The Persistent Stigma: Urinary & Fecal Incontinence in the Nursing Home

Mikel Gray, PhD, FNP, PNP, CUNP, CCCN, FAANP, FAAN

Objectives

- Review epidemiology or urinary and fecal incontinence, focusing on nursing home setting
- Examine continence management and attitudes toward continence in the long-term care setting
- Discuss the impact of urinary and fecal incontinence on quality of life

Urinary Incontinence (UI)

- Definition: complaint of any involuntary leakage of urine[1]
  - Strictly Defined: any reported urine loss
  - 'Clinically relevant' UI: urine loss of sufficient problem to be perceived as bothersome or prompt desire to seek care
- Part of a larger framework called Lower Urinary Tract Symptoms (LUTS)

1. Abrams P et al. American Journal of Obstetrics & Gynecology 2002; 187:116.

Storage LUTS

- Daytime Voiding Frequency: report of voiding too frequently
  - Reference range: 8 per 24 hour period or every 2 hours or *less* often while awake
- Nocturia: interruption of sleep owing to desire to urinate
  - Reference range: absence of enuresis by end of 5th year of life; 0-1 < 65 years of age; 0-2 over age 65 years
- Urgency: sudden & strong desire to urinate that is difficult to postpone
- UI: involuntary urine loss
  - Stress (physical exertion)
  - Urge (urgency)
  - Mixed

Abrams P et al., American J OB/GYN 2002; 187: 116.

Urgency

- Desire to urinate: physiologic desire to urinate that can be postponed or acted upon based on circumstances
- *Urgency*: sudden and strong desire to urinate that is not easily postponed or deferred[1]
- *Pain*: differentiate from urge, query duration, character, exacerbating & alleviating factors

1. Abrams P et al. American Journal of Obstetrics & Gynecology 2002; 187:116.

Definitions: LUTS

Voiding LUTS

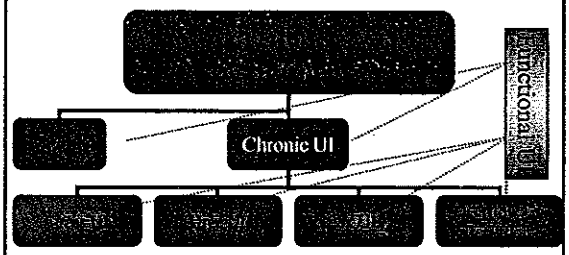
- Slow stream (poor FOS)
- Intermittent stream (stars & stops >1 time)
- Hesitancy (difficulty initiating stream)
- Terminal dribble (prolonged end to micturition, when the flow has slowed to a trickle/dribble)

Postvoid LUTS

- Postvoid dribbling (involuntary loss of urine immediately person has finished passing urine, for men when leaving the toilet)
- Incomplete emptying

Abrams P et al., American J OB/GYN 2002; 187: 116.

Taxonomy of UI Types



Acute/Transient UI: Reversible Factors

- Delirium
- UTI
- Medications (diuretics, α-adrenergic blockers, ACE inhibitors)
- Polyuria (DM, DI, excessive fluid intake)
- Immobility
- Stool impaction/ severe constipation

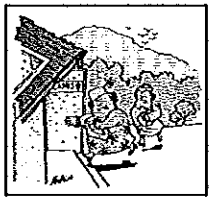
Ermer-Seltun J. Acute or transient urinary incontinence. IN: Doughty DB. Urinary & Fecal Incontinence, 3rd ed. St Louis: Elsevier/ Mosby, p. 55-76.

Established UI

- Stress UI
  - Symptom: urine loss with physical exertion, this symptom occurs in the absence of urgency
  - Sign: leakage with physical provocation
  - Cause: ***urethral sphincter incompetence***

Overactive Bladder/ Urge UI

- Symptom: urine loss with precipitous urge
- Sign: difficult to provoke during PE
- Cause: ***detrusor overactivity*** (uncontrolled, premature detrusor contractions)



