Aims of course/workshop
The aim of this workshop is to provide an overview of contemporary research about the assessment and management of lower urinary tract symptoms in frail older adults in different health care settings, and to describe the implications of this research for policy, research and practice.

Learning Objectives
1. Describe contemporary research about the assessment and management of lower urinary tract symptoms in frail older adults in different health care settings.

2. Debate the concept of quality continence care and quality of life for frail older adults with incontinence.

3. Evaluate the implications for policy, research, and practice.
Promoting an evidence-based approach to ‘quality continence care’ for frail older adults

Dr Joan Ostaszkiewicz, PhD, RN, MN
Professor Mary H. Palmer, PhD, RNC, FAAN, AGSF
Professor Brenda Roe, PhD, RN, RHV, FRSPH
Dr Kristine Talley, PhD, RN, CPNP-BC
Ms Sharon Eustice, MSc, BPh, RGN, DNCert, Dip(NP)

The aim of the workshop

► To provide an overview of contemporary research about the assessment and management of lower urinary tract symptoms in frail older adults across the continuum of health care services

► To describe the implications of this research for policy, research and practice

Workshop speakers

► Dr Joan Ostaszkiewicz, PhD, RN, MN
  Postdoctoral Research Fellow
  Centre for Quality and Patient Safety Research, School of Nursing & Midwifery
  Deakin University (Aust)

► Professor Mary H. Palmer, PhD, RNC, FAAN, AGSF
  Distinguished Professor in Aging
  School of Nursing
  The University of North Carolina at Chapel Hill (USA)

► Professor Brenda Roe, PhD, RN, RHV, FRSPH
  Professor of Health Research
  Evidence-based Practice Research Centre, Faculty of Health & Social Care
  Edge Hill University (UK)

► Dr Kristine Talley, PhD, RN, CPNP-BC
  Assistant Professor
  School of Nursing
  University of Minnesota (USA)

► Ms Sharon Eustice, MSc, BPh, RGN, DNCert, Dip(NP)
  Nurse Consultant for Continence
  Peninsula Community Health, Cornwall and Isles of Scilly (UK)
Long-term care

- 2/3 people in the USA who reach age 65 will need LTC during their life (Harris-Kojetin et al. 2013)

- Long-term care services include a broad range of health, personal care, and supportive services that meet the needs of frail older people and other adults whose capacity for self-care is limited because of a chronic illness; injury: physical, cognitive, or mental disability; or other health-related conditions (HHS, 2013)

- Long-term care services are provided by paid, regulated providers (Harris-Kojetin et al., 2013)

Limited assessment and inconsistent toileting assistance

- No toileting programmes for residents with incontinence
  - USA (22.8%)
  - Italy (12.3%)
  - Denmark (6.6%)
  - France (5.3%)
  - Japan (4.3%)
  - Sweden (2.3%)
  - Iceland (2.6%) (Sgadari et al., 1997)

A conceptual framework for understanding causes of urinary incontinence

- Physical dependence: UI increases by 300-400% with impaired ADL and 700% if wheelchair or bed bound (Sheenhu et al., 2007)
Guidelines and evidence-based interventions (Wagg et al, 2013, 2014)

Guidelines
► Conduct a comprehensive and individualised assessment to identify potential modifiable or reversible causes
► Conduct a basic assessment then a specialised assessment
► Consider the multifactorial nature of incontinence in older people
► Adopt a minimally invasive approach, consider life expectancy, quality of life, and realistic outcome possibilities
► Ensure equitable access to the full range of options

Interventions
► Staff education
► Toileting assistance programmes
► Strength/endurance/mobility programmes
► Evidence-based and multidisciplinary continence assessments

Working in a highly regulated environment

- Difficulty operationalising funding requirements
- Difficulty complying with care standards
  - A focus on documentation & funding
  - Confusion, uncertainty and mistrust
  - A culture of risk adversity
  - Highly protective responses

A devalued role

- Personal care work has the symbolic distinction of being ‘dirty work’
- Frontline staff:
  - Heavy workload/lack of time for “extra” care.
  - Poorly remuneration
  - Feel public do not understand, appreciate, value
  - Feel undervalued, disempowered, subordinate, marginalised
  - Feel limited to:
    - ‘Just doing dirty work’
    - ‘Just doing the wees and poos’
    - ‘Just helping residents get ready for lifestyle staff’
Responses to a devalued role

- No choice but to ‘grapple’ with devaluation, stigma, aesthetically unpleasant and ‘dirty’ work
- Buckle under
- Strive for the best
- Adopt self-protective distancing behaviours and concealment strategies
  - Claim to rise above disgust
  - Engage in emotional labour
  - Create physical distance – practical & symbolic significance
- Seek roles with higher occupational status
- Espouse dignity and the greater good
- Reframe care
  - Positively assert the value of ‘dirty work’
  - Reframe personal care work/continence care as ‘dignity work’

Highly dependent residents

They [cognitively impaired residents] don’t do the normal job anymore. They are sitting and sleeping most of the time. They are not active. They are sitting in the room and you try to get them up for activities and exercise and they say, “why, why do I have to do this” (Int-01).

- Accepting negative broader cultural beliefs about older people
- Being disheartened
- Attributing symptoms to ageing rather than to pathological and potentially treatable conditions
- Limited life expectancy
- Multiple comorbidities
- High levels of functional impairment
- High levels of cognitive impairment

Ethically challenging carework

Give residents independence and control over their care. If they don’t want to get out of bed, don’t get them out of bed – it’s their choice still.

