Implementing a Comprehensive Functional Model of Care in Hospitalized Older Adults

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ABOUT CHRISTIANA CARE

- Based in Wilmington and Newark, Delaware
- Not-for-profit, teaching center
- Level 1 Trauma Center
- Christiana Hospital, suburban (780 beds)
- Wilmington Hospital, city (291 beds)
- 2 ACE units
- Visiting Nurse Association (VNA) - Home Care statewide
- Satellite offices (Internal Medicine/ Family Medicine/ Pediatrics)
- NICHE member since January 2001

Project Goal

- To develop a model of care to promote physical function in hospitalized older adults
- Funded by The Practice Change Fellowship awarded by the University of Colorado

PRACTICE CHANGE FELLOWS
LEADERS IN GERIATRIC CARE
Practice Change Fellowship

- Two-year program aimed at building leadership capacity among nurses, physicians, and social workers
- Receive $90,000 and the support of mentors to further develop leadership skills and to complete a project aimed at implementing a new geriatric service line or aging program.
- Supported by the Atlantic Philanthropies and the John A. Hartford Foundation, and is under the direction of
  - Eric A. Coleman, MD, from the University of Colorado
  - Nancy Whitelaw, PhD, from the National Council on Aging

Interdisciplinary Team

- Nurse Manager
- Geriatrician
- CNS in Gerontology
- Educator
- Case Manager
- Social Worker
- Physical Therapist
- Occupational Therapist
- Administrative Assistant
- Maintenance
- Marketing

Function Team Members

- Denise Lyons, G-CNS
- Vickie Schad, NM
- Linda Sydnor, G-CNS
- Helen Harrison, PCC
- Lisa Arnold, SDS
- Patricia Curtin, MD
- 6A’s Quality & Safety Team
- Staff on 6A
- Kathy Hidalgo, PT
- Julie Sammons, OT
- Pam Callahan, SW
- Maggie Bartash, SWA
- Christine Achuff, Adm. Assistant
- Ruth Mooney, PhD
- Marissa Merson, University of DE student
The Problem

- Functional decline during hospitalization is an important clinical problem with potential long lasting adverse outcomes in older adults.
- Research has shown that functional loss is often avoidable and nursing interventions can have a significant impact on preventing the decline.

Functional Decline

- Decline in ability to perform one or more basic activities of daily living (ADLs)
  - ADLs – bathing, toileting, continence, transferring, dressing & feeding
- Leading complication in older adults
- Rates range from 15-60% during hospitalization
- Affects 1/3 of hospitalized older adults with an acute medical diagnosis
- Only ½ recover abilities 3 months after discharge
Consequences of Functional Decline:
- Loss of independence
- Diminished quality of life
- Increased risk for falls
- Decreased socialization
- Higher mortality rates
- Longer lengths of stay
- Greater resource consumption & costs
- Increased risk of nursing home placement
- Increased caregiver burden

Risk Factors for Functional Decline
- Cognitive impairment
- Lower pre-admission ADL scores
- Advanced age
- Depression
- Multiple co-morbidities

Significance
- Functional status is a dynamic process impacted by
  - Motivation
  - Physical capacity
  - Illness
  - Cognition
  - Sensory capacity
  - Environment
- Functional status is a sensitive indicator of health and decline is often the initial symptom of acute illness
Contributing Factors during Hospitalization

- Acute illness
- Medications
- Pain
- Bedrest
- Physical restraint use
- Urinary catheters, IV’s, tubes, equipment
- Changes in environment and/or personal routine
- Patient, family, and staff attitudes

Current Care vs. Function Focused Care

- **Current care** – completing tasks for older patients or limiting the amount of activity they need to perform
- **Function focused care** – philosophy of care in which nurses acknowledge older adults’ physical and cognitive capabilities and potential with regard to function and engage them in functional and physical activities by integrating activities into routine care

Normal aging changes often cause loss of function

Medical illness can cause additional declines in function

Patient discharged to nursing home

Hospitalization causes even greater declines in function
Why bedrest is NOT the “best” thing for our patients?

- Bedrest affects every system in body
- Each day of bedrest requires 3 - 5 days to regain strength
- Harder for older adults to reverse effects of bedrest

Effects of Bedrest

- Older adults are often at low end of their threshold for climbing steps to get into their home, getting in and out of the tub, getting up from the toilet, and even getting out of bed
- Even a 10% loss of strength may make the difference between being independent and becoming dependent on others

What are we trying to do?

- Break the cycle of functional decline
- Promote and maintain the functional abilities of our older patients during their hospital stay
Promote Function

Being able to achieve a 90 degree angle at the heel is necessary for standing and more range is needed for walking.

