CAHO Move On
at The Ottawa Hospital

Compassionate People. World-Class Care.
Des gens de compassion. Des soins de calibre mondial.
Mobilization of Vulnerable Elders in Ontario ARTIC Project
THE DANGERS OF GOING TO BED

BY

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"...rest in bed is anatomically, physiologically and psychologically unsound. Look at a patient lying long in bed. What a pathetic picture he makes! The blood clotting in his veins, the lime draining from his bones, the scybala stacking up in his colon, the flesh rotting from his seat, the urine leaking from his distended bladder and the spirit evaporating from his soul."
Council of Academic Hospitals of Ontario

Mobilization of Vulnerable Elders in Ontario (MOVE ON)
ARTIC (Adopting Research to Improve Care)Project
Who is CAHO?

• The Council of Academic Hospitals of Ontario is the association of Ontario’s 24 academic hospitals and their research institutes. CAHO provides a focal point for strategic initiatives on behalf of our members.

• As research intensive hospitals, CAHO members are fully affiliated with a university medical or health sciences faculty.
CAHO Members
CAHO Strategic Plan 2010-2015

Vision:
Improving lives for a stronger Ontario through the integration of health research, education, and specialized care.

Mission:
As key partners in the health care system, the CAHO community will harness our collective research and innovation strengths to advance world-leading patient care and a sustainable health care system.

Values:
• Leadership
• Collaboration
• Discovery
• Quality

Strategic Foci:
• Enable the rapid movement of research evidence into practice to improve quality
• Advance the stability of and investment in the health research enterprise in CAHO hospitals
Challenge: Ontario has yet to realize the full potential of sharing best practices and systematizing efforts to move research evidence into practice to improve quality & patient care.

Goal: CAHO’s ARTIC program creates the pathway, in our own backyard, to systematically move evidence-based research into practice.

CAHO’s ARTIC Program creates the pathway to move research into practice
CAHO ARTIC Program: Walking the Talk

- Adopting Research to Improve Care (ARTIC) Program is aimed at moving research evidence from the bench to the bedside to drive quality and improve patient care.

- 2010/11 CAHO ARTIC Projects:
  - HandyAudit
  - Canadian C-Spine Rule

- 2011/12 CAHO ARTIC Projects:
  - Mobilization of Vulnerable Elders in Ontario (MOVE ON)
  - Antimicrobial Stewardship Program (ASP)

- ARTIC began as a self-funded initiative and is now supported by the MOHLTC ($6.3M / 3 years)
  - Steering Committee includes participation of MOHLTC, Health Quality Ontario and CIHR
Project 1: HandyAudit™ to measure and improve hand hygiene compliance

- **CAHO HandyAudit™ ARTIC Project**, facilitated the adoption of a PDA device that records and reports on hand hygiene behaviours of care providers, replacing the current paper based auditing system.

- The HandyAudit™, developed by researchers at the Toronto Rehabilitation Institute (UHN), increases the accuracy of auditing and enables better comparisons, both within and between institutions.

- This project was adopted in 16 hospitals and was shown to increase the reliability of mandatory hand hygiene auditing and reduce the costs associated with the process.
Project 2: CCR to address wait times in emergency departments

- **CAHO Canadian C-Spine Rule (CCR) ARTIC Project** is facilitating the adoption of a decision support tool, developed at The Ottawa Hospital, allowing nurses to remove a patient’s cervical collar without the need for an x-ray.

- CCR completed testing for accuracy, reliability and safety amongst ED triage nurses, resulting in decreased patient immobilization and reduced burden on the hospital.

- Currently, 9 hospitals are participating in CAHO’s Canadian C-Spine Rule ARTIC Project.
Project 3: Antimicrobial Stewardship Program (ASP) in Intensive Care Units

• **CAHO ASP Project** will establish a program in intensive care units that optimizes the use of antimicrobials to improve patient outcomes while minimizing antimicrobial resistance and costs.

• Led by the Mount Sinai and UHN Antimicrobial Stewardship Program team, this project is being adopting across 12 CAHO hospitals.
Project 4: Mobilization of Vulnerable Elders in Ontario (MOVE ON)

- **CAHO MOVE ON ARTIC Project** will implement and evaluate the impact of an evidence-based strategy to promote early mobilization and prevent functional decline in older patients admitted to acute care facilities in Ontario.