But, it is constrained. If they don’t want to get up but its 2.30 in the afternoon and you are about to leave and you have to get your residents up and do the care before you leave. And they don’t really have a choice then (Int-06)

You might be assisting one resident to shower and you know that another resident is dying to go to the toilet but you can’t leave that resident so...

- Prioritised
- Compromised
- Variable communication strategies to attain residents’ acceptance
- Routinized care
- Rely on teamwork
- Draw on information from a range of sources

Recommendations to address the multiple interrelated complex factors influence the delivery of continence care in LTC

► Redress the longstanding problem of lack of skilled nursing staff and understaffing
► Ensure policy makers are aware of the front-line realities of performing carework
► Tackle longstanding problems of ageism, under resourcing and overregulation of LTC, and the stigma associated with carework
► Involve ethicists in developing guidance to assist staff respond to the day-to-day complex ethical issues that arise when providing continence care
► Ensure assessments for funding are disentangled from assessments for clinical care
► Ensure regulation does not have unintended negative effects
► Ensure standards of care are contextually appropriate, achievable, understandable, evidence-based and underpinned by a suite of quality indicators that enable us to measure the quality of care

Dignified continence care: being cared for by staff who:
► Conveyed compassion / empathy
► Offered choice
► Spoke in a calm manner
► Covered them during personal/continence care
► Checked, changed and discarded wet/soiled items discreetly
► Helped conceal their reliance on continence products
► Made them feel dry and comfortable
► Did not embarrass them
► Recognised and responded in a timely and sensitive manner to their need for assistance

Undignified continence care
► Having one’s body exposed
► Feeling objectified
► Being in a wet or soiled state
► Being woken against one’s will for continence care
► Being encouraged to use pads instead of the toilet
► Being cared for by staff whose focus was on completing a task

1948 Universal Declaration of Human Rights
► The right to health
  ➤ Access to timely, acceptable, and affordable healthcare of appropriate quality
► ‘Access’
  ➤ Access to health care
  ➤ Getting access to sites of care where patients can receive needed services
  ➤ Finding providers who meet the needs of individual patients and with whom patients can develop a relationship based on mutual communication and trust (AHRQ)

Implications for policy, research and practice

1. UI/FI are prevalent symptoms in LTC that are caused by pathophysiological and/or non pathophysiological factors
   - Need to address both in policy, research and practice

2. Multiple inter-related factors influence how LTC staff determine and deliver continence care i.e. regulation, low role status, residents’ highly dependent status, ethically challenging care environment – can hinder or promote quality continence care
   - Interventions to enhance continence care in LTC need to accommodate this complexity

3. Providing ‘evidence based continence care’ in LTC requires a multifaceted approach that guarantees residents' rights are upheld and ensures they feel respected, safe, and dignified

References

► what is long-term care? [Accessed June 12, 2013]
► Ostaszkiewicz, J., O’Connell, B., Dunning, T. Fear and overprotection in Australian resident aged care facilities: The ethical conflict of regulations for quality care and care. (Accepted for publication in the Australasian Journal on Ageing)
Evidence-based continence care for frail older adults: A right or a privilege?

Mary H. Palmer, PhD, RNC, FAAN, AGSF
Helen W. & Thomas L. Umphlet Distinguished Professor in Aging
The University of North Carolina at Chapel Hill
School of Nursing

Objectives

• Explore continence care as a legal, regulatory, and ethical issue.
• Propose value proposition for provision of evidence-based continence care for ALL frail older persons.

United States: Nursing Home Residents

The percentage of the older adult population residing in nursing homes increases with each decade of age:


Prevalence: Sarcopenia

Figure 1. Muscle strength status in adults aged 60 and over, by age: United States, 2011–2012

Frailty

• By age 80 years, 40% of older adults have functional impairments

• 6% to 11% are considered frail
  United States estimate: 6.1%  Source: Dubbeau et al., 2009

• Psychological effect of transition from robust (independent) to frailty – evolving identity, “looking glass self”  Source: Fillitt & Butler, 2009
Definitions

Right: *noun*
“That which is just, moral, or proper.”

Privilege: *noun*
“A special advantage, immunity, permission, right, or benefit granted to or enjoyed by an individual, class, or caste.”

Continence Care: Regulatory and Legal Perspectives

In the United States:
“Federal law contains four key standards for nursing home care:
- The nursing home must provide services to help each resident attain or maintain the **highest practicable** physical, mental, and psychosocial well-being.
- A resident’s ability to bathe, dress, groom, transfer, walk, toilet, eat and communicate **must not decline** unless it is medically unavoidable.
- If a resident is unable to carry out activities of daily living, he or she **must receive help** to maintain good nutrition, grooming, and personal and oral hygiene.
- Each resident has the **right to make choices** about his or her care.”
Source: [http://www.atlantalegalaid.org/fact11.htm](http://www.atlantalegalaid.org/fact11.htm)
Interpretation of 29 CFR 1910.141(c)(1)(i): Toilet Facilities

The language and structure of the general industry sanitation standard reflect the Agency’s intent that employees be able to use toilet facilities promptly. The standard requires that toilet facilities be “provided” in every workplace. The most basic meaning of “provide” is “make available.” …

Toilets that employees are not allowed to use for extended periods cannot be said to be “available” to those employees. Similarly, a clear intent of the requirement in Table J-1 that adequate numbers of toilets be provided for the size of the workforce is to assure that employees will not have to wait in long lines to use those facilities. Timely access is the goal of the standard.


Regulatory Implications: Long-term Care

REGULATION: F315 §483.25(d) Urinary Incontinence

Based on the resident’s comprehensive assessment, the facility must ensure that:

• §483.25(d) (1) A resident who enters the facility without an indwelling catheter is not catheterized unless the resident’s clinical condition demonstrates that catheterization was necessary; and

• §483.25(d) (2) A resident who is incontinent of bladder receives appropriate treatment and services to prevent

Legal Implications

Nursing home resident waits 45 minutes on toilet for help, breaks pelvis, $4 million suit says

David E. Pattison’s suit claims that the actions against him by staff at Avamere Health Services’ nursing homes in Southwest Portland and Beaverton were “outrageous.”

Source: Aimee Green | The Oregonian/OregonLive By Aimee Green: February 27, 2015 at 11:00 AM, updated February 27, 2015 at 11:49 AM
Urinary incontinence in the long term care setting. Columbia (MD): American Medical Directors Association (AMDA); 2012

Guideline Objective(s): To improve the quality of care delivered to patients with urinary incontinence (UI) in long term care (LTC) facilities and to provide guidelines that focus on UI in the LTC setting.

Target Population: Elderly individuals and/or residents of long term care (LTC) facilities with urinary incontinence (UI)

Diagnosis/Evaluation
- Review of patient history of urinary incontinence (UI)
- Documentation of signs/symptoms of UI
- Identification of factors (including modifiable factors) affecting continence
- Physical examination and additional work-up, as indicated (e.g., PVR testing, urinalysis, bladder stress testing, prostate specific antigen [PSA] testing)
- Summarization of patient information

Treatment/Management
- Development of treatment goals and individualized treatment plan
- Addressing transient causes and modifiable risk factors for incontinence
- Toileting program
- Additional or alternate programs including bladder rehabilitation/retraining or pelvic floor rehabilitation
- Pharmacologic therapy
- Incontinence devices and products
- Pelvic support devices
- Surgery for incontinence
- Catheterization (intermittent or indwelling)
- Monitoring the course of UI and its treatment

... continued
Urinary incontinence in the long term care setting. Columbia (MD): American Medical Directors Association (AMDA); 2012

Major Outcomes Considered

- Continence
- Quality of life
- Side effects/complications of treatment

U.S. Nursing Homes with F315 Deficiencies

- None
- Level 1: No Harm, minimal potential
- Level 2: No Harm, more than minimal potential
- Level 3: Actual Harm, no immediate jeopardy
**Impact of fecal incontinence: Nursing Homes**

- Little privacy while defecating for 77%
- Immediate assistance after defecating was unavailable for 90%
- 100% could not clean themselves after defecating
- Few (13%) were provided information about causes and treatment of FI


**A Glass Half Full**

Characteristics of continent residents and residents with FI only, UI only, and DI in Nursing Homes

![Image](chart.png)


**Hospitals: Patient Safety Initiative**

Aim: Eliminate *preventable* patient harm

QUESTION: Is *iatrogenic incontinence* an unintended consequence of falls reduction programs or other well-meaning patient safety initiatives?
### Risk factors for Incident (new) Urinary Incontinence in Hospitalized Elders

<table>
<thead>
<tr>
<th>Risk Factor</th>
<th>OR (95% CI)</th>
<th>p-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continence aids (reference: self-toileting)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Urinary catheter</td>
<td>4.26 (1.53–11.83)</td>
<td>.005</td>
</tr>
<tr>
<td>• Adult diaper [sic]</td>
<td>2.62 (1.17–5.87)</td>
<td>.02</td>
</tr>
<tr>
<td>Activities of daily living at admission (reference: independent)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Partially dependent</td>
<td>2.96 (1.01–8.71)</td>
<td>.049</td>
</tr>
<tr>
<td>• Dependent</td>
<td>3.27 (1.49–7.15)</td>
<td>.003</td>
</tr>
</tbody>
</table>

**Adjusted for age, cognitive status, physical activity**

Source: Zisberg et al., JAGS, 2011.

### Ethical Issues

**Biomedical Ethical Principles:**
- Right to autonomy
- Beneficence and non-maleficence
- Justice

and newly proposed:

**Dignity-enhancing Care:**
- Lived experience of older person and carer
- Integrity, humility, privacy, historicity, singularity, and relationships

Source: Improving continence care for people with dementia living at home, Alzheimer Europe, 2014

### United Nations: The Universal Declaration of Human Rights

**PREAMBLE**

Whereas recognition of the inherent dignity and of the equal and inalienable rights of all members of the human family is the foundation of freedom, justice and peace in the world, (continued)

**Article 1.**

All human beings are born free and equal in dignity and rights. They are endowed with reason and conscience and should act towards one another in a spirit of brotherhood.

A.G. Schneiderman Announces Arrest And Guilty Plea Of Erie County Nurse Aide For Taking And Exchanging Compromising Photograph Of Incontinent Patient Via Snapchat

Defendant Admits To Surreptitiously Photographing Patient In State Of Undress

NEW YORK – Attorney General Eric T. Schneiderman today announced the arrest of Edward J. Melock, a nurse aide in Erie County, for taking and exchanging a compromising photograph of an incontinent patient via the smartphone app Snapchat. Melock, who was employed at Greenfield Health and Rehabilitation Center in Lancaster, was accused of taking the photograph of an elderly patient in a state of undress on or about March 1, 2013, and sharing it via Snapchat. ....

What Will Success Look Like?

• Preservation and promotion of function
• Preservation and promotion of quality of life
• Preservation and promotion of continence through:
  – Assessment
  – Treatment consistent with evidence and patient preferences
• Increase in knowledge, skills, and using evidence-based practices
• Increase in patient involvement in care planning

Need for Action for Continence Promotion

• Current and future needs of frail older persons will overwhelm the workforce and healthcare systems.
• Consumer preference and patient-centered care will create new demand for change in how care is provided to meet elimination needs.
• Continence is increasingly viewed as a public health issue with ethical implications.
• On-going carer education, clinical competency development, and supervision MUST be part of process.
• Essential elements for success: implementing successful change processes, partnerships, consumer engagement, development of evidence for interventions with patient participation.
• Patient safety and quality improvement complements continence promotion.
Value Proposition

Create your value proposition for evidence-based continence care for all frail older persons.
Systematic review of systematic reviews: Evidence synthesis of managing urinary incontinence in older people in care homes

Brenda Roe

Professor of Health Research, Evidence based Practice Research Centre, Faculty of Health & Social Care, Edge Hill University; Honorary Fellow, Personal Social Services Research Unit, University of Manchester, UK
Introduction

• Urinary incontinence is highly prevalent in older people in long term care settings; including nursing, residential or care homes and aged care facilities in the community

• The costs of managing incontinence in terms of staff time, resources, aids and appliances are high yet economic evaluations remain few

• There is limited but emerging evidence of effectiveness from systematic reviews of conservative / behavioural approaches for the management of urinary incontinence which form the main focus of nursing care.
Aim and methods

• To synthesise evidence from systematic reviews on the management of urinary incontinence and promotion of continence using conservative/behavioural approaches in older people in care homes to inform clinical practice, future guidelines and research.

• A narrative synthesis was undertaken.

• For the Review methods the PRISMA statement was followed, as were established methods for systematic review of systematic reviews.
Results

• 5 systematic reviews of high quality were included.

• 3 specific to intervention studies and 2 reviewed descriptive/observational studies.

• Urinary incontinence was the primary outcome in 3 reviews with factors associated with the management of urinary incontinence the primary outcome for the other 2 reviews.
<table>
<thead>
<tr>
<th>Review &amp; year</th>
<th>Aim (participants)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fink et al 2008</td>
<td>To determine efficacy and safety of treatments for NH residents with UI</td>
</tr>
<tr>
<td>Roe et al 2011</td>
<td>To review published descriptive empirical (qualitative or quantitative) studies of care practices associated with management of UI, promotion or maintenance of continence in older people 65 years and above in CH with UI as the primary focus. Narrative synthesis. Parallel SR.</td>
</tr>
<tr>
<td>Flanagan et al 2012</td>
<td>To review published intervention studies for the management of UI, promotion or maintenance of continence in older people 65 years and above in CH with IU as primary focus. Narrative synthesis. Parallel SR.</td>
</tr>
<tr>
<td>Roe et al 2013</td>
<td>To review published descriptive empirical (qualitative or quantitative) studies of care practices &amp; associated factors with management of UI, promotion or maintenance of continence in older people 65 years and above in CH with associated factors the primary focus. Narrative synthesis. Parallel SR.</td>
</tr>
<tr>
<td>Flanagan et al 2014</td>
<td>To review published intervention studies of associated factors with the management of UI, promotion or maintenance of continence in older people 65 years and above in CH. Narrative synthesis. Parallel SR.</td>
</tr>
<tr>
<td>Review &amp; year</td>
<td>Number of studies included</td>
</tr>
<tr>
<td>----------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Fink et al 2008</td>
<td>10; 8 behavioural interventions relevant to this review; 6 pharmacological interventions with 2 relevant to this review combined with behavioural interventions. Countries not specified. Total 10 relevant studies</td>
</tr>
<tr>
<td>Roe et al 2011</td>
<td>10 (1980-2005; 3 in 1980s, 4 in 1990s, 3 in 2000s) 7 USA; 1 England; 1 England, 1 (England, Wales &amp; Northern Ireland; 1 international involving 7 countries</td>
</tr>
<tr>
<td>Flanagan et al 2012</td>
<td>33 (1980-2009; 5 in 1980s, 17 in 1990s, 11 in 2000s) 26 USA, 2 England, 1 each Netherlands, Turkey, Australia, Israel &amp; Japan</td>
</tr>
<tr>
<td>Roe et al 2013</td>
<td>16 (1985-2008; 1 in 1980s, 6 in 1990s, 9 in 2000s). 12 USA, 3 England, 1 Canada</td>
</tr>
<tr>
<td>Flanagan et al 2014</td>
<td>9 (1984-2004; 3 in each decade 1980s, 1990s, 2000s). 7 USA, 2 UK (1 each for Scotland &amp; Wales)</td>
</tr>
<tr>
<td>Totals</td>
<td>78 relevant studies in 5 reviews (of which 52 undertaken in the USA)</td>
</tr>
<tr>
<td>Adjusted Totals *</td>
<td>72 relevant studies with 52 (76%) in the USA</td>
</tr>
<tr>
<td>Review &amp; year</td>
<td>Total number of care homes &amp; participants</td>
</tr>
<tr>
<td>----------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Fink et al 2008</td>
<td>Total number of homes not specified; 979 residents recruited/ 781 completed (872/697 behavioural studies; 107/84 behavioural plus pharmacological intervention)</td>
</tr>
<tr>
<td>Roe et al 2011</td>
<td>552 CH (range 3 – 378 per study; 2 studies not specified but comprised 7 national samples; 1 study CH from 5 states in USA). 444,769 residents recruited/444,429 completed.</td>
</tr>
<tr>
<td>Flanagan et al 2012</td>
<td>196 CH (166 NH &amp; 30 RH; range 1 - 30). 4333 residents recruited/2971 completed.</td>
</tr>
<tr>
<td>Roe et al 2013</td>
<td>1203 CH from 14 studies (range 2-841). 87,171 residents sampled/ 86,840 completed (range 6- 77,337); 367 managers/staff ( 4 studies: range 33-166), 171 family members (1 study)</td>
</tr>
<tr>
<td>Flanagan et al 2014</td>
<td>33 CH (33 NH &amp; 4 aged care). 708 residents recruited/701 completed.</td>
</tr>
<tr>
<td>Totals</td>
<td>1984 CH; 537,960 residents recruited/ 535,722 completed/data available plus 367 managers/care staff &amp; 171 family members</td>
</tr>
<tr>
<td>Adjusted Totals *</td>
<td>1930 CH; 537,237 residents recruited/ 535,178 completed/ data available plus 367 managers/care staff &amp; 171 family members</td>
</tr>
<tr>
<td>Review &amp; year</td>
<td>Residents completed</td>
</tr>
<tr>
<td>---------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>Fink et al 2008</td>
<td>781</td>
</tr>
<tr>
<td>Roe et al 2011</td>
<td>444,429</td>
</tr>
<tr>
<td>Flanagan et al 2012</td>
<td>2971</td>
</tr>
<tr>
<td>Roe et al 2013</td>
<td>86,840</td>
</tr>
<tr>
<td>Flanagan et al 2014</td>
<td>701</td>
</tr>
<tr>
<td>Total</td>
<td>535,722</td>
</tr>
<tr>
<td>Adjusted Totals*</td>
<td>535,178</td>
</tr>
</tbody>
</table>
Results and discussion

- Toileting programmes, in particular prompted voiding, with use of incontinence pads are the main conservative behavioural approach for the management of incontinence and promotion of continence in this population with evidence of effectiveness in the short term.

- More intervention studies, predominantly trials, are available than descriptive observational studies.

- More recent studies are of higher methodological quality.
Results and discussion

- Few studies available on economic evaluations

- Studies maintaining continence in older people in care homes are lacking

- Evidence from associated factors; exercise, mobility, comorbidities, hydration, skin care, staff perspectives, policies and older people’s experiences and preference are limited.
Results and discussion

• The majority of evidence of effectiveness are from studies from one country which may or may not be transferable to other care home populations

• Future studies that combine complex interventions using standardised outcomes and mixed methods with qualitative studies embedded including both implementation and economic evaluations are warranted. Studies should adhere to established international methodological and publication standards
Conclusion

• Nursing practice and values should reaffirm a focus on ‘embodied’ care, that is, meeting essential basic needs of older people in terms of mobility, elimination, nutrition, hydration and hygiene while preserving dignity. Involving older people as partners in compassionate care is paramount.

• Such approaches are essential for assuring quality of care when managing urinary incontinence and promoting continence in older people in care homes.
Thank you

Contact details:
Brenda Roe – Professor of Health Research, Faculty of Health & Social Care, Edge Hill University, UK. Email: roeb@edgehill.ac.uk

Treating Urinary Incontinence in Frail Community-dwelling Older Adults

Kristine Talley, PhD, GNP-BC, RN
Assistant Professor
ICS 2015 Workshop Promoting an evidence-based approach to ‘quality continence care for frail older adults

Objectives
At the end of this presentation, the learner should be able to:
• Identify risk factors for developing urinary incontinence (UI) in community dwelling frail older adults
• Evaluate the evidence on treating UI in community dwelling frail older adults
• Create a model for studying incontinence
• Identify future research needs on UI in community dwelling frail older adults

Definitions
• Urinary Incontinence
  – “Involuntary loss of urine that is a social or hygienic problem” (Abrams et al., 2010, p. 213).
• Frail elderly
  – “People over the age of 65 with a clinical presentation or phenotype combining impairments in physical activity, mobility, balance, muscle strength, motor processing, cognition, nutrition, and endurance including feelings of fatigue and exhaustion” (Wagg et al., 2014, p. 1).
• Functional Urinary Incontinence
  – “The complaint of involuntary loss of urine that results from an inability to reach the toilet due to cognitive, functional, or mobility impairments in the presence of an intact lower urinary tract system” (Abrams et al., 2010, p. 213).
Prevalence of Urinary Incontinence in Adults Age 65+ by Setting during 2007-2010

<table>
<thead>
<tr>
<th>Setting</th>
<th>Overall</th>
<th>Women</th>
<th>Men</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community dwelling</td>
<td>44%</td>
<td>55%</td>
<td>25%</td>
</tr>
<tr>
<td>Residential care facility</td>
<td>40%</td>
<td>40%</td>
<td>20%</td>
</tr>
<tr>
<td>Home health &amp; hospice</td>
<td>32%</td>
<td>40%</td>
<td>20%</td>
</tr>
<tr>
<td>Nursing home short-stay</td>
<td>70%</td>
<td>74%</td>
<td>31%</td>
</tr>
<tr>
<td>Nursing home long-stay</td>
<td>37%</td>
<td>37%</td>
<td>37%</td>
</tr>
</tbody>
</table>