Assessments

- Standardized scale for ADLs
  - The Barthel Index
- Cognition/ Mental status
  - CAM
- Ambulatory status
  - Egress test
- Sensory status
  - Vision/ hearing
- Social function
  - Resources

Barthel Index

FEEDING
0 = unable
5 = needs help cutting, spreading butter, etc., or requires modified diet
10 = independent

BATHING
0 = dependent
5 = independent (or in shower)

GROOMING
0 = needs to help with personal care
5 = independent face/hair/teeth/shaving (implements provided)

DRESSING
0 = dependent
5 = needs help but can do about half unaided
10 = independent (including buttons, zips, laces, etc.)

BOWELS
0 = incontinent (or needs to be given enemas)
5 = occasional accident
10 = continent

BLADDER
0 = incontinent, or catheterized and unable to manage alone
5 = occasional accident
10 = continent

TOILET USE
0 = dependent
5 = needs some help, but can do something alone
10 = independent (on and off, dressing, wiping)

TRANSFERS (BED TO CHAIR AND BACK)
0 = unable, no sitting balance
5 = major help (one or two people, physical), can sit
10 = minor help (verbal or physical)
15 = independent

MOBILITY (ON LEVEL SURFACES)
0 = immobile or < 50 yards (150ft)
5 = wheelchair independent, including corners, > 50 yards (150ft)
10 = walks with help of one person (verbal or physical) > 50 yards (150ft)
15 = independent (but may use any aid; for example, stick) > 50 yards (150ft)

STAIRS
0 = unable
5 = needs help (verbal, physical, carrying aid)
10 = independent
Confusion Assessment Method

A positive CAM requires the presence of 1 & 2 and either 3 or 4

1. Acute onset and fluctuating course - Does the patient have evidence of an acute change in mental status from baseline? Did the abnormal behavior fluctuate?

2. Inattention - Did the patient have difficulty focusing attention? (easily distractible, difficulty keeping track of what was being said)

3. Disorganized Thinking - Was the patient's thinking disorganized or incoherent? (rambling or irrelevant conversation, unclear or illogical flow of ideas, or unpredictable switching from subject to subject)

4. Altered Level of Consciousness - Rate patient's Level of Consciousness (vigilant/hyperalert, lethargic, stupor/difficult to arouse, coma)


Strategies to Promote Function

1. Encourage active movement
2. Encourage self care activities
3. Address safety needs
4. Eliminate/reduce immobilization
5. Promote communication

Encourage Active Movement

- Maintain patient’s daily routine
- Educate patients & families about the value of independent functioning & consequences of decline
- Encourage activity using staff, family, & volunteers
- Obtain PT/OT consult
Encourage Self Care Activities

- Dressing
- Eating
- Showering
- Toileting
- Grooming
- Oral care

Address Safety Needs

- Personal items within easy reach
- Assistive devices at bedside
- Well fitting, safe footwear
- Clear pathways with sufficient lighting
- Review medications to reduce side effects associated with falls
- Supervision during toileting

Eliminate/ Reduce Immobilization

- Assess and treat pain
- Minimize bed rest
- Eliminate/minimize physical restraint use
- Minimize use of catheters, tubes, and other equipment
- Review medications to reduce side effects that sedate
- Screen for depression
**Promote Communication**

- Ensure ongoing communication among all team members & family
  - Report
  - Rounds

**The Project**
Interventions

- Adopted standardized nursing interventions to prevent functional decline
- Provided comprehensive education for the staff
- Incorporated a functional assessment tool into the nursing assessment process (Barthel Index tool)
- Formalized the current walking and mobility (WAM) program
- Developed a WAM FYI sheet for patient/family education

Interventions

- Implemented a walking area on the unit with distance markers
- Incorporated function into rounds/report
- Made available hearing amplifiers/full page magnifying sheets for patient use
- Purchased diversional activity products
- Developed screen savers focusing on walking and mobility for the portal
- Developed posters for the unit focusing on walking and mobility
- Purchased pedometers for staff & patients

### Nursing Interventions to Prevent Functional Decline

<table>
<thead>
<tr>
<th>Interventions</th>
<th>Implementation Details</th>
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<tbody>
<tr>
<td>Maintain individual's daily routine</td>
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<tr>
<td>Assess functional decline (Barthel Index)</td>
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<tr>
<td>Assess cognition (CAM)</td>
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<tr>
<td>Ensure adequate lighting</td>
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<tr>
<td>Have glasses and hearing aids in place/ use hearing amplifier/magnifying sheet</td>
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<tr>
<td>Adapt communication for person with cognitive impairment: Cue/redirect</td>
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<td>Use task segmentation as needed during ADLs</td>
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<td>Have patient/family complete an “All About Me” poster</td>
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<td>Assess &amp; individualize activities the patient enjoys (music/reading)</td>
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<td>Communicate functional decline to other team members</td>
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<td>Avoid inappropriate medications for the elderly</td>
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<td>Avoid sleeping medications/initiate sleep protocol</td>
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<td>Allow for open visitation by family/friends</td>
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<tr>
<td>Assess &amp; treat for pain</td>
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<td>Encourage active participation while in hospital</td>
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<td>Orient to environment</td>
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<td>Address bed rest orders</td>
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<td>Ambulate patient at least 3 times daily around center desk</td>
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<td>Increase patient activity as tolerated</td>
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<td>Request that family bring in supportive footwear</td>
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<td>Use assistive devices (walkers, canes)</td>
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<tr>
<td>Encourage active range of motion</td>
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<tr>
<td>Maintain clear walking paths in hallways and in patient’s rooms</td>
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<tr>
<td>Recommend PT/OT consult as needed</td>
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<tr>
<td>Initiate WAM program</td>
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<tr>
<td>Give patient/family WAM FYI sheet</td>
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WAM Protocol

Program on the 6A ACE unit to identify patients who would benefit from a walking and mobility program.

PURPOSE: The purpose of this program is to help decrease the effects of immobility in hospitalized older patients.

WAM: A walking and mobility program for hospitalized older patients
   a) Ambulating with staff help, as tolerated or maintain baseline functional status
   b) Sitting in chair, out of bed for all meals
   c) Encourage to maintain transfer activities of daily living (ADL) by maintaining function

PROTOCOL:
   a) Obtain and evaluate activity order (be sure to question all bedrest orders)
   b) Obtain and assess baseline mobility status
   c) Perform Egress test
   d) Develop individualized WAM program for patients who qualify and document on the plan of care
      (risk for impaired physical mobility related to level of assistance)
   e) Explain program to patient and family/give FYI sheet
   f) Update nursing profile to reflect WAM program
   g) Document WAM on the back of the NSG flowsheet under Pt Care/Plan section
   h) Update communication board in patient’s room
   i) Communicate to interdisciplinary team via rounds & report

WAM Button & Pedometer

Walking Measurements
Diversional Activities

Function Campaign

Screen Shots
Screen Shots

Encourage movement for older patients:
• Dressing
• Liting
• Showering
• Toileting
• Grooming
• Oral care
You can help prevent a patient's loss of function.

Results

This was a convenience sample of 866 older adults (average age 82) with
- 391 patients in the pre-intervention group
- 475 patients in the post-intervention group
Data collected before (February, March & April 2011) &
after (September, October & November 2011)
project implementation on
◆ Fall rate
◆ Length of stay (LOS)
◆ 30-day readmission rate
◆ # of PT/OT consults

![Average LOS per month](chart.png)

Intervention (Average = 5.3) (Average = 4.8) p=0.037
30 day re-admit
Pre-metrics (Average = 21.7%)  Post-metrics (Average = 14.9%)  p=0.008

Fall Rate
Pre-metrics (Average = 4.5)  Post-metrics (Average = 1.8)  p=0.275

PT Consults
Pre-metrics (Average = 20)  Post-metrics (Average = 25)
Analysis

- Decrease in average LOS: Average LOS decreased by 0.5 (statistically significant).
- Cost savings: The estimated cost savings associated with the LOS reduction during the three-month post-interventions period was $200,000.
- Reduction in readmission rate: The 30-day readmission rate decreased by 35% (statistically significant).
- Decrease in fall rate: Fall rate decreased by 60%.
- No change in PT consults: The average number of PT consults per month did not change.
- Decrease in OT consults: The average number of OT consults decreased.

Survey monkey sent to staff 9 months after implementation of project
60% response return rate
Testimonial of the Project

- I have seen increased awareness in the staff concerning the function/mobility needs of the patients. I believe they have a clearer understanding of the importance of this piece of their care and how this impacts the patient’s future; physically, mentally, socially and financially.
- I believe using a tool to determine the patient’s functional ability prior to admission is essential and helps them to start thinking about this at the time of admission as opposed to discharge time, as was traditionally seen.

Linda Sydnor, MSN, RN, GCNS, BC
Geriatric Clinical Nurse Specialist
ACE Unit/ Christiana Hospital

Path Forward/ Next Steps

- Continue to follow this model of care to promote function in hospitalized older adults on the ACE unit
- Pilot the Tailored Activity Program for the Elderly (TAPE) program on the ACE unit
- Replicate project on all medical units over the next year

Lessons Learned

- Focused awareness and education translates into better care for older adults and improved outcomes
- Implementation of this project has had a significant impact on length of stay, 30-day readmission rate and fall rate
- Empowering staff can make a difference in the care of older adults
Summary

- Do "with" the patient instead of "for" the patients
- Hospitalization should improve ability to function, not worsen it!

QUESTIONS!