Home Assessments – Going Beyond “Safe” to an Evidence-Based Practice Approach

Your Presenters

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Your Presenters

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- Associate Professor & Director
- Center for Aging Services Management
- School of Public Health
- University of Minnesota
- grant004@umn.edu
Upon completion of this session, attendees will be able to:

- Identify important components of a comprehensive home assessment for fall risk mitigation
- Utilize home environmental assessment findings to enhance OASIS-C1 accuracy
- Discuss implementation strategies to drive clinical service utilization decision-making
OASIS and the Home Assessment

<table>
<thead>
<tr>
<th>Item Intent</th>
<th>Data Sources / Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>M1800’s: ADLs and IADLs (M1800-M1910)</td>
<td>• Observation/demonstration is the preferred method</td>
</tr>
<tr>
<td></td>
<td>• Patient/CG interview</td>
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<tr>
<td></td>
<td>• Physical assessment</td>
</tr>
<tr>
<td></td>
<td>• Environmental assessment</td>
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</table>

Identifies the patient’s ability to tend to personal hygiene needs, excluding bathing, shampooing hair, and toileting hygiene. The intent of the item is to identify the patient’s ABILITY, not necessarily actual performance. “Willingness” and “adherence” are not the focus of these items. These items address the patient’s ability to safely perform grooming, given the current physical and mental/emotional/cognitive status, activities permitted, and environment. The patient must be viewed from a holistic perspective in assessing ability to perform ADLs. Ability can be temporarily or permanently limited by:
- physical impairments (for example, limited range of motion, impaired balance)
- emotional/cognitive/behavioral impairments (for example, memory deficits, impaired judgment, fear)
- sensory impairments, (for example, impaired vision or pain)
- environmental barriers (for example, accessing grooming aids, mirror and sink).

M1800’s

- M1800 – Grooming
- M1810 & M1820 – Dressing
- M1830 – Bathing
- M1840 – Toilet Transfer
- M1845 – Toileting Hygiene
- M1850 – Transferring
- M1860 – Ambulation
M1880 – Meal Preparation

FOOD
DOES
NOT FLY!!

M2020 – Oral Med Management

Safe & Consistent Administration

Knowledge:
What?
When?

Function:
Where?
How?
M1200 - Vision

Identifies the patient’s ability to see and visually manage (function) safely within his/her environment, wearing corrective lenses if these are usually worn.

M2102 – Types and Sources of Assistance

<table>
<thead>
<tr>
<th>Type of Assistance</th>
<th>No assistance needed - patient is independent or does not have needs in this area</th>
<th>Non-agency caregiver(s) currently provide assistance</th>
<th>Non-agency caregiver(s) need training/supportive services to provide assistance</th>
<th>Non-agency caregiver(s) are not likely to provide assistance OR it is unlikely if they will provide assistance</th>
<th>Assistance needed, but no non-agency caregiver(s) available</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) ADL assistance (for example: transfer, ambulation, bathing, dressing, toileting, eating/feeding)</td>
<td>☐ 0</td>
<td>☐ 1</td>
<td>☐ 2</td>
<td>☐ 3</td>
<td>☐ 4</td>
</tr>
<tr>
<td>b) IADL assistance (for example: meals, housekeeping, laundry, telephone, shopping, finances)</td>
<td>☐ 0</td>
<td>☐ 1</td>
<td>☐ 2</td>
<td>☐ 3</td>
<td>☐ 4</td>
</tr>
<tr>
<td>c) Medication administration (for example: oral, inhaled or injectable)</td>
<td>☐ 0</td>
<td>☐ 1</td>
<td>☐ 2</td>
<td>☐ 3</td>
<td>☐ 4</td>
</tr>
<tr>
<td>d) Medical procedures/treatments (for example: changing wound dressing, home exercise program)</td>
<td>☐ 0</td>
<td>☐ 1</td>
<td>☐ 2</td>
<td>☐ 3</td>
<td>☐ 4</td>
</tr>
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</table>
Activities that may be necessary due to cognitive, functional, or other health deficits. May range from calls to remind the patient to take meds, in-person visits to ensure that the home environment is safely maintained, the need for the physical presence of another person in the home to ensure that the patient doesn’t wander, fall, or for other safety reasons.
Current State of Home Assessments

How Do We Assess?

Are we comparing one patient home to another?
How Do We Assess?

Are we REALLY looking at the risk areas present in any home?

How Do We Assess?

Are we using a standardized approach?
Options for Home Health

Comprehensive Home Assessment

- What’s the purpose of home assessments?
- What key features and environmental attributes need to be assessed to reduce the risk of falls?
- What tools and resources are out there?
- What are pros and cons of different systems?
- How does a computerized system for fall risk mitigation work?
Purpose of Home Assessments

• FALL RISK MITIGATION
• ALZHEIMER’S CAREGIVER SUPPORT
• RECOVERY AND RECUPERATION
• AGING IN PLACE SUPPORT
• VISUAL IMPAIRMENT

Key Features of Rooms

↑ Bathroom:  ↑ Stairs:
• Toilet        • Treads & Risers
• Tub          • Light Switch
• Shower       • Color Contrast
• Flooring     • Hand Rails
• Lighting     • Lighting
What environmental attributes should be assessed for fall risk mitigation?

- Inadequate task lighting in the kitchen or bathroom
- Poor ambient lighting in the living room
- Lack of visual clarity in hallways
- Trip hazards in the entry or stairs
- Slippery floors in kitchens and bathrooms (especially when wet)

What environmental attributes should be assessed for fall risk mitigation?

- Inappropriate furnishing in living areas
- Poorly specified equipment or adaptive devices in the home
- Anthropometric factors (e.g., a person’s height, upper or lower reach range and use of assistive devices)
What tools and resources are out there?

iPad Assessment & Web-based Reporting

Conventional Tools

Evidence-Based Evaluation
Problems, Needs & Strategies

Pen & Pencil
Checklists with Observations

What are pros and cons of different systems?

<table>
<thead>
<tr>
<th>iPad Assessment &amp; Web-based Reporting</th>
<th>Conventional Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer-based assessment &amp; reporting process</td>
<td>Pen &amp; paper-based assessment process with limited reporting capabilities</td>
</tr>
</tbody>
</table>
What are pros and cons of different systems?

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<tr>
<th>iPad Assessment &amp; Web-based Reporting</th>
<th>Conventional Resources</th>
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<tbody>
<tr>
<td>Automated decision support &amp; reporting system that is efficient</td>
<td>Limited decision support system that is labor intensive and inefficient</td>
</tr>
</tbody>
</table>

What are pros and cons of different systems?

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<tr>
<th>iPad Assessment &amp; Web-based Reporting</th>
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<tr>
<td>Highly scalable systems requiring minimal training</td>
<td>Non-scalable systems that may require extensive training</td>
</tr>
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<td>iPad Assessment &amp; Web-based Reporting</td>
<td>Conventional Resources</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>Objective, scientifically valid assessments of environmental risks using state-of-the-art measurement tools (e.g., digital light meter, digital reflectance meter, and digital slip meter)</td>
<td>Subjective, often non-validated (i.e., unreliable) observations of environmental risk factors</td>
</tr>
</tbody>
</table>

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<th>iPad Assessment &amp; Web-based Reporting</th>
<th>Conventional Resources</th>
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<tbody>
<tr>
<td>Decision support system with multiple solutions for environmental solutions</td>
<td>Decision support with limited (or unspecified) options for environmental solutions</td>
</tr>
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### What are pros and cons of different systems?

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<th>iPad Assessment &amp; Web-based Reporting</th>
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<tr>
<td>Built-in cost estimates of different options for environmental modifications to help end-users evaluate likely cost-effectiveness</td>
<td>Little or no attention to cost-estimates or potential cost-effectiveness of environmental modifications</td>
</tr>
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### What are pros and cons of different systems?

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<tr>
<td>Dynamic &amp; open systems that can be updated in real time as new technological solutions become available</td>
<td>Static &amp; closed systems that cannot be updated in real time, often lacking in specific recommendations for new technological solutions</td>
</tr>
</tbody>
</table>
Defining Risk

Behavior (Falls) = f (Environment) + f (Person) + f (Interaction of Person x Environment)

Computer System for Fall Risk Mitigation
Computer System for Fall Risk Mitigation

Impaired awareness of limb or joint
Impaired dynamic balance
Impaired sitting balance
Impaired standing balance
Vertigo/dizziness
Unsafe/unstable walking

Choose Option...
Yes No
Yes No
Yes No
Yes No
Yes No
Yes No

Computer System for Fall Risk Mitigation

Is the floor or any floor coverings damp?
Is there clutter (cords, clothes, towels, etc.) on the floor?
If the floor in poor condition?
Is the flooring made from a material that is slippery?
Is the floor surface clean and free of dust and other material?
Do the rugs in this room/area have slip-resistant backing that prevents the rugs from
Computer System for Fall Risk Mitigation

Preventing falls in the home of
Mary Ayers
423 Willow Rd. - Waukesha, WI 54405

ABOUT THIS REPORT

An assessment was completed of your home on Friday, September 11, 2015, by Teresa Snow.

Based on your personal needs, the information gathered during our assessment, and from listening to you and your family, we can now provide you with recommendations and options to enable you to live safer at home.

This report identifies the environmental risks and hazards you can address in your home to reduce your risk of falling. It also lists the aids and devices best for improving your quality of life.

Following these recommendations can enhance your safety and independence at home.

Computer System for Fall Risk Mitigation

<table>
<thead>
<tr>
<th>RISK</th>
<th>RECOMMENDATIONS AND OPTIONS</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unsecure toilet seat can lead to falls when sitting on or transferring on/off toilet</td>
<td>1. Replace and secure toilet seat to toilet base</td>
<td>3</td>
</tr>
<tr>
<td>Lack of a night light can make it difficult to see obstacles in the dark, increasing fall risk</td>
<td>1. Install night light</td>
<td>4</td>
</tr>
<tr>
<td>Low illumination in the room can lead to risk of falls</td>
<td>1. Replace light bulb in this room 2. Replace absorbent paint, wallpaper, tile, or tiles with material that has LRV &gt; 30%</td>
<td>4</td>
</tr>
<tr>
<td>Tub/shower floor that is slippery or unclean can increase risk of falling</td>
<td>1. Add slip resistant slip to floor of tub/shower 2. Place slip resistant tub mat to floor of tub/shower 3. Add slip resistant coating to surface of tub/shower</td>
<td>5</td>
</tr>
<tr>
<td>Lack of support while showering or bathing can increase risk of falls</td>
<td>1. Install portable shower chair 2. Mount a grab bar on the tub/shower control wall to support the patient while seated and showering 3. Install new adjustable-height shower head 4. Install a holder for the hand-held shower head that can be easily reached while the patient is seated</td>
<td>7</td>
</tr>
<tr>
<td>Damp flooring in the bathroom can be slippery, increasing fall risk</td>
<td>1. Purchase a dehumidifier and keep cleanliness</td>
<td>8</td>
</tr>
<tr>
<td>Flooring that is slippery can increase fall risk</td>
<td>1. Have a contractor apply a coat of Johnny Grip 2. Replace flooring</td>
<td>9</td>
</tr>
<tr>
<td>Towel racks that are not grab bar rated do not provide adequate balance support increasing fall risk</td>
<td>1. Install new or replace old towel rack with one that is grab bar rated</td>
<td>10</td>
</tr>
<tr>
<td>Uncomfy floor surfaces can be slippery, increasing fall risk</td>
<td>1. Clean the floors</td>
<td>11</td>
</tr>
</tbody>
</table>
Computer System for Fall Risk Mitigation

ABOUT THIS ROOM

Up to 80% of falls occur in the bathroom and approximately 200,000 Americans are treated in emergency rooms for bathroom-related injuries each year. Bathrooms have hard, slippery surfaces and few dependable things to grasp onto, greatly increasing the chances for falling. Most falls occur while getting in and out of the shower, or on and off the toilet, and using towel bars, sink tops and other objects to support balance. The recommendations below will be key to reducing your risk of falling.