Consequences of Urinary Incontinence

<table>
<thead>
<tr>
<th>Burden</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional</td>
<td>• $14 billion for community</td>
</tr>
<tr>
<td>• Anxiety</td>
<td>• $5 billion for nursing home</td>
</tr>
<tr>
<td>• Depression</td>
<td>• Containment products</td>
</tr>
<tr>
<td>• Shame/embarrassment</td>
<td>• Treatments (&lt;10% of costs)</td>
</tr>
<tr>
<td>Social</td>
<td>• Caregiving (formal &amp; informal)</td>
</tr>
<tr>
<td>• Activity avoidance</td>
<td>• Complications of UI (skin infection, pressure ulcers, UTIs, sleep deprivation, falls)</td>
</tr>
<tr>
<td>• Social exclusion</td>
<td>• Nursing home admission</td>
</tr>
<tr>
<td>Quality of Life</td>
<td></td>
</tr>
</tbody>
</table>


Syndromic Model for Urinary Incontinence in Frail Older Adults

[Diagram showing various factors affecting urinary incontinence]

[Information on Consequences: Nursing home admission, poor quality of life, death]
Urologic Contributors

Lower Urinary Tract Symptoms
- Urgency
- Frequency
- Weak pelvic floor muscles

Age Related Changes in Urinary System
- Urine output shifted later in the day
- Benign prostatic hypertrophy
- Atrophic vaginitis, urethritis, decreased urethral length, decreased maximal closure pressure
- Detrusor overactivity
- Decreased detrusor contractility
- (Modest) increase post void residual (PVR)
- Decreased total bladder capacity
- Decreased ability to postpone voiding

Factors Contributing to or Causing UI in Older Adults

Comorbid conditions
- Diabetes
- Congestive heart failure
- COPD
- Degenerative joint disease
- Sleep apnea
- Severe constipation
- Prostate cancer
- Benign prostatic hypertrophy
- Pelvic floor prolapse

Neurological
- Stroke
- Parkinson’s disease
- Multiple Sclerosis
- Normal pressure hydrocephalus

Cognitive
- Dementia
- Impaired cognition

Psychological
- Depression

Function
- Impaired mobility

Environment/Cultural
- Inaccessible toilets
- Lack of caregivers
- Belief that UI is an inevitable part of aging

Prevalence of BADL Disability in Community Dwelling Older Adults

<table>
<thead>
<tr>
<th>Disability Definition</th>
<th>Women</th>
<th>Men</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any BADL disability</td>
<td>8.1-14.0</td>
<td>6.5-10.3</td>
</tr>
<tr>
<td>Moderate BADL disability</td>
<td>21.7</td>
<td>19.1</td>
</tr>
<tr>
<td>Severe BADL disability</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Walking</td>
<td>27.3</td>
<td>18.6</td>
</tr>
<tr>
<td>Transferring</td>
<td>27.6</td>
<td>19.2</td>
</tr>
<tr>
<td>Dressing/hygiene</td>
<td>17.1</td>
<td>13.2</td>
</tr>
<tr>
<td>Toileting</td>
<td>?</td>
<td>?</td>
</tr>
</tbody>
</table>

Medications that Can Cause or Worsen UI

- Alcohol
- α-Adrenergic agonists
- α-Adrenergic blockers
- ACE inhibitors
- Anticholinergics
- Antipsychotics
- Calcium-channel blockers
- Cholinesterase inhibitors
- Estrogen
- Gabapentin
- Loop diuretics
- Narcotic analgesics
- Non-steroidal anti-inflammatory drugs
- Sedative hypnotics
- Thiazolidinediones
- Tricyclic antidepressants

Tailoring UI Treatments for Diverse Frail Populations

- Treatments must accommodate resident characteristics & abilities
- Treatments should be multi-component, interdisciplinary, and person-centered
- Frail older adults without dementia have the potential to implement prevention programs targeting behavioral change, such as increasing physical activity and conservative treatments for urinary incontinence that do not require caregiver assistance
Behavioral Interventions to Treat UI in Frail Populations

Caregiver Dependent Interventions
- Prompted voiding
- Habit training
- Timed voiding
- Combined toileting and exercise therapy

What do we know about self-managed interventions?

Incontinence Treatments for Frail Older Adults

<table>
<thead>
<tr>
<th>Intervention by Population</th>
<th>Urinary Incontinence</th>
<th>Level of Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>HOMEBOUND</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biofeedback assisted pelvic floor muscle exercises for 8 weeks (McDowell 1999)</td>
<td>75% improvement in daily episodes per 24 hour pad</td>
<td>Level I</td>
</tr>
<tr>
<td>Home health care agency program of pelvic floor muscle exercises, habit training, individual bladder exercises, diet modification, and bowel regimen for 6 weeks (Pines et al. 1989)</td>
<td>75% improvement in severity episode per day</td>
<td>Level II-3</td>
</tr>
<tr>
<td>Home health care agency program of pelvic floor muscle exercises, education on appropriate bladder exercises, and self-monitoring of urinary frequency for 3 months (Dekanski 1992)</td>
<td>76.5% improvement in daily episodes per diary</td>
<td>Level II-3</td>
</tr>
<tr>
<td>Comprehensive Geriatric Assessment program of pelvic floor muscle exercises, bladder training, bowel regimen, individual bladder exercises, and dietary education for 3 months (Harari 2009)</td>
<td>46% reported improvement</td>
<td>Level III</td>
</tr>
</tbody>
</table>

ADULT DAY CARE

- Toilet skills training for 8 weeks (Van houten 2007) 8-35% improvement in 24 hour pad test* |

