2019 Pennsylvania Health Care Association Webinar

A Collaborative Approach to Falls Management

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aegis therapies®
Presenters and Disclosures

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• Both presenters are salaried employees of Aegis Therapies, a nation-wide contract therapy company providing Occupational Therapy, Physical Therapy, Speech Language Pathology and Wellness services in post-acute care.
• We have no disclosures or conflicts of interest to report.
Falls Management/Prevention

A Real Possibility for Our Geriatric Clients
Session Objectives

Attendees will:

1. Recognize major components contributing to fall risk in the elderly population.

2. Describe the roles of the interdisciplinary/transdisciplinary team with the implementation of a comprehensive falls management program.

3. Attendees will be able to articulate specific fall prevention strategies for elderly clients displaying cognitive and vision impairments.
Agenda

• Transdisciplinary approach
• Facts about falls
• Falls prevention for patients with cognitive impairment and visual deficits
• How to develop a comprehensive falls prevention program
  • Falls prevention team roles
  • Steps to follow
• Recreation/activity-based programming with falls prevention
• Facility specific planning
Fall Risk Statistics-Older Adults > 1:4 fall annually

- **Medications**, especially poly-pharmacy, are a major risk factor
  - >33% of older adults take 5 or more daily medications
- Falls are the most common cause of TBI
- Fall risks include:
  - LB weakness
  - Vitamin D deficiency
  - Gait and/or balance deficits
  - Vision problems
  - Poor footwear or foot pain
  - Household hazards
  - Assistive devices or improper use
  - Pets
  - Cognition

https://www.cdc.gov/features/falls-older-adults/index.html
Impact of Falls on Nursing Homes

• 1.3 million people resided in nursing homes (2017)
• At least 50% of elders in nursing homes fall at least once annually (2x the rate of community dwellers); 1 of 3 will fall two or more times.
• 1 in 10 have a serious injury related to a fall; 65,000 suffer hip fracture and those without injury often develop a fear of falling leading to a self-imposed limited activity. (Emory Center for Health and Aging)
What are These Risk Factors?

Extrinsic
• Assistive Devices
• Environmental Hazards
• Wet, slippery surfaces
• Uneven, cluttered surfaces
• Lighting
• Trips, obstacles
• Jostle in crowd
• Medications
  • Decreased alertness
  • Retards central conduction
  • Impair cerebral perfusion
  • Affect postural control

Intrinsic
• Orthostatic hypotension
• Acute illness
• Cardiovascular conditions
• Neurological conditions
• Musculoskeletal disorders
• Hearing
• Vertigo
• Depression
• Age-related changes in postural control
  • Impaired Vision
  • Cognition
How Do We Mitigate the Risk?

Understanding the disease and disease process
Understanding the person behind the disease
Determining the person’s best ability to function
Cognitive Impairments: How Does This Impact Us?

According to the latest statistics from the Alzheimer's Foundation at http://www.alzfdn.org/AboutAlzheimers/statistics.html

- 1.3 Million people 65+ living in nursing homes
- 45-67% of all nursing home residents have dementia
- $157 billion dollars average annual cost of dementia care
Evidence supports the increased risk of falls in individuals even in the early stages of dementia or MCI, and changes in gait, balance, and fear of falling that may be related to this increased fall risk.

Interventions included exercise and multifactorial interventions that demonstrated some potential to reduce falls in this population.

Few studies had strong designs to provide evidence for recommendations. Further study in this area is warranted.
Major Health/Safety Concerns for Those Living with Dementia

• 5th leading cause of death for people 65 and older
• Falls
• Hospitalization
• Wandering
Persons with Dementia Fall Risk is 4-5 Times Greater

Changes in

- Judgment and reason
- Recognition of sensory input
- Communication (receptive and expressive)
- Movement initiation
- Movement coordination due to neural changes
- Environment and/or interpretation of
- Memory retention
Risk Factors for Falling with Dementia

- Are more likely to experience problems with mobility, balance and muscle weakness
- Can have difficulties with their memory and finding their way around
- Can have difficulties processing what they see and reacting to situations
- May take medicines that make them drowsy, dizzy or lower their blood pressure
- Are at greater risk of feeling depressed
- May find it difficult to communicate their worries, needs or feelings
Understanding the Person Behind the Disease?
Understanding the Person Behind the Disease

- My Way Tool
- Quality of Life Tool
  - QOL-AD
  - QUALID
- Life Story
- Implications for falls management
- Interest Checklist

http://www.agedcaretests.com/QUALITY_OF_LIFE_IN_LATE-STAGE_DEMENTIA_(QUALID)_SCALE_SAMPLE.pdf
We Need to Consider...

Dementia (specific type), decline and changing behavior AND the risk factors for falls
Cognitive Disability Model

- Model for evaluation and intervention
- Hierarchy of cognitive processing skills
- Measures the severity of cognitive disability
- Measurement of what a person can do
- Predictive assessment

Can my patient live alone?
### Allen Cognitive Levels – Developmental Age Comparison

<table>
<thead>
<tr>
<th>Level</th>
<th>Allen Title</th>
<th>Stage</th>
<th>Developmental Age Comparison</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 1</td>
<td>Automatic Actions</td>
<td>Advanced</td>
<td>Infant to 11 Months</td>
</tr>
<tr>
<td>Level 2</td>
<td>Postural Actions</td>
<td>Late</td>
<td>12 to 18 Months</td>
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<tr>
<td>Level 3</td>
<td>Manual Actions</td>
<td>Middle</td>
<td>18 Months to 3 Years</td>
</tr>
<tr>
<td>Level 4</td>
<td>Goal-Directed Activity</td>
<td>Early</td>
<td>4 to 10½ Years</td>
</tr>
<tr>
<td>Level 5</td>
<td>Independent Learning</td>
<td>MCI</td>
<td>Teens to Early 20s</td>
</tr>
<tr>
<td>Level 6</td>
<td>Planned Actions</td>
<td>Normal</td>
<td>25 Years +</td>
</tr>
</tbody>
</table>

Aegis therapies®
Thinking About:

- Survival

Field Of Conscious Awareness:

Attention To 5 Senses:
- Smell
- Sound
- Taste
- Sight
- Touch

Associated Movements:
- Protective Reflexes
- Locating Strong Stimuli
- Sustenance

Concept used with permission from Tina Blue
POSTURAL ACTIONS

Field Of Conscious Awareness:

Attention To:
- Trunk Balance
- Movements of Extremities
- Large External Objects
- Cues To Barriers

Associated Movements:
- Overcoming Effects of Gravity
- Sit, Stand, Walk, R.O.M. & Push
- Avoiding Barriers

Thinking About:
- Proprioceptive Cues
- Stability / Falls
- Safety / Comfort

Concept used with permission from Tina Blue
Concept used with permission from Tina Blue
Field of Conscious Awareness

3 to 4 Feet

GOAL DIRECTED ACTIVITY

Attention To:
- Figure Ground Perception
- Striking Visual Cues
- Old Effects Of Actions
- Errors & Samples
- Possessions

Associated Movements:
- Goes To Next Step
- Self-Care Alone
- Complies With Direction

Concept used with permission from Tina Blue
INDEPENDENT LEARNING

Thinking About:

- I Make This Easier, Faster & Better?
- What’s In It For Me?
- “US” Against “THEM”

Field Of Conscious Awarenesses:

- The WORLD That Revolves Around Him or Her

Attention To:

- Discovery Of New Effects & Remember
- Surface Property & Textures
- Feelings Of Self & Personal Rights

Associated Movements:

- New Exploratory Actions
- Fine Motor Adjustments
- Talks & Works
- Impulsive

Concept used with permission from Tina Blue
Thinking About:

- What Would Happen If...?
- What Do you Think About This?
- What Are My Options?
- How Can I Help You?

Field Of Conscious Awareness:

Attention To:

- Symbolic / Abstract Cues: Time, Gravity & Evaporation.
- Hypothetical Risks as Anticipated Hazards
- Social Expectations & Personal Obligations
- Greater Good

Associated Movements:

- Stopping To Think
- Seeking More Information
- Checking Clock / Schedule
- Considering Needs of Others
- Organizing Priority

Concept used with permission from Tina Blue
Generally

- Allow resident extra time.
- Keep directions simple.
- Reduce amount of noise in the room.
- Provide consistent cues – talk to others to find out what works for them.
- Allow resident to do things for themselves.
- Make sure things are within their visual field.
- Keep residents active.
Safety/Risk Factors for Level 4 and 5

Early: Key Indicator(s) – Needs structure and routine for increased safety and independence

Decrease safety hazards by:

• Safety proofing the environment (remove power tools, flammables, toxins; safety proof stove)
• Restricting access to motor vehicles (assess skills for power chairs)
• Not allowing supervision of a child (4.2-5.4)
• Providing daily checks (4.8)
• Providing weekly checks (5.0-5.2)
• Providing assistance with finances and anticipating hazards (no $ for repairs)
• Providing consistent and predictable routines
• Providing support (4.8 and below)
• Providing consistent routines (5.4- and below)
Dementia – Falls Prevention Focus for Early Stage (ACL 4)

Minimal Assistance

- Misinterprets environment
- Unaware of safety
- Difficulty following multiple step directions
- Does not attend to details, such as locking breaks on wheelchair
- Can seeks help, but may be slow or not remember emergency procedures
- Confabulates – high verbal output
Early Stage (ACL 4’s) – SNF: What You Can Do To Prevent Falls

- **Put** walker (assistive device) in same place in all the time
- **Remove** clutter and things on floor
- Be sure they are wearing shoes when transferring and walking in room
- **Remind them** to lock wheelchair brakes
- **Cue patient** to scan the environment when moving around
- Provide an escort to unfamiliar locations
- **Demonstrate instructions** one step at a time, same way every time
- Use night light in room/bathroom
- **Use contrast** for distinguishing environmental obstacles (commode/sink/W-C brakes)
Dementia – Falls Prevention for Middle Stage (ACL 3’s)

- Tunnel vision 14 inches in front of their face
- Handles objects a lot (manual phase)
- Will not initiate activity
- Requires escort to arrive to location
- Cannot be left alone in bathroom
- Will not recognize need for help
- Unable to follow safety measures or be aware of danger
- Following verbal directions is difficult without repetition
- No reaction to new information or mixes new information with past events
- Unpredictable with social contact, may be physically or verbally abusive
Safety Risk Factors

• Compensate and decrease safety hazards by:
  • Providing physical barriers or alarms to prevent getting lost
  • Keeping rails down to prevent climbing over and falling
  • Repetitively labeling, demonstrating, and verbalizing where stairs are (3.6) or restrict access
  • Removing dangerous objects in room or bathroom area unless supervised
  • Caregiver provide assistance in solving problems
  • Providing visually striking cues to areas of danger (4.0- high 3’s), i.e., stop sign
Middle Stage: What You Can Do to Prevent Falls

- Reduce distraction by removing extraneous objects from view
- Allow person **extra time** to respond
- Have a toileting schedule and keep to it
- Use simple, familiar commands
- Cue patient to “take your time” or “slow down”
- Caregivers have to focus on all safety precautions, such as weight bearing or hip precautions; patient unable
- Provide **intermittent to constant cues** throughout task
- **Remember tunnel vision** – approach from the front and place items within 14 inches
Dementia – Falls Prevention for Late Stage (ACL 2)

Maximum assistance

• Patient’s goal is comfort
• Like rocking and gross movements
• Needs 24 hour supervision
• Will assist caregiver by moving body parts
• Attention span less than 5 minutes
• Largely unable to comply with verbal commands unless related to movement
• May only attend to things that come into their field of vision or have movement
• Visual field 12-14 inches, tunnel vision
Safety Risk Factors- Late stage

Decrease safety hazards by:

• Having patient programs in place for the prevention of risk:
  • Turning schedule to decrease pressure areas
  • PROM and positioning for contracture prevention and circulation
  • Decrease skin breakdown via frequent bathing and changing
  • Prevent dehydration via alternate nutrition
  • Adjusting the environment to prevent falls:
    • Provide for safe wandering area (2.4+) with secure doors, lighted hallways
Late Stage: What You Can Do to Prevent Falls

- Should have **assistance for all ambulation**
- Use one, two, three **count to facilitate** participation in transfers
- Ask “**yes-no** questions” to communicate needs
- Try having them sit in rocking chair if agitated
- Use swaying or slow dancing to facilitate ambulation
- Use gait belt at all times
- Use **grab bars** to maintain standing in **bathroom** to allow for pericare
- Put something in their hands to avoid grabbing and striking out
Positioning and Seating

Late: Advance stage – Wheelchair bound or bedridden, weakness, at risk for pressure ulcers, poor skin integrity

- Teach caregiver to:
  - Implement routine positioning schedule
  - Change patient’s position frequently
  - Provide postural supports for seating
  - Allow patient to assist as able
  - Provide verbal/physical dues to change position
  - To use adaptive positioning equipment to improve body alignment

- Patient is **cognitively** unable to **initiate a change in posture** (1.0-1.8)
- Patient can sit for 30 min. with back support (2.0)
- Static sitting can not be sustained without W/C or special equipment (1.2-1.9)
What Can You Do?

• Stick to resident’s routine as much as possible
• Try to get into their world – find out interests and what they like to talk about
• Ask simple yes-no questions
• “Do it” as you “Talk about it”
• Talk about the here and now
• Look at cause of any behaviors
Behavior Analysis Related to Prevention of Falls: Middle- Late Dementia

Mr. Smith is unaware of w/c foot rests below his knees and too much noise in dining room is distracting.

Table partner asks loudly (over radio playing) for more tea. This aggravates Mr. Smith.

He pushes back from table, rises and trips over foot rests with resulting fall to the floor.
Management and Falls Prevention - Team Approach

Development of Nursing & Activity-Based Functional Maintenance Programming (FMP).

- **FMP developed and caregiver educated on both ADL and Activity needs.**
- **Caregivers instructed on strategies to utilize in order to enhance management and improve both quality of life and functional independence.**
Low Vision and Falls Management
Normal Changes Associated with the Aging Eye

• Increased sensitivity to glare
• Need for more illumination
• Eyes take longer to adjust when going from light to dark places and vice versa
• More difficult to differentiate objects that are almost the same color
• Decrease in visual acuity
• Loss of peripheral vision
• Loss of color sensitivity
Age-Related Visual Dysfunction

- Macular Degeneration
- Diabetic Retinopathy
- Glaucoma
- Cataracts
Visual Disfunction – Implications for Falls Management

Macular Degeneration

Diabetic Retinopathy
Visual Disfunction – Implications for Falls Management

Glaucoma

Cataracts

DECREASE SIDE (PERIPHERAL) VISION

GENERAL BLURRING

GLAUCOMA

CATARACTS/DIABETIC RETINOPATHY
Falls Management Strategies for Low Vision

• Enhance lighting
• Reduce glare
• Increase contrast
• Utilize color
• Vision/optical aids
• Environmental modifications
• Regular eye exams
  • Utilize specialists
Falls Prevention

Development of Nursing & Activity-Based Functional Maintenance Programming (FMP).

• FMP developed and caregiver educated on both ADL and activity needs.
• Caregivers instructed on strategies to utilize in order to enhance management and improve both quality of life and functional independence.
Falls Management

- Transdisciplinary
- Impaired Mobility
- Impaired Nutrition
- Impaired Respiratory
- Impaired Physical Therapy
- Impaired OT
- Impaired SLP
- Cognitive/Communicative Limitations
- Breathing
- Impaired ADLs
- Medical Condition
- Nursing/Physician
- Social Services
- Dietary
- Activities
- Discharge Planning
- Recreation
## Evolution of a Transdisciplinary Team

<table>
<thead>
<tr>
<th>Unidisciplinary</th>
<th>• Processing a sound preparation and competency in one’s own discipline</th>
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<tbody>
<tr>
<td>Multidisciplinary</td>
<td>• Recognizing that other disciplines also have important contributions to make regarding intervention</td>
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<td>• Identifying that comprehensive services must be available</td>
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<tr>
<td>Interdisciplinary</td>
<td>• Working with other disciplines in the development of jointly planned programs.</td>
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<td>• Assuming responsibility for providing needed disciplinary services within one’s discipline</td>
</tr>
<tr>
<td>Transdisciplinary</td>
<td>• Committing oneself to teaching /learning/ working interactively with others service providers within and across traditional disciplinary boundaries</td>
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Falls Management Team

This team includes members from:

- Nursing (program champion)
- Therapy (program champion)
- Recreation Service Director (program champion)
- Social services
- Maintenance/Housekeeping
- Family
- Restorative
- Dietary
- Admissions
- CNA
Falls Prevention Team: An Integrated Approach to Falls Management

The Falls Management Team (FPT) is designed to provide a transdisciplinary approach to falls management in the long-term care facility.

Purpose of FPT is to:

• Prevent falls.
• Identify reasons for falls.
• Facilitate implementation of prevention strategies.
• Reduce falls
• Educate facility team, resident and/or caregivers
Getting Started

Each facility to select 3 program champions

- One from nursing, one from rehab, and the recreation services director
- Program champions
  - Develop facility systems in conjunction with ED/DNS
  - Provide education to the team
  - Participate in falls prevention meetings
  - Help coordinate program
  - Track success
Integration of Nursing, Therapy, and Recreation Service Director

- Involvement with the Falls Prevention Team
- Program champions attend the falls prevention meetings
  - Nursing, therapy and recreation share assessment results
  - The falls prevention team select several interventions to prevent or reduce falls
  - Therapy and restorative develop restorative FMP
  - Therapy and Recreation Service Directors develop activity-based FMP
  - Therapy and nursing develop ADL routine
Review Steps to Follow Provide Education to Each Discipline

• Nursing
  • Program champion
  • Restorative
  • CNA
• Rehab
  • Program champion
  • PT
  • OT
  • SLP
• Recreation Service Director
• Alzheimer's Care Directors
## Fall Prevention Movement Patterns

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</table>
| **1.** | **Look Up / Reach Up** | neck & trunk extension  
leaning backward  
shrugging shoulders |
| **2.** | **Reach High / Low**  
outside comfort zone | crossing midline  
trunk rotation  
“turn the other cheek”  
reaching forward toward the floor |
| **3.** | **Standing & Stepping**  
outside comfort zone | weight shifting side to side  
weight shifting back & forth  
feet far apart |
| **4.** | **Strengthening**  
**During Activity** | lean on arms  
extended standing time  
knee bends; support during single limb support |
Nursing

• Program champion
• Patient's nurse
• CNA
• Restorative nursing
Nursing

- Completes analysis/assessment S/P fall
- Review of medical symptoms
- Review of behavioral or communication issues
- Review of sleep habits and daily routine
- Assessment of toileting program
- Review of falls related trends
- Develops care plan
- Provides ongoing education for patient, staff, and family
CNA

- Report changes in condition that may impact falls
- Implement ambulation, ADL and exercise programs
- Implement cognitive stimulation activities as per Functional Maintenance Program (FMP) and care plan
- Maintain safe environment or environment as recommended as per FMP
Admissions or Social Services

- New admissions
  - Obtains information on history of falls from family and or hospital.
  - Provide information on history of falls to falls prevention team
  - Communicates to family regarding interventions for falls prevention
- Current residents that are at high risks for falls
  - Informs family on falls risks prevention strategies as needed
Restorative

• Implements patient-specific falls prevention programs
• Implement group falls prevention exercise programs and activities programs
• Communicates changes in condition
Rehab

- Steps to follow
  - Program champion
    - PT
    - OT
    - SLP
  - Treatment interventions
Program Implementation

• Review current program
• Review and analysis of related data
• Review current resident falls assessments
• Review and modification of falls prevention meeting
• Implementation of additional falls prevention strategies
• Develop effective method to communicate strategies to all staff as needed.
Falls Prevention Team

• This team meets 3-5 times per week (frequency depends on the size of the facility, the number of recurrent falls, and the number of new admissions)
• Agenda for meeting
  • New admissions to identify resident at higher risks for falls
  • Recent medication changes that may lead to falls
  • Recent falls to share assessment information and to determine intervention plan
  • Review of current interventions plans to determine revisions are indicated
• Note – Meeting should be brief
Environmental analysis; Consider location and the time of the fall. Note safety issues and implement modifications.

Medication analysis and adjustments

Review of Medical and nutritional status. Note date of last eye exam

Referral to PT, OT and or SLP
  • Allen assessment if patient has impaired cognition

Analysis of footwear

Implementation of a Restorative falls prevention program

Implementation of an activity-based program

Implementation of a bed or W/C positioning program

Development of a more structured environment

Establishment of an ADL routine and toileting program

Review of nighttime routine and related issues
Screening Residents to Determine Risk for Falls

- On Admission and Quarterly
  - Identify history of falls
  - Medication used and falls-related implications
  - Diagnosis and vital signs
  - Cognition
  - Vision and hearing
  - Continence level
  - Mobility status
  - Related behaviors
Care Plan

- Residents at high/medium risk
  - Develop specific goals/interventions related to risk factors
  - Transdisciplinary team should contribute to the development of the plan
Post-Fall Assessment

- Considerations for care plan process
  - Time
  - Location
  - Environment
  - Behavior
  - What was the resident doing before the fall?
  - Footwear
  - Vital signs
  - Falls-related risk factors
  - Laboratory results
  - Restraint –
    - Did a restraint contribute to the fall?
Care Plan

- Consider all factors
- Identify patterns
  - What time of day is the resident at higher risk forfalls?
- Identify possible causes
- Determine intervention strategies
- Review previously attempted interventions
- Modify your plan as indicated
Problem: Poor Sitting Posture

Why: Kyphosis

Causes:
- Arthritis
- Osteoporosis
- Lack of Muscle Tone
- Neurological Condition

What can be done:
- Review Dosage & Interaction
- Review medication
- Midmorning/afternoon naps
- Check positioning for comfort/reposition as needed
- Intellectual/social stimulation
- Activity program based on cognitive level
- Lateral Supports, contoured cushion
- Rehab program to restore trunk balance
- Activity based program
Falls

Physiological Factors
- Medication
- Unstable gait
- Low vision
- Cardiovascular insufficiency:
  - Syncope, MI
  - Orthostatis, TIA
  - Arrhythmia
  - Hypotension
- Infection
- Hypoglycemia

Psychological Factors
- Denial of impairment
- Depression

Environmental Factors
- Lighting
- Placement of furniture
- Spills
- Equipment

What can be done!
- Thorough medication review/evaluation
- Evaluate for assistive device
- Appropriate footwear
- Thorough physical assessment/treatment of underlying cause
- Activity based falls prevention programs
- Rehab program
- Encourage independence in other aspects of care
- Explore feelings, perceptions of resident
- Frequent observation
- Increase lighting
- Minimize furniture
- Provide clear path to door/bathroom
- Check equipment for safety
Facility Analysis
## Facility Analysis

### Fall Event Location:
- Found on floor
- Other
- Lost balance/dizzy
- Ambulating (with physician orders)
- Transfer (unassisted)
- Wheelchair
- Lowered to floor by staff
- Ambulating (without physician orders)
- Chair (regular/rocking)
- Transfer (assisted)

### Fall Location Description:
- Resident’s room
- Resident’s bathroom
- Corridor
- Other
- Resident Dining Room
- Resident Lounge
- Nursing Station
- Shower room/bathroom
- Outside area
- Activities room
Thank you!

Angela & Kevin
References

3. Aegis Therapies (updated 2017), Dementia 2: Beyond the Basics, Fort Smith Arkansas.
5. Aegis Therapies (2014) Low Vision Program
12. https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/SNFPPS/PDPM.html
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