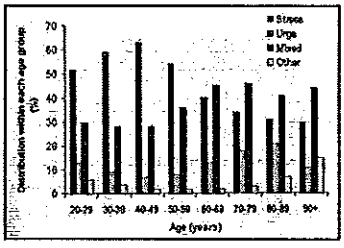
UI: Pathophysiology

- Mixed UI: combination of stress & urge incontinence
- Reflex UI: seen with paralyzing spinal disorders
- Functional UI: cognitive deficit, mobility, dexterity compromises continence potential
- Continuous (extraurethral) UI: fistula or ectopia with constant dribbling or large volume urine loss
- Overflow UI*: associated with urinary retention

UI based on type

- Stress, urge & mixed UI predominate
- Stress declines with aging (6th decade & above)
- Urge & mixed increase with aging
- All others combined: ≈ 10%

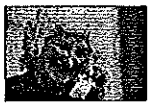
Data include women & men



Prevalence of UI

- Mostly studies are descriptive (P&I)
  - Prevalence of UI in US: 16 million
  - Prevalence worldwide: 200-250 million
  - Incidence: largely unknown*
  - Risk factors: multiple associated factors*, few known risk factors include gender & age

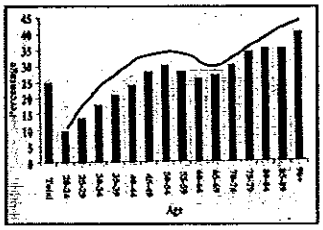
UI in Women



- Women:
  - At least twice the overall risk as men (many studies: 6-7 fold greater risk)
  - Prevalence: depends on underlying definition of UI
    - Any UI: 51%-58% (35%-40% change clothes monthly)
    - UI as a problem: 10%-14%

UI in Women

- Distribution is ***approximately*** bimodal in women with "bump" around climacteric and steady increase with 7th decade of life or greater



UI in Women

- Mixed evidence suggests women may be more likely as men to have UI when they enter long-term care facility
- UI incidence over initial 6-12 months rises slightly; mostly owing to los of physical and mental function[1,2]

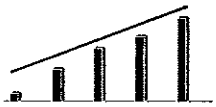
1. Boguth K, Schenk L. Zeitschrift fur Gerontologie und Geriatrie 2008; 41(4):274.
2. Josephine EA et al. Nursing Research 2007; 56(2). 97.

UI in Men

- Less research than in women[1]
  - Prevalence: 3%-11%; differences emerge age 5 years of age & continue throughout lifespan, greatest in working aged adults
  - Incidence: 9% in one group of elder men over 1 year (n=1,956), remission rate was n: 27%, possibly indicating transient UI caused by ?

1. Hunskaar S et al. Incontinence: 3rd Int Consultation, 2005, p. 255.

UI in Men



- Men[1]
  - Prevalence rises proportionally with age
  - Distribution lacks bimodal distribution seen with women, rises more sharply
  - 6th & 7th decades of life: 6%-18%
  - 8th & 9th decades of life: 22%-28%
- More likely than women to develop UI within 1st 6-12 months after admission to nursing home (3 times more likely in one study)

1. Hunskaar S et al. Incontinence: 3rd Int Consultation, 2005, p. 255.

UI: Risk Factors

- Risk factors (both genders)[1]
  - Age (***not a cause or inevitable outcome***)
  - Functional (cognitive impairment, mobility, dexterity, access)
  - Neurologic disorders
  - Family & genetic factors
  - Bothersome lower urinary tract symptoms (LUTS)*
  - Fecal incontinence*

1. Gray M. Nurse Practitioner 2005; 30(7): 32.

UI & Gender: Risk Factors

- Functional Impairment
  - Risk rises with severity of immobility in women
    - Walks with support: OR=1.8
    - Walks with assistance: OR=5.6
    - Wheelchair or bedridden: OR=7.3
- Cognitive impairments (dementia)
  - Some research supports cause & effect relationship
  - Reported OR vary from 2.3 to 12.6

1. Hunskaar S et al. Incontinence: 3rd Int Consultation, 2005, p. 255.

UI & Gender: Risk Factors

- Neurologic Disorders
  - CVA (50%-70%, 60% recover with time)
  - Parkinsonism (affects 31%-71%)
  - Multiple sclerosis (5%-15% at time of diagnosis, affects 96% over course of disease)

1. Hunskaar S et al. Incontinence: 3rd Int Consultation, 2005, p. 255.

Fecal Incontinence (FI)

- Definitions
  - Fecal incontinence: involuntary loss of liquid or solid (formed) stool
  - Anal incontinence: involuntary of liquid or solid stool as well as flatus
  - Definitions do not include uncontrolled seepage of mucoid contents from rectal vault

1. Hunskaar S et al. Incontinence: 3rd Int Consultation, 2005, p. 255.

FI part of larger framework of bowel elimination disorders

- Diarrhea: broad term usually applied to frequent passage of liquid stools, most critical element appears to be consistency and not frequency[1]
- Constipation: change in normal fecal elimination characterized by decreased frequency, passage of hard/dry stools, often with straining[2]
- Obstructive defecation disorders: difficulty passing stool and constipation in the presence or obstructed rectal vault outlet[2]

1. Lebak et al. Clinical Nursing Research 2003; 12: 174.
2. Waldrop J and Doughty DB. Urinary & Fecal Incontinence: Nursing Management, 2nd ed. 2000.

Epidemiology: Fecal Incontinence

- General Population
  - Community dwelling elder adults: ≅ 11%-15%[1] (excludes flatus but incudes seepage of mucus)
  - Adults with Spina bifida: 34%[2]
  - Adult women with pelvic organ prolapse: 28%[3]
- Nursing Home
  - 20% to 50%; some studies classify separately as FI only vs dual UI & FI[4]

1. MacMillan AK et al. Diseases of the Colon & Rectum 2004; 47: 1341.
2. Verhoef M. Spinal Cord 2005; 43(6): 351.
3. Botsham MK et al. American J Obstetrics & Gyn 2005; 192: 1637.
4. Chiang L et al. JAGS 2000; 48(6).

Fecal Incontinence: Risk Factors

- Diarrhea
- Constipation or fecal impaction
- Immobility/ Functional impairment (inability to toilet independently)
- Cognitive impairment
- Tube feeding
- Physical restraints
- CVA (stroke)

1. Hunskaar S et al. Incontinence: 3rd Int Consultation, 2005, p. 255.
2. Chiang L et al. JAGS 2000; 48(6).
3. Chassagne P et al. American Journal of Medicine 1999; 106(7): 185.

Double Incontinence (UI & FI)

- Fecal Incontinence (associated condition)
  - UI powerful predictor of FI; FI powerful predictor of UI[1,2]
  - Double (dual) incontinence affects: 9%-24% or NH residents[1]
  - 56% of incontinent patients had double incontinence in one study[2]
  - Shared risk factors: cognitive & physical impairment; CVA[2]

1. Hunskaar S et al. Incontinence: 3rd Int Consultation, 2005, p. 255.
2. Chiang L et al. JAGS 2000; 48(6).

Assessment & Management: Impact of Revised F Tag 315

CMS

- Combines UI and indwelling urinary catheter tags (*old 315 & 316*) into single guidance tag
- Represents work of key staff from CMS and F315 Scope & Severity Panel; group of clinicians with expertise in UI & catheters
- Multiple consultants have been impaneled to revise multiple tags including F314, which covered pressure ulcer treatment & prevention

Assessment & Management: Impact of Revised F Tag 315

- Governed by 2 regulatory statements
  - §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
  - §483.25(d) (2) A resident who is incontinent of bladder receives appropriate treatment and services to restore as much normal bladder function as possible

Assessing UI Under F315

- Critical Elements of Assessment
  - History
  - Focused Physical Examination
  - Functional/ Environmental Evaluation
  - Log or documentation of fluid intake, voiding patterns
- Other Elements (indicated in selected cases)
  - Laboratory studies: urinalysis, urine culture
  - Post void residual measurement
  - Urodynamic and other diagnostic testing

Assess Voiding & Fluid Intake Patterns

1	2	3	4	5	6
Time Interval	Voided In Toilet	Urine Leakage (S, M, L)	Activity at Time of Leakage	Urge Present	Liquid Intake (Type, Amount)
8:00 to 10:00 am					
10:00 to 12:00 pm					
12:00 to 2:00 pm					
2:00 to 4:00 pm					
4:00 to 6:00 pm					
6:00 to 8:00 pm					

