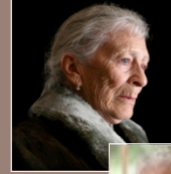


# URINARY INCONTINENCE IN OLDER ADULTS



## Goals of Presentation:



- Discuss the prevalence and significance of urinary incontinence (UI) in older adults
- Identify risk factors and common causes of UI
- Review assessment, diagnosis and treatment options related to the management of UI
- Discuss the challenges of UI in older adults with dementia
- Discuss informal caregiver supportive approaches and key factors in product selection—from a clinical perspective

## Prevalence of UI in Older Adults



- About 2 million suffer from this silent epidemic
- **30 - 60%** community-dwelling older women
- **10 - 35%** community-dwelling older men
- **Over 50%** institutionalized older adults
- Prevalence increases with **age and disability**

(Anger et al, 2006; Melville et al, 2005; Vaughan, et al. 2011)

- For older adults > 65, studies differ in reporting prevalence, but the commonality between these studies is the UI increases with age and disability.

# Types of UI



- UI is simply defined as loss of urine of any amount (Abrams, 2002)
  - **Urge**- hits suddenly without warning, no holding time, leak on the way to the bathroom
  - **Stress**- no urgency, occurs with activity (i.e. exercise, coughing, laughing, sneezing)and more common in women.
  - **Overflow**- mechanical forces (physical movement) on an over-distended bladder (can be from Benign Prostate Hypertrophy or Diabetes)
  - **Functional**- leak as a result of functional limitations (i.e. mobility problems, arthritis, stroke)

- Stress, Urgency and Mixed (a combination of the two) are the most common types of incontinence among older adults

## Causes of UI



- Abnormal changes in urinary system
- Loss of mental ability
- Physical disability (immobility)
- Infection
- Uncontrolled or undiagnosed medical condition (diabetes, estrogen depletion)
- Constipation
- Side effect of medication (diuretics, anticholinergics)

(Vaughan et al., 2011)

- Abnormal changes in urinary system – there are changes that happen to the bladder and structures in the pelvis as people age, that can play a role in the development of incontinence. However, UI should not be considered a normal part of getting older.
- Loss of mental ability – loss of the ability to understand and recognize the urge to urinate.
- Physical disability - difficulty physically getting to the bathroom, or loss of dexterity in fingers making it difficult to remove clothing in a timely manner.
- Urinary tract infection – sometimes a underlying infection can manifest itself as incontinence (urgency and frequency).
- Constipation – when the rectum becomes distended and filled with stool that can cause pressure on the bladder and causing irritation and urinary symptoms
- Side effect of medication – diuretics (CHF), blood pressure medications, cold/allergy medications (antihistamines – Benadryl) may contribute to incontinence.

## Causes Mnemonic - DIAPERS



- **D**elirium
- **I**nfection of the bladder or urethra
- **A**trophic vaginitis
- **P**harmaceuticals, including alcohol, caffeine and artificial sweeteners
- **E**xcess excretion
- **R**estricted mobility
- **S**tool impaction

- A simple way to remember the potential causes of UI in older adults is to use the mnemonic DIAPERS.
- Properly treating these conditions can prevent UI for about 30% of patients.

## Burdens of UI in Older Adults



- **Depression**
- **Decreased quality of life (QOL)**  
\*UI has a stronger influence on psychological QOL than cancer, diabetes and arthritis (Hawkins et al., 2011)
- **Emotional health (isolation)**
- **Major indication for nursing home placement**  
\*The annual nursing home admissions in the US related to UI is estimated at \$6 billion (Morrison, 2006)

- The psychological burden of UI has also been reported among family caregivers of older adults with incontinence (Gotoh et al. 2009)

## Case Study 1 – Work Up



- 70-year-old female
- Has a strong urge to urinate and leaks on the way to the bathroom
- Leaks a little when she coughs or sneezes hard
  - ▣ What type of UI do you think she is experiencing?



## UI Evaluation Should Include



- Focused History
- Physical Examination
- Functional Assessment
- Urinalysis
- Post-void residual urine volume
- \*Urinary Incontinence Evaluation Form**
- Click on or copy and paste the link below to access the UI Evaluation Form
  - [http://www.gericareonline.net/tools/eng/urinary/attachments/UI\\_Tool\\_3\\_Evaluation.pdf](http://www.gericareonline.net/tools/eng/urinary/attachments/UI_Tool_3_Evaluation.pdf)

## Focused UI History...



### Type

- Do you leak urine during physical activity such as coughing, sneezing, lifting, or exercising?
- Do you get the urge to go and can't make it without leaking?

### Onset & Duration

### Severity

- Frequency of leakage
- Need for absorbent products
- Degree of bother to the patient

### Symptom Progression

- Better, worse, about the same?

## Focused UI History...



### **Lower Urinary Tracts Symptoms**

- Urgency, frequency, nocturia, dysuria, weak stream, straining to void, etc.
- AUA-7 (American Urological Association Symptom Inventory-7; a 7-item screening tool for UI) (Svatek et al., 2005)

### **Constipation**

### **Fluid Intake & Bladder Irritants**

- Type (caffeine, ETOH, artificial sweeteners)
- Volume
- Timing

### **Previous Treatments**

- Affects on UI

- The AUA consists of 7 symptoms: Incomplete emptying, frequency, intermittency, urgency, decreased FOS, straining, nocturia.

# Medical & Surgical History & Physical Examination



- Medical, neurological history
- Genitourinary surgeries
- Medications, including OTC
- Habits (tobacco use, ETOH)



## **Brief Neurological Exam**

- Gait
- Lower extremity strength & reflexes
- Cogwheel rigidity
- Sphincter tone & voluntary

## **Rectal & Pelvic Exam**

- Pelvic floor muscle strength
- Vaginal atrophy
- Prostate enlargement
- Skin

# Functional Assessment



- Brief cognitive assessment (MMSE, Clock Draw, Mini-cog, MOCHA)
  
- ADL and IADLs (toileting dependency)
  
- Physical mobility (manual dexterity, history of falls)

## Urinalysis and Post Void Residual



- Urinalysis to rule out infection
- Post void residual (PVR) to measure amount of urine left in bladder after voiding
  - Ultrasound or catheter
  - Acute UI or suspected retention
  - > 150-200 mL

## Case Study 1 – Work Up



- 70-year old female
- Has a strong urge to urinate and leaks on the way to the bathroom.
- Leaks a little when she coughs or sneezes hard
  
- Work up
  - **Hx:** No meds including OTC; drinks only water
  - **Physical:** unremarkable
  - **UA:** normal
  - **Cognition:** Mini-Cognitive exam is negative
  - **Function:** lives alone, toilets independently
  - **PVR:** 35 mL
  
- **Diagnosis? Mixed (Stress and Urge Incontinence)**
- **Treatment Options?**



# Treatment Options

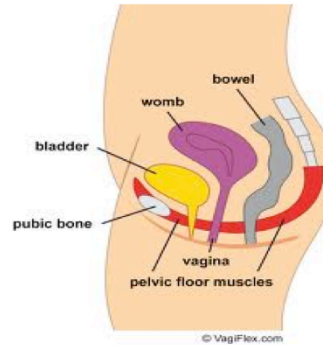
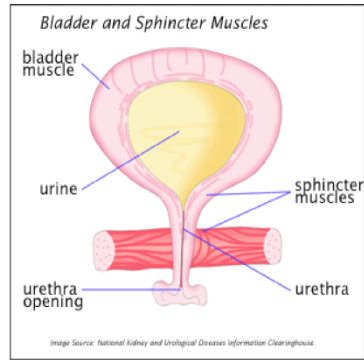


- **Pelvic floor muscle exercises (Kegels)**
  - Instruction w/home practice
  - Biofeedback, electrical stimulation
- **Self monitoring (bladder diaries)**
- **Lifestyle Changes**
  - Gradual caffeine reduction/elimination
  - Weight loss
  - Fluid management
- **Bladder Training**
- **Medications** Antimuscarinics, Alpha-adrenergic antagonists (selective vs. non-selective), 5-alpha reductase inhibitors

- About 80% of people with incontinence can be helped/cured.



# Pelvic Floor Muscle Exercises (Kegels)



*“Squeeze like you’re trying to hold back gas”*

- Use the following link for a guide to teaching Kegel exercises.

<http://www.med.umich.edu/bowelcontrol/patient/teaching/umkegel.pdf>

# Urge UI Suppression – “Freeze & Squeeze”

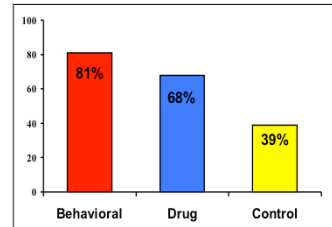


## When the urge strikes...

- Stop and stay still
- Squeeze pelvic floor muscles
- Relax rest of body
- Concentrate on suppressing urge
- Wait until the urge subsides
- Walk to bathroom at normal pace

(Markland et al., 2011)

Treatment for Urge Incontinence in Women



## Stress UI Strategy – “Squeeze before you Sneeze”



- For stress UI squeeze pelvic floor muscles before sneezing, coughing, or lifting



## UI Product Selection – Key Factors



- Gender (boxers vs. briefs)
- Volume of leakages
- Cost & budget
- Availability of products
- Timing of leakages (day vs. night)
- Mobility & function
- Quality of Life (caregiver & care-recipient)
- Maintain dignity

- In terms of product selection, clinicians uniquely positioned and can be extremely helpful in guiding caregivers towards the appropriate products to help their needs. In our clinic, here are some of the key factors we consider...

## Case Study 2 – Product Selection

- **Mr. B has a history of Parkinson's disease and is experiencing UI**
  - ▣ **Function and Cognition** – Although Mr. B' Parkinson's disease is somewhat advanced he is still able (cognitively and functionally) to participate in his care and manage his leakages independently.
  - ▣ **Age** – not a concern in this case.
  - ▣ **Cost** – not a concern in this case.
  - ▣ **Pre-existing Caregiver Burden** – Mr. B's wife is experiencing significant burden in caring for him.
  - ▣ **Priority of Goals** – managing leakages overnight.
  - ▣ **Etiology of Condition** – abnormal changes in urinary system
  - ▣ **Additional Social Support** – daughter



## Case Study 2 – Product Selection



- The volume of leakages was important to consider because certain products are better equipped in managing certain types of leakages. Recommend the smallest or least intrusive product available that can appropriately manage the condition.
- Since Mr B. is a male there are external urinary devices available and with the help of the nursing staff we were able to train him on applying it and caring for it himself.
- Cost & budget were not an issue for this couple, but it should always be considered.
- Dignity → Mr. B was very clear that he would not wear pads or briefs of any kind.
- After months of working with Mr. and Mrs. B, they were able to take an overnight trip to visit their daughter without incident.

## When to refer to a specialist...



- Most UI can be treated by primary care providers
- Consider referral for:
  - ▣ recurrent urinary tract infections
  - ▣ post void residual > 200 mL
  - ▣ pelvic pain w/ UI
  - ▣ hematuria (asymptomatic)
  - ▣ UI with new neurologic symptoms



(Vaughan et al. , 2011)

# A Discussion About Dementia and Urinary Incontinence



Nicole Davis  
MSN, ANP-BC, GNP-BC

- Nicole Davis-is an Adult and Gerontological Nurse Practitioner with expertise in urinary incontinence, the needs of the aging, and using Telehealth to support family caregivers.
- Ms. Davis will talk about her experience in caring for older adults with UI and dementia and supporting family caregivers.
- Ms. Davis addresses the prevalence and challenges of UI in dementia and the key role of family caregivers.
- Click on or copy and paste the weblink below to listen to the podcast
  - <https://gsu.sharestream.net/ssdcms/i.do?u=893776aba2ac41f>

Use the following link to access another podcast with Nicole Davis titled, **Moving Beyond the Leakages: Practical Strategies to Manage Incontinence**. You will Learn to:

- Understand the challenges and issues related to caring for an older adult with urinary incontinence
- Learn practical tips to manage urinary incontinence
- Identify strategies to promote toileting safety, reduce risk of falls, and care for skin
- Learn strategies to manage stress

[http://www.caregiver.org/caregiver/jsp/content\\_node.jsp?nodeid=2600](http://www.caregiver.org/caregiver/jsp/content_node.jsp?nodeid=2600)



## Conclusion



- UI is not an inevitable part of aging
- UI is amenable to treatment in many cases and can be managed by primary care providers
- Behavioral treatments are effective options for older adults with UI
- Consider family caregiver burden and needs related to the management of UI

## References

- Abrams, P., Cardozo, L., Fall, M., Griffiths, D., Rosier, P., Ulmsten, U... Wein, A. (2002). The standardisation of terminology of lower urinary tract function: Report from the Standardisation Sub-committee of the International Continence Society. *Neurourology and Urodynamics*, 21(2), 167-178.
- Anger, J., Saigal, C., & Litwin, M. (2006). The prevalence of urinary incontinence among community dwelling adult women: Results from the National Health and Nutrition Examination Survey. *The Journal of Urology*, 175(2), 601-604.
- Gotoh, M., Matsukawa, Y., Yoskikawa, Y., Funahashi, Y., Kato, M., & Hattori, R. (2009). Impact of urinary incontinence on the psychological burden of family caregivers. *Neurourology and Urodynamics*, 28(6), 492-496. doi: 10.1002/nu.20675
- Hawkins, K., Pernarelli, J., Ozminkowski, R., Bai, M., Gaston, S., Hommer, C....Yeh, C. (2011). The prevalence of urinary incontinence and its burden on the quality of life among older adults with Medicare supplement insurance. *Quality of Life Research*, 20(5), 723-732. doi: 10.1007/s11136-010-9808-0
- Markland, A. D., Vaughan, C. P., Johnson, T. M. 2nd, Burgio, K. L., & Goode, P.S. (2011). Incontinence. *Medical Clinics of North America*, 95(3), 539-554. doi: 10.1016/j.mcna.2011.02.006
- Melville, J., Katon, W., Delaney, K., & Newton, K. (2005). Urinary incontinence in US women: A population-based study. *Archives of Internal Medicine*, 165(5), 537-542.
- Morrison, A., & Levy, R. (2006). Fraction of nursing home admissions attributable to urinary incontinence. *Value in Health (Wiley-Blackwell)*, 9(4), 272-274.
- Svatek, R., Roche, V., Thornberg, J., & Zimmern, P. (2005). Normative values for the American Urological Association Symptom Index (AUA-7) and short form Urogenital Distress Inventory (UDI-6) in patients 65 and older presenting for non-urological care. *Neurourology And Urodynamics*, 24(7), 606-610.
- Vaughan, C., Goode, P., Burgio, K., & Markland, A. (2011). Urinary incontinence in older adults. *The Mount Sinai Journal of Medicine*, 78(4), 558-570. doi: 10.1002/msj.20276