# Evaluation and Management of Stress and Urge Urinary Incontinence in Older Women

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# Urinary Incontinence (UI)

- Definition:  the involuntary loss of urine in sufficient amount or frequency to constitute a social and/or health problem.

# Prevalence

- 3-55% depending on the definition used and age of the population studied.
- Twice as prevalent in women as compared to men.
- Increases with advancing age:  17-55%of older women compared with 12-42% of younger women.

# Impact of UI

- CLINICAL:  skin irritation and breakdown, recurrent UTIs, increased risk of falls
- PSYCHOSOCIAL:  isolation, depression, dependency, caregiver burden, institutionalization
- FINANCIAL:  UI supplies, laundry, labor, management of complications

# Normal Urination

- Voiding:  parasympathetic control
  - Detrusor muscle contracts
  - Sphincter tone relaxes
  - Bladder pressure exceeds urethral pressure

- Urine Storage:  sympathetic control
  - Urethral pressure exceeds bladder pressure

# TYPES OF URINARY INCONTINENCE

# STRESS INCONTINENCE

- Characterized by losses of small volumes of urine with increases in intraabdominal pressure (e.g. sneezing, coughing, lifting)
- 2 Types:
  - Anatomic stress incontinence 2° anatomical changes resulting in bladder and bladder neck hypermobility
  - Intrinsic sphincter deficiency 2° functional damage to the urethral sphincter mechanism

# URGE INCONTINENCE

- Also called OverActive Bladder (OAB)
- Most frequent type in elders
- Characterized by an uncontrollable need to void with the loss of large or small amounts of urine; may include frequency, nocturia, enuresis
- Causes:  abnormal detrusor muscle contractions, local bladder irritation, detrusor hyperreflexia or detrusor instability

# MIXED INCONTINENCE

- Characteristics:  patients present with  the combination of stress and urge incontinence
- Focus on the type that seems to predominate and trouble the patient

# Modifiable Factors Independently Associated with UI in Women

- Gynecological
- Urological and Gastrointestinal
- Comorbid Diseases
- Medications
- Smoking
- Caffeine
- High BMI
- Functional Impairment

# Nonmodifiable Factors Associated with UI in Women

- Gynecological Factors
- Pregnancy Related Factors
- Age
- White Race
- Higher Education
- Presence of 2 or More Comorbid Diseases

# EVALUATION OF WOMEN WITH URINARY INCONTINENCE

- History
  - Self-reported Symptom Questionnaires
    - Tested in community-dwelling women
    - Urogenital Distress Inventory (UDI-6)
      - Assists in differentiating between stress and urge UI
    - Incontinence Impact Questionnaire (IIQ-7)
      - Assesses the degree of symptom distress and quality of life issues associated with UI

# UDI-6

- Patient's responses help to distinguish between stress or urge as their most likely type of UI.

**UROGENITAL DISTRESS INVENTORY SHORT FORM (UDI-6)**

Please answer each question by checking the best response. While answering these questions, please consider your symptoms over the last 3 months. We realize that you may not be having problems in some of these areas, but please fill out this form as completely as possible.

| Do you experience, and if so, how much are you bothered by... | Not at all | Somewhat | Moderately | Quite a Bit |
|---|---|---|---|---|
| Frequent urination | | | | |
| Leakage related to feeling of urgency | | | | |
| Leakage related to physