be present in all ALCs
Falls in Assisted Living
(Bureau of Assisted Living Guidance)

- Falls Risk Assessment
- Interventions to Prevent Falls
- Responding to a Fall
- Investigation of a Fall
- Balancing Maximum Independence & Safety
- Regulations related to Falls

Bureau of Assisted Living Report 00994
AGS/BGS Fall in Older Adult Algorithm

- Screen an individual for falls risk
- Assess falls risk (based on screening results)
- Engage individual in an intervention to minimize the risk of falls
- Repeat on a periodic basis
AGS/BGS Clinical Practice Guidelines: Falls Screening and Assessment

Screening
- Falls history
- Gait or balance issues

Falls Assessment
- Focused History
  - History of Falls
  - Medication review
  - History of relevant risk factors (Acute and chronic)
- Physician Examinations
  - Neurological Function
  - Muscle strength of the lower extremities
  - Assessment of gait, balance and mobility levels and lower extremity joint function
  - Cardiovascular status
  - Visual Acuity
  - Feet and Footwear
- Functional Assessment
  - Activities of Daily Living Skills including use of adaptive equipment and mobility aids, as appropriate
  - Perceived functional ability/fear of falling
- Environmental assessment including home safety

Note: BAL Report 00994 also recognizes that incontinence or toileting needs may predict individual likelihood of falling
Lessons Learned: Initial Assessment

- Initial assessment varied across ALCs
- “ALC developed” vs. standardized risk vs. no initial risk assessment.
- Components of the assessment

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<th>Falls Risk Assessment Component</th>
<th># of ALCs</th>
<th>% of ALCs</th>
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<tr>
<td>Medications</td>
<td>12</td>
<td>92%</td>
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<tr>
<td>Gait/Balance Ambulation/Equipment</td>
<td>11</td>
<td>85%</td>
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<tr>
<td>History of Falls</td>
<td>10</td>
<td>77%</td>
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<tr>
<td>Predisposing Disease/condition</td>
<td>10</td>
<td>77%</td>
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<tr>
<td>Mental Status/cognition</td>
<td>9</td>
<td>69%</td>
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<tr>
<td>Blood Pressure</td>
<td>8</td>
<td>62%</td>
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<tr>
<td>Vision/Sensory Status</td>
<td>6</td>
<td>46%</td>
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<tr>
<td>Continence-(ADL’s)</td>
<td>5</td>
<td>39%</td>
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<tr>
<td>Impulsivity</td>
<td>2</td>
<td>15%</td>
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</table>
Frequency of AGS/BGS Assessment Components

Based on a convenient sample of 22 ALCs at Focus Conference
Falls Prevention Process

1. Resident Identified for Assisted Living Admission
2. Resident Falls Risk Assessment
3. Falls Prevention Program Implemented*
4. Resident Participates in Falls Prevention Program*
5. Document and Track Falls
6. Feedback about Falls

4a. Resident Fall Occurs
   - ALC Specific Feedback
   - Resident Specific Feedback

4b. Post Falls Assessment/Root Cause
4c. Actions Implemented to Prevent Future Falls
4d. Documentation and Communication (Internal/External)

* Process steps may not be present in all ALCs
AGS/BGS Fall in Older Adult Algorithm: Intervention
AGS/BGS Clinical Practice Guidelines: Falls Screening and Assessment

Post Falls Assessment

- **Focused History**
  - History of Falls
  - Medication review
  - History of relevant risk factors (Acute and chronic)

- **Physician Examinations**
  - Neurological Function
  - Muscle strength of the lower extremities
  - Assessment of gait, balance and mobility levels and lower extremity joint function
  - Cardiovascular status
  - Visual Acuity
  - Feet and Footwear

- **Functional Assessment**
  - Activities of Daily Living Skills including use of adaptive equipment and mobility aids, as appropriate
  - Perceived functional ability/fear of falling

- **Environmental assessment including home safety**

Note: BAL Report 00994 also recognizes that incontinence or toileting needs may predict individual likelihood of falling
AGS/BGS Clinical Practice Guidelines: Falls Intervention Components

- Appropriate exercise program including balance, strength and gait training
- Environmental adaptation or modification
- Review and change medications including anti-psychotics
- Manage postural hypotension
- Address foot problems and footwear
- Include an educational component tailored to intervention
- Follow-up vision assessment and treatment, if needed
- Offer appropriate vitamin D supplements, if needed


BAL also talks about assistance with ADL, teach how to use assistive devices
Falls Prevention Process

1. Resident Identified for Assisted Living Admission
2. Resident Falls Risk Assessment
3. Falls Prevention Program Implemented*
4. Resident Participates in Falls Prevention Program*
5. Document and Track Falls
6. Feedback about Falls

Resident Specific Feedback

4a. Resident Fall Occurs

4b. Post Falls Assessment/Root Cause

4c. Actions Implemented to Prevent Future Falls

4d. Documentation and Communication (Internal/External)

* Process steps may not be present in all ALCs
Lessons Learned: Communication

- **Family or Primary Care Physician** (Interviews)
  - 7.5% communicate with family
  - 6.5% had a process to communicate with the PCP

- **Residents** (Survey)
  - 12.9% provide residents with written information about falls prevention program.
  - 6.5% ask the resident to review or identify falls risk

- **Staff** (Survey)
  - 83% provide information at staff or in-service meetings
  - 66% have a process to share and communication about their falls prevention program.
  - 57% did not indicate how often information is communicated
  - 78.5% use meetings or training to orient new staff to the falls prevention program
## Lessons Learned: Documentation and Feedback