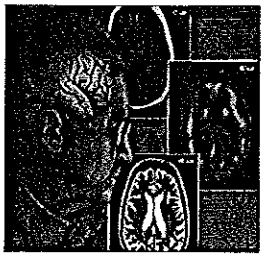
Assess Functional Status

- Mobility & Dexterity
  - Use of assistive devices to ambulate
  - Wheelchair
  - Need for assistive devices to mover onto or from toilet
- Dexterity
  - Ability to manipulate clothing, time needed to access toilet[1]

1. Engberg S. Advanced Practice Nursing Quarterly 1997; 3:48.

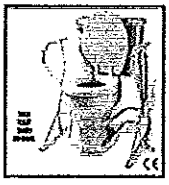
Assess Functional Status

- Cognitive status
  - MMSE
  - MDS
  - Focus examination on awareness of cues to toilet, desire to toilet, ability to comprehend and adhere to requirements of continence



Assess Functional Status

- Evaluate environment
  - Adequate opportunities to toilet?
  - Assistive devices in toilet
  - Bedside devices
  - Urinals



Diagnostic Tests

- Ultrasonic PVR:
- More expensive but noninvasive with no risk of UTI
- Reasonable accuracy as compared to cath
- Equipment easy to learn and use

Revised F-Tag315: Impact on Continence Assessment

- Each resident ***must*** be evaluated
- Evaluation must be ***individualized*** based on resident's needs and current status
- Determine UI type and document this on the resident's chart, simply diagnosing "urinary incontinence" without further evaluation is ***no longer adequate***
- Re-evaluate resident when continence status changes

Treatment: What are the Options?

- Behavioral interventions
- Containment devices
- Pharmacotherapy
- Intermittent catheterization
- Indwelling catheterization

Managing UI Under F315

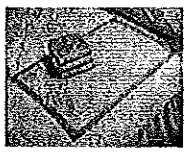
- Habit Training/ Scheduled Voiding
  - Resident toilets on a routine basis based on results of bladder diary/ log or arbitrary schedule (usually every 2-3 hrs while awake)
  - NO effort made to ↑void intervals
  - May be used for residents who cannot self-toilet; not ideal for cognitively impaired residents

Treatment: Behavioral Interventions

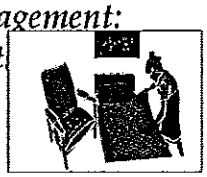
- Prompted Voiding
  - 3 components
    - Regularly monitor and encourage to report continence status
    - Prompt resident to toilet on a regular schedule
    - Praise and positive feedback for toileting attempts & success
  - Good for residents who are cognitively impaired

Incontinence Management: Absorbent Products

- Underpad for Bed or Chair: Blue pads
  - Inexpensive
  - Protect bed linen, <u>but</u>, offer inadequate absorbency for major UI accidents; surface not designed to reduce friction
  - Do not prevent wet back (fluid return)



Incontinence Management: Absorbent Product



- Optimal Underpad
  - Absorbent core that absorbs moisture and effluent throughout entire surface
  - Low coefficient surface to reduce risk of friction damage to skin
  - Core and cover-stock prevent wet-back or fluid return

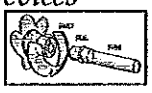
Containment Briefs

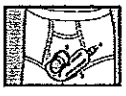
- Best suited for severe or double (urinary & fecal) incontinence
- Do not use "24/7"; prolonged use associated with ↑ risk of IAD, partial thickness PU[1,2]
- Folds elevate tissue interface pressures – even when patient placed on appropriate redistribution surface[3]

1. Gray M et al. Journal of Wound, Ostomy & Continence Nursing 2007; 34(1): 57-69.
2. Fader M et al. Journal of Clinical Nursing 2003; 12(3):374.
3. Fader M et al. Journal of Advanced Nursing 2004; 45(6): 569.

Incontinence Management: Containment Devices

- External containment devices (limited to men)
  - Collection device fits around all or part of penile shaft
  - Attaches to reservoir that collects urine
  - Limits moisture exposure to penile shaft





Pharmacotherapy

- Principles of treatment
  - Combine with appropriate behavioral/ management intervention
  - Dosing medications: "start low and go slow"
  - Multiple medications available for OAB/ urge urinary incontinence; no agent FDA approved for managing stress UI
  - Use of antimuscarinics and cholinesterase reuptake inhibitors in residents with mild cognitive impairment associated with ↑ rate of cognitive decline that use of CHRI alone[1]

1. Sink KM et al. JAGS 2008; 56(5): 847.

Pharmacotherapy

- Tolterodine
  - Detrol IR
  - Detrol LA
- Fesoterodine
  - Toviaz ER
- Oxybutynin
  - Ditropan IR
  - Ditropan XL
  - Oxytrol (TD)
- Trospium
  - Sanctura XC
- Solifenacin
  - VESIcare
- Darifenacin
  - Enablex

Intermittent Catheterization

- Preferred over indwelling catheterization whenever feasible
- F315 tag states "sterile insertion & removal"

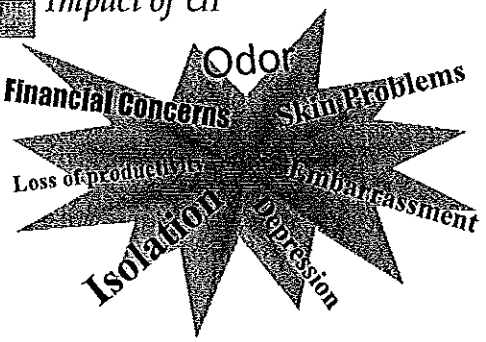
Indwelling Catheter: Restricted Indications under F315

- Urinary retention (± UI) ***not*** manageable by other techniques (***document PVRs >200ml***)
- Unable to manage retention/ UI with intermittent catheterization
- Short-term catheterization when healing a high stage (III or IV) pressure ulcers
- Palliative care setting when pain or immobility render toileting non-feasible

❖ Prevalence of IDC now as low as 5%[1]

1. Sarter C et al. Hosp Control & Epi 2005; 26(1): 369.

Impact of UI



Common Myths & Misconceptions

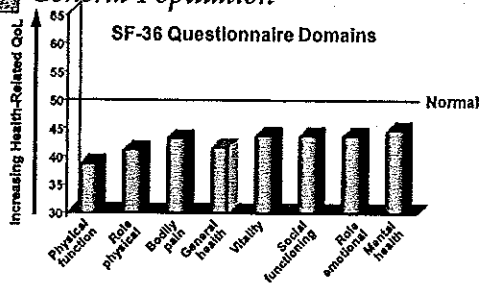
❖Loss of bladder control is a normal part of aging

❖There is no effective treatment

❖Only severe cases require treatment

Wyman JF, et al. *J Am Geriatr Soc.* 1990;38:282-288.

Impact on Quality of Life: General Population



Kobelt G, et al. *BJU Int.* 1999;83:583-590.

HRQOL & Incontinence: Nursing Home Residents

- New or existing UI persistent over 6 month associated with impaired QOL
- Magnitude of impairment significant and comparable to declining cognitive status or functional losses
- Negative impact especially prominent on social interaction domains of HRQOL

1. DeBeau CE et al. JAGS 2006; 54: 1325.

HRQOL & Incontinence: Resident and Family Perceptions

- Significant discrepancies found when care plan and executed care compared
- Residents' perceptions about changes in care more sensitive to observed changes in care interventions than those provided by family
- Direct satisfaction questions found less revealing that items querying discrepancy between care expectations and care provided

HRQOL & Incontinence: Staff Perspectives

- Incontinence ranked low among 6 geriatric syndromes commonly encountered in nursing home resident
  - Behavioral symptoms
  - Delirium
  - Pain
  - Falls
  - Weight loss
  - Incontinence
- Only CAN reported direct involvement with continence management; physicians ranked inconstance 6 of 6t, DON ranked it 6 of 6 but CAN 3rd of 6

1. Lawhorne LW, Et al. Journal of AMDA 2008; 9: 29.

Conclusions

- UI and FI are prevalent in nursing home residents; their presence is associated with declining cognitive and functional status
- Discrepancies exist between resident, family and care provides regarding its impact of HRQOL and its clinical significance
- Discrepancies also exist between evidence based care and care delivered; residents themselves are ***most*** sensitive to care improvement