COMMUNITY DWELLING ELIGIBLE FOR NURSING HOME PLACEMENT

Comprehensive Geriatric Assessment done in PACE** (Mukamel 2006) Those treated by teams with high self-rated effectiveness were 23% less likely to deteriorate in urinary incontinence | Level III |


Design & Feasibility of a Randomized Controlled Trial to Treat UI in Frail Community Dwelling Older Women
Defeating Urinary Incontinence with Exercise Training (DUET)

Design & Setting

- 2 arm randomized controlled trial with treatment and no-treatment control group
- Individuals randomized to groups
- Blinded data collector
- 5 Senior housing facilities with independent & assisted living apartments (3 low income & 2 normal income)

Target Population

- Frail older women
- No Alzheimer’s disease or dementia
- Able to engage in exercise
- Potential to benefit from self-managed behavioral strategies for improving urinary incontinence
- Not have urinary incontinence caused by a neurological disorder

Intervention

- 12 week program, delivered by registered nurses and exercise instructor at the senior housing facility
- Primary goal are to
  - Improving mobility, transferring, and disrobing skills needed for toileting
  - Reduce frequency & severity of urinary incontinence
- Components
  - Individualized risk assessments & treatment recommendations for incontinence and toileting barriers (everyone learned pelvic floor muscle exercises)
  - Twice weekly group exercise
  - Daily walking for exercise
Recruitment Success

<table>
<thead>
<tr>
<th>Building</th>
<th>Number of Women Residents</th>
<th>Days Recruiting</th>
<th>Number of Recruitment Events</th>
<th>Number Screened</th>
<th>Number Enrolled</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Low Income</td>
<td>54</td>
<td>23</td>
<td>2</td>
<td>12</td>
<td>8</td>
</tr>
<tr>
<td>2 Low Income</td>
<td>95</td>
<td>20</td>
<td>3</td>
<td>20</td>
<td>5</td>
</tr>
<tr>
<td>3 Low Income</td>
<td>233</td>
<td>92</td>
<td>8</td>
<td>24</td>
<td>5</td>
</tr>
<tr>
<td>4 Normal Income</td>
<td>112</td>
<td>44</td>
<td>4</td>
<td>11</td>
<td>6</td>
</tr>
<tr>
<td>5 Normal Income</td>
<td>58</td>
<td>56</td>
<td>6</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>558</td>
<td>235</td>
<td>21</td>
<td>71</td>
<td>36</td>
</tr>
<tr>
<td>Mean per building</td>
<td>112</td>
<td>47</td>
<td>4</td>
<td>14</td>
<td>7</td>
</tr>
</tbody>
</table>

Characteristics of Screened Participants

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Mean ± SD or N (Percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>82.2 ± 8.6</td>
</tr>
<tr>
<td>Independent living resident</td>
<td>60 (94.4)</td>
</tr>
<tr>
<td>Assisted living resident</td>
<td>6 (8.8)</td>
</tr>
<tr>
<td>Receiving home care services</td>
<td>5 (7.0)</td>
</tr>
<tr>
<td>Urinary incontinence: ICIQ score Range: (no burden) 0-21 (highest burden)</td>
<td>9.0 ± 4.7</td>
</tr>
<tr>
<td>Frailty: Vulnerable Elders Survey Score Range: (no frailty) 0-10 (most frail)</td>
<td>4.0 ± 2.6</td>
</tr>
<tr>
<td>Days per week engaged in:</td>
<td></td>
</tr>
<tr>
<td>Aerobic exercises for ≥ 30 minutes</td>
<td>1.3 ± 2.2</td>
</tr>
<tr>
<td>Strengthening exercises</td>
<td>1.3 ± 1.8</td>
</tr>
<tr>
<td>Do 150+ minutes of aerobic exercise per week</td>
<td>8 (11.3)</td>
</tr>
<tr>
<td>Do strengthening exercises at least twice weekly</td>
<td>59 (86.8)</td>
</tr>
<tr>
<td>Safe to exercise per EASY screen</td>
<td>85 (91.6)</td>
</tr>
<tr>
<td>Passed cognitive impairment screening: Mini-cog</td>
<td>83 (88.8)</td>
</tr>
</tbody>
</table>

Study Flow Diagram
Sample Characteristics N = 36

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Mean ± SD or N (Percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>84.2 ± 6.9</td>
</tr>
<tr>
<td>Independent living resident</td>
<td>32 (88.9)</td>
</tr>
<tr>
<td>Assisted living resident</td>
<td>2 (5.6)</td>
</tr>
<tr>
<td>Receiving home care services</td>
<td>2 (5.6)</td>
</tr>
<tr>
<td>Live in low income building</td>
<td>22 (61.1)</td>
</tr>
<tr>
<td>Urinary incontinence: ICIQ score Range: (no burden) 0-21 (highest burden)</td>
<td>8.4 ± 3.5</td>
</tr>
<tr>
<td>Frailty: Vulnerable Elders Survey Score Range: (no frailty) 0-10 (most frail)</td>
<td>4.0 ± 2.5</td>
</tr>
</tbody>
</table>

Treatment Group Adherence (N = 17)

<table>
<thead>
<tr>
<th>Component</th>
<th>N = 15 Subjects</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 Nurse home visits</td>
<td>94%</td>
</tr>
<tr>
<td>Average number of times participants did pelvic floor muscle exercises weekly (5 prescribed)</td>
<td>4.8 ± 1.6</td>
</tr>
<tr>
<td>Attend 24 exercise classes</td>
<td>61%</td>
</tr>
<tr>
<td>150 minutes of weekly walking</td>
<td>Hard for women to track</td>
</tr>
</tbody>
</table>

Percentage of Classes Attended

<table>
<thead>
<tr>
<th>Percentage of Classes Attended</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-24%</td>
<td>3</td>
<td>20</td>
</tr>
<tr>
<td>25-50%</td>
<td>4</td>
<td>27</td>
</tr>
<tr>
<td>50-74%</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>75-100%</td>
<td>8</td>
<td>53</td>
</tr>
</tbody>
</table>

Study Challenges

<table>
<thead>
<tr>
<th>Percentage of Participants Who Had Difficulty Using a Daily Diary to Track Program Participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Component</td>
</tr>
<tr>
<td>------------------------------------------</td>
</tr>
<tr>
<td>Tracking pelvic floor muscle exercise sessions</td>
</tr>
<tr>
<td>Tracking Minutes Walked for Exercise</td>
</tr>
<tr>
<td>Tracking number of steps walked for exercise</td>
</tr>
</tbody>
</table>

*if participant withdrew from low income buildings and 1 participant withdrew from normal income buildings
Conclusions

- Frail older women are willing to participate in urinary incontinence studies focused on behavioral treatments if provided in a convenient manner
- Adherence to pelvic floor muscle exercise prescription was very high
- Adherence to group exercise was higher than adherence for walking exercise
- Logging was challenging for many low income women, alternative strategies for tracking program adherence and urinary incontinence are needed
- Recruitment is challenging and requires multiple strategies and facilities

Future Research

- There is a lack of high quality evidence to prepare clinical guidelines for this population
- Multi-component interventions which include pelvic floor muscle exercises, bladder training, and other lifestyle changes show promise for improving urinary incontinence in frail older adults
- Future research should use a standardized definition of frailty, include consistent measures of continence, condition specific quality of life outcomes, and examine the effect of improved physical function on continence status
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  – Barbara Resnick, PhD, U of MD, School of Nursing

• CO-INVESTIGATORS
  – Jean Wyman, Ulf Bronas, Becky Olson-Kallogg, Patricia Schaber, Theresa McCarthy
Frailty in the primary and community setting: can integrated care support us growing old?

Sharon Eustice
Nurse Consultant
UK

‘Death is no longer an event, it is a long, drawn out process’

- Each day between 2011 and 2030, an average of 10,000 people will turn 65
- On average, death is now preceded by 10 years of chronic ill health and figure is rising
- Those aged over 100 years will grow from 10,000 now to 1 million by 2030

Quote accessed from http://www.guybrown.eu/livingend/livingend.htm in April 2015

Multimorbidity is the norm…..

The majority of over-65s have 2 or more conditions, and the majority of over-75s have 3 or more conditions.
More people have 2 or more conditions than only have 1

doi:10.1016/S0140-6736(12)60240-2
Frailty is currently recognised……

Lonely older adults have a 14% increased risk of dying early than their peers who have strong social ties.

Cacioppo et al 2014

Mrs Greenaway was found on the floor ("FLOF") with new confusion by the home care staff and taken to hospital where she was found to be poorly mobile.

A view of Mrs Greenaway…..

85 years
Lives alone
Recently in hospital following a fall
Broken hip 2011
Chronic heart failure = REVIEW ONE
Diabetes = REVIEW TWO
Chronic Kidney Disease = REVIEW THREE
Taking 10 medications = REVIEW FOUR
System designed to fragment care into packages

……. And the incontinence??? ……

A global issue…….http://www.frailty.net

The “FRAILTY.NET” website was launched in March 2014.
It is an international educational resource that aims to help geriatricians, primary care physicians and other health care professionals involved in the care of older persons implement frailty into clinical practice.
Recommendations for international policy

- Early identification of frail people through the use of a screener instrument
- Appropriate training in primary care (frailty & dementia)
- High quality assessment supporting the coordination of the health care professionals, to ensure continuity of care, for policy and research finalities.

FOD Volkgezondheid, Frailty Conference 18 June 2014, Brussels
http://ec.europa.eu/health/ageing/events/ev_20140618_en.htm

Is there good evidence on integration?

- The literature search on integrated care 1997 to 2010 - nine articles met quality measures
- Two types of models of integrated care delivery for the frail elderly:
  - Smaller, community-based model that relied on cooperation across care providers, focused on home and community care, and played an active role in health and social care coordination.
  - Large-scale model that could be applied at a national/provincial/state, or large regional health authority, level, had a single administrative authority and a single budget, and included both home/community and residential services.

Beland & Hollander 2011

Why doesn’t it work so far….?

Three broad areas that need unblocking:

- Money
- Systems, structures and cultures
- Expectations and choice

Health Service Journal; 20 March 2015 (pages 23-27)
So what interventions work?


'......ensure the right workforce with the right skills in the right part of the system to help deliver more co-ordinated care closer to home and to care for an increasingly older group of service users with complex needs.

It may also require creative ways of working, more use of the voluntary sector, and staff who are able to work flexibly to fulfil a number of roles'.
What advice can we offer .......

Look after your feet
Look after your eyes
Make your home safe
Keep active
Medication review
Hearing tests
Preventing falls
Vaccinations
Keeping warm
Get ready for winter
Check out bladder problems
Mental wellbeing

Key take home messages

- There are recognised indicators of frailty that can be detected in clinical practice
- Screening tools can be used to detect frail older people
- There are simple interventions which can be used to slow further deterioration in frail older people
- Frailty can be managed in primary and community care with effective specialist support and integrated care

‘Old age ain’t no place for sissies’

Bette Davis