### Processes Utilized by ALCs to Report and Track Falls

<table>
<thead>
<tr>
<th>Process</th>
<th>N (% of Total)</th>
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</thead>
<tbody>
<tr>
<td>1. Resident specific reporting</td>
<td>58 (62.4%)</td>
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<tr>
<td>2. Community falls database, report or spreadsheet</td>
<td>32 (34.4%)</td>
</tr>
<tr>
<td>3. Staff verbal communication (e.g., via huddle, discussion or other indication of a verbal exchange)</td>
<td>7 (7.5%)</td>
</tr>
<tr>
<td>4. Follow-up intervention</td>
<td>48 (51.6%)</td>
</tr>
<tr>
<td>5. Indication that the ALC policy and procedures is followed including QI/QA</td>
<td>8 (8.6%)</td>
</tr>
<tr>
<td>6. Incident communicated with MD or Family or other individuals</td>
<td>6 (6.5%)</td>
</tr>
<tr>
<td>7. Other (e.g. Root Cause Analysis, Review of Prior Falls)</td>
<td>7 (7.5%)</td>
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</tbody>
</table>
Lesson Learned: Falls Prevention Programs

• Proactive vs. reactive falls prevention programs.

• Barriers included:
  – Not a top priority
  – Lack of a clear vision for falls prevention
  – Unable to access resources
  – Time
  – Resident engagement
Additional Information

• Findings highlight the importance of educating staff regarding assessments, resident motivation, falls prevention programs and feedback, all key components of the falls prevention process.

• As requests for additional information is made, we will research and post (after approval) to the WCCEAL website.
Falls Risk Factors and Assessment for Residents with ID/DD

Intrinsic Risk Factors

• Use of assistive devices
• Medical
  – Seizures
  – Urinary incontinence
  – Foot pain
• Behavioral
  – History of destructive behavior
  – Behavior change
• Medications
  – Antipsychotic
  – Anti-seizure/epilepsy
  – Taking 4+ medications

Additional Falls Risk Assessment

<table>
<thead>
<tr>
<th>Category</th>
<th>Area of Assessment</th>
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<td>History</td>
<td>Use of Assistive Devices</td>
</tr>
<tr>
<td></td>
<td>Seizures</td>
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<td></td>
<td>Changes in behavior, function, self-care or daily routine</td>
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<tr>
<td>Physical Exam</td>
<td>Endurance</td>
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<td></td>
<td>Reaction Time</td>
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<td></td>
<td>Hypothyroidism</td>
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<td></td>
<td>Sensitivity to touch and pain</td>
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</table>

Hsieh, Kelly, and James Rimmer. "Identification of Falls Risk in Adults with ID."
FALLS

Falls are a significant cause of injury in all ages of the U.S. population, but a particular burden in those individuals ages 65 years and older. One third of people over the age of 65 years fall every year. Ten percent of these falls are serious enough to require hospitalization. Falls may also lead to premature death. Wisconsin has one of the highest rates of death from unintentional falls in the nation. In fact, the death rate due to unintentional falls in Wisconsin is twice the national average. The good news is falls are preventable.

The mission of the Wisconsin Falls Prevention Initiative, an initiative of the Wisconsin Department of Health Services, is to reduce falls and fall-related complications and deaths among Wisconsin's older adults through the integration of community based and medical prevention approaches. The Burden of Falls in Wisconsin 2010 “suggests resources and strategies that may reduce the burden, along with information on evidence-based prevention programs that exist in Wisconsin.”

These informational links provide information about falls and falls prevention in general and more specifically about how Assisted Living Facilities in Wisconsin address this important public health concern.
# FALLS ASSESSMENT TOOLS

Components of Falls Assessment Tools

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<th>Program</th>
<th>Falls History</th>
<th>Cognition and Behavior</th>
<th>Acute and Chronic Disease</th>
<th>Sensory Deficits</th>
<th>Medications</th>
<th>Mobility</th>
<th>Environment</th>
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AGS/BGS Clinical Practice Guideline: Prevention of Falls in Older Persons - Summary of Recommendations

Website created by CHSRA
Last Updated August 2016
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## FALLS PREVENTION PROGRAMS

### Components of WCCEAL Falls Prevention Programs

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<th>Evidence Based</th>
<th>Education</th>
<th>Exercise alone</th>
<th>Exercise PT alone</th>
<th>Exercise Combination</th>
<th>Medication Review</th>
<th>Vision</th>
<th>Environmental Factors</th>
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*No specific falls program recommended, just suggestions for inclusion.

AGS/BGS Clinical Practice Guideline: Prevention of Falls In Older Persons - Summary of Recommendations
Falls Prevention Process

1. Resident Identified for Assisted Living Admission
2. Resident Falls Risk Assessment
3. Falls Prevention Program Implemented*
4. Resident Participates in Falls Prevention Program*
5. Document and Track Falls
6. Feedback about Falls

- 4a. Resident Fall Occurs
  - 4b. Post Falls Assessment/Root Cause
  - 4c. Actions Implemented to Prevent Future Falls
  - 4d. Documentation and Communication (Internal/External)

* Process steps may not be present in all ALCs
While we were talking..

... approximately 415 older adults (65+) received treatment in an emergency department for a fall.

By the end of the day...

... on average 1.5 persons in a WCCEAL ALC will have had a serious enough fall to require medical attention
... ALC statewide will have reported to BAL that 6 residents had a fall that required medical attention
... and many others may have fallen that we do not know about.

How can we help you?
For further information:
CHSRA: www.chsra.wisc.edu
WCCEAL: wcceal.chsra.wisc.edu/