- Led by researchers from St. Michael’s Hospital and Sunnybrook Health Sciences Centre, this project will implement a proven inter-professional mobilization strategy across 14 CAHO hospitals.
Why MOVE ON?
Consider Mrs. L

• 85 yr old woman with mild dementia, urinary incontinence who had a fall
• She was referred to medicine for admission because of concerns about her fall risk and safety
• She was in the ER for 3 days because there was no inpatient bed, became deconditioned and developed a urinary traction infection secondary to a catheter
• She was discharged back to her RH from the ER
Mrs. L

- Her antibiotics didn’t get continued on transfer
- She developed urinary retention and was transferred back to acute care
- She was in the ER for an additional 2 days and became further deconditioned
- She was noted to be delirious and was subsequently admitted to the ward –
  - Can she go back to the RH or does she now need more care
Patients aren’t mobilized in hospital

- Hospitalised older adults who were ambulatory during the 2 weeks prior to admission spent a median of 43 minutes per day standing or moving (JAGS 2009;57:1660-5.)

- Without mobilization, elderly patients lose 1 to 5% of muscle strength each day (Annals Int Med 1993;118:219-23.)

- 1/3 of older adults develop a new disability in an activity of daily living during hospitalisation
  - And half of these are unable to recover function (JAGS 2003;51:451-8)
Academic hospitals are no better

• Data from observations on inpatient units in academic hospitals in Toronto found
  – Less than 30% of patients were mobilized regularly in hospital
Is it feasible to mobilize frail older patients on medical units?
Early mobilization works!

- Early Mobilization:
  - Decreases length of stay (absolute difference of 1.1 days [95% CI 0 to 2.2 days])
  - Shortens duration of delirium (median of 2 days versus 4 days)
  - Improves return to independent functional status (odds ratio 2.7 [95% CI 1.2 to 6.1])
  - Decreases rate of depression (odds ratio 0.14)
  - Increases rate of discharge to home (26.5% vs. 2.4%)
  - Decreases hospital costs by $300/day

Potential solution

MOVE ON
Goals of intervention

1. Encourage mobility three times a day
2. Mobilization should be progressive and scaled
3. Mobility assessments should be implemented within 24 hours of the decision to admit
4. Interprofessional team collaboration
Returning to Mrs. L

• How could this have been different?
  – She was assessed for mobility and functional status in ER
  – Her foley catheter was discontinued immediately as were her IV
  – She was encouraged to mobilise with her family and the care team
  – She was given a chair in ER so she could sit up for meals etc.
  – She returned home after a brief admission
Hospitalized seniors lose independence in ADL

Covinsky KE et al. JAGS 2003;51:451

worse than baseline n=769
MOVE ON:
Mobilization Of Vulnerable Elderly In Ontario

OBJECTIVE: To implement and evaluate the impact of an evidence-based strategy to promote early mobilization and prevent functional decline in older adults admitted to hospitals in Ontario.
Some numbers to consider:

In Ontario, seniors account for:
- 19.5% of ED visits
- 56% of acute hospital days
- 83% of acute ALC days

Once hospitalized:
- On average, only 43 minutes/day standing or moving (Brown et al., 2009)
- \( \frac{1}{3} \) develop a new disability in an ADL; \( \frac{1}{2} \) never recover the lost function (Covinsky et al., 2003)
- 1 – 5% mass/strength lost /day when not mobilizing (Covinsky et al., 2003)
- Only \( \frac{1}{3} \) of admitted seniors are mobilized regularly (B. Liu, 2011)
HOSPITALS:  
Great place to be when you’re really sick but …

Hospitalization = Immobility

Why?

- The hospital environment discourages mobility & exacerbates disorientation
- Mobility is restricted and mobility orders unclear
- Dependence on staff is enforced

Covinsky et al: JAMA Oct 26;2003, 306(16); 1782

And then factor in intrinsic factors: staffing, processes/protocols, D/C destinations, prioritization, waiting and waiting and waiting…
Phase 0 – Planning (Completed)

- Complete and submit Ethics Application; (Approval received October 5th, 2012)
- Engage key stakeholders
- Create local MOVE ON work group
- Select patient population: 20 A1; 24:B5
- Hire and train Research and Education Coordinators
Phase 1 – Pre-Intervention

• Duration: 10 weeks (October 15 – December 21)

• Conduct audits 2x a week for 10 weeks

• Conduct chart reviews and coordinate data from decision support

• Conduct focus groups – to help tailor a TOH strategy (CM, educators, front line staff and physicians)

• Adapt education materials to meet TOH needs; online modules
Focus Groups

BARRIERS TO MOBILIZING PATIENTS:

STAFF:
- Not enough staff
- Not enough time
- Too many competing “new initiatives”
- Staff not working to full scope: “not my job”
- Reliance on one or two team members to mobilize patients
- Inconsistent approach of staff to mobilizing patients
- Monday – Friday; 8 – 4 approach to mobilizing patients
- Withdrawing all mobility events if the patient has a setback
- Morale: “things are never going to change…”
ENVIRONMENT:

• Space in the patients room
• Obstacles in the hallways
• No designated exercise space on the units
• Equipment; competence using equipment; broken equipment
• Communication boards: lost markers; updating information on the board
PATIENTS:

- Patients are sicker, more complex
- Size of patients
- Mood
- Cognition
- Culture/attitude from patient and family
- Patient often at many test/procedures therefore hard to get to
Barrier assessment

- **Family**
  - Don’t want patient to fall
  - “Better to rest”

- **Patient related**
  - Doesn’t want to
  - Too sick
  - Confused

- **Corporate**
  - Staffing ratio
  - Competing priorities

- **Treatment**
  - Lack of order
  - IV/Catheter

- **Staff**
  - Negative attitude
  - Not my job
  - No time
  - Lack of confidence

- **Physical environment**
  - Clutter in hallway
  - Lack of assistive devices
  - No where to walk
  - No where to sit

**Patients are left in bed**
FACILITATORS TO MOBILIZING PATIENTS:

**STAFF:**

- Senior management and unit management leadership
- Having a mandate; a culture that promotes mobility (Hand Hygiene model)
- Getting Dr’s involved
- Clear, up to date mobility status (in vicinity of the patient)
- Team approach
ENVIRONMENT:

- Decreased clutter
- Communication boards updated/clear mobility status
- No bed pan policy!!!
Phase 2 - Intervention

- Duration: 8 weeks (January 7th – March 1 2013)
- Deliver the intervention
- Track intervention components
- Conduct audits twice a week and enter data
- Conduct chart reviews and coordinate data
- Participate in Steering Committee Meetings
Key Messages of Educational Interventions

**Musts:**
- Encourage mobilisation 3x a day
- Mobilization should be progressive and scaled
- Mobility Assessments should be implemented within 24 hours of the decision to admit
- Mobility “events” need to be documented in the chart

**Possible methods of delivery:**
- One to One coaching and mentoring
- Huddles; bullet rounds, bedside rounds
- Fairs/Education Days
- E-Modules
- Classroom Education and in-services
1. **Recruitment of Opinion Leaders:**
   Both Units, all disciplines – formal and informal leaders

2. **Marketing:**
   - Poster campaign on both units including:
     Benefits of Getting out of Bed while in Hospital and Hazards of Immobility
     “Have you Moved Today?” hand cards
   - Distribution of the Keep Moving patient handouts:
     Myths and Facts about Being Active in Hospital
   - “Move and Improve”; “Mobility Champion” buttons
Hazards of Immobility
Decline in mobility is a leading complication of hospitalization for older patients
Onset of complications—
Pathophysiological changes within 24 hours of bed rest:

**Respiratory System**
- Decreased lung volume
- Pooling of mucous
- Cilia less effective
- Decreased oxygen saturation
- Aspiration atelectasis

**Gastrointestinal System**
- Increased risk of aspiration
- Loss of appetite
- Decreased peristalsis
- Constipation

**Musculoskeletal System**
- Weakness
- Muscle atrophy/wasting
- Loss of muscle strength by 3-5%
- Calcium loss from bones
- Increased risk of falls due to weakness

**Circulatory System**
- Loss of plasma volume
- Loss of orthostatic compensation
- Increased heart rate
- Development of DVT

**Psychological**
- Anxiety
- Depression
- Sensory deprivation
- Learned helplessness
- Delirium

**Genitourinary System**
- Incomplete bladder emptying
- Formation of calculi in kidneys and infection

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Benefits of getting out of bed while in hospital

- **Skin**
  - Can help prevent bed sores

- **Lungs**
  - Improved breathing
  - Improved cough

- **Nutrition**
  - Improved appetite
  - Less risk of choking when eating

- **Brain**
  - Improved mood
  - Improved sleep

- **Muscles/Bones**
  - Less weakness
  - Less joint pain
  - Prevents loss of strength

- **Heart**
  - More stable blood pressure

**Strategies**
- Sit up for all your meals
- Sit up in a chair when you have visitors
- Walk around the unit either with help or if able to do so by yourself
- Do bed exercises on your own throughout the day

If you are not sure what you are safe to do, ask a member of your healthcare team.
First step is to dangle To Chair
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Intervention: TOH plan

3. **Communication**:
   - MDs: Geriatric division, CTU Medicine/Internal Medicine
   - Discipline specific for health professionals - OT, PT, SW, SLP, nutrition, pharmacy; psychology; nutrition
   - Nursing and PCA specific education
     - Team approach - team meeting format
     - FAQ for all
     - Comprehensive Media Plan
     - RGPEO rounds
Intervention: TOH plan

4. **Strategy**
   - Mobility Assessments completed within 24 hours by nursing or Physiotherapy
   - Mobility status clearly identified and updated on patient communication board
   - Mobility status communicated in bullet rounds/hourly bedside rounds/handover
   - Ensure compliance on units (add to LEM goals for managers? Add to goal setting for clinicians on yearly Performance Review process? Ongoing coaching for staff?)
Intervention: TOH plan

4. **Strategy**

- Daily walkabouts by Education lead, nursing formal leadership/opinion leaders (managers, educators, APNs) during implementation phase
- Mobility boards (audits for compliance)
- Clear and specific documentation in the chart recording mobility events: “if it’s not documented, it didn’t happen”
- Aggressive Occ. Health Transfer training for all staff
- Family and patient education encouraging mobilization; instruction in simple bed and/or chair exercises
- Recognition of “Mobility Champions”
Goals of Educational Intervention

• 100% buy in from stakeholders and opinion leaders on the units
• 80% of staff attend education session
• 80% of staff receive Knowledge to Practice coaching
• 100% compliance unit leaders; 80% compliance unit staff completion of on-line Modules
• 100% patients mobilized 3x/day
• 100% congruency between visibility boards and chart
• Integration of mobility into unit processes: a basic Standard of Care
Phase 3 – Evaluation

- Duration: 20 weeks (March 4 – July 19, 2013)
- Post intervention review (local and central)
- Conduct audits twice a week and enter data
- Conduct chart reviews and coordinate data
- Develop roll-out to other TOH medicine units; the remainder of TOH in 2013 - 2014
Exit Interviews

- Purpose is to explore the perceptions of the intervention, fidelity of the intervention and strategies for facilitating sustainability
- Participants: up to 20 participants at each site will be invited including 10 staff and 10 patients/families
- Research coordinator will recruit participants
- Interviews (and analysis) will be conducted by the central MOVE ON team
- Interviews will last 30 to 60 minutes
Measurement Outcomes

- Frequency of mobilization of patients - *Direct observation* - % of unit census documented not in bed during audit

- Number of mobilization events – *Chart review* – # events within 48 hours of admission and 24 hours prior to D/C

- LOS – *in days (decision support)*

- Falls and Injurious Falls - *# reported (decision support)*
Measurement Outcomes

- Functional Status at admission and D/C (ADL/IADL) – *Chart review - % patients in each category of ADL status*

- Discharge Destination - *% patients D/C to location other than LTC (dec. support)*

- Perception and satisfaction (patients/families and staff) – *Exit interviews – qualitative data*
Questions and Comments?

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