**Risk:** Unsecured toilet seat can lead to falls when sitting on or transferring on/off toilet

Toilet can be addressed with the following recommendation(s):

1. Replace and secure nuts/bolts attaching toilet seat to toilet base

Replace and secure nuts/bolts attaching toilet seat to toilet base

Toilet seats that are not securely attached to the toilet bowl can move or shift when using the toilet, putting you at risk.

- Contractor recommended
- Estimate: 35 hours
- Hourly rate and estimate normally provided

**RECOMMENDATION**

Moving about rooms that do not have enough light can make it difficult to see obstacles and lead to trips or falls. It is important to replace all light bulbs to create more light.

**RECOMMENDED VENDOR:** Fixx LED Dimmable General Purpose Light Bulb, Manufacturer number 6509776. Can be found at http://www.leadlightlight.com.

1. Replace light bulbs in this room

Resurface the wall (paint, wallpaper, tile, or stickers) with material that has LRV > 56%

The color of wall paint can help enhance the amount of light in a room, making it safer and easier to see when moving around the room.

**RECOMMENDED VENDOR:** Can be found at http://www.leadlightlight.com

2. Resurface the wall (paint, wallpaper, tile, or stickers) with material that has LRV > 56%

Risk: Tub/shower flooring that is slippery or unclean can increase risk of falling

Tub with shower can be addressed with the following recommendation(s):

1. Add slip-resistant strip to floor of tub/shower

- Contractor recommended
Computer System for Fall Risk Mitigation

Add slip resistant strip to floor of tub/shower
- Tub/shower surfaces are slippery when dry or wet. Non-slip adhesive flooring strips improve traction and prevent slipping when on the tub/shower.
- **Recommended Vendor:** Non-slip safety strips Manufacturer number 98180230. Can be found at the URL: http://www.lisa.com/DPQP

Place slip resistant tub mat to floor of tub/shower
- Tub flooring is slippery when dry or wet. Placing a slip-resistant bath mat on tub floor will improve traction and prevent slipping when bathing in the tub/shower.
- **Recommended Vendor:** Non-slip, non-skid bathtub mat. Manufacturer number 98180230. Can be found at the URL: http://www.lisa.com/DPQP

Add slip resistant coating to surface of tub/shower
- Tub/shower flooring is slippery when dry or wet. Slip-resistant adhesive flooring strips or coating will improve traction and prevent slipping while bathing. Read product instructions before applying.
- **Recommended Vendor:** Anti-slip coating. Manufacturer number 98180230. Can be found at the URL: http://www.lisa.com/DPQP

Computer System for Fall Risk Mitigation

Risk: Lack of support while showering or bathing can increase risk of falls

- Tub with shower can be addressed with the following recommendation(s):
  1. Install Portable Shower Chair
  2. Mount a grab bar on the tub/shower control wall to support the patient while seated and showering.
  3. Install a new adjustable-height shower head.
  4. Install a holder for the hand held shower head that can be easily reached while the patient is seated.

Install Portable Shower Chair
- **Recommended Vendor:** Drive Bath and Shower Seat with Calf Support Manufacturer number 98180230. Can be found at the URL: http://www.lisa.com/DPQP

Mount a grab bar on the tub/shower control wall
- **Recommended Vendor:** Anti-slip grab bars. Manufacturer number 98180230. Can be found at the URL: http://www.lisa.com/DPQP

- **Additional Requirements:**
  - Minimum weight: 200 lbs
  - Average price: $90.99
  - Includes durable, non-slip grip
  - Includes support for patient with extra-long arms
  - Weight capacity: 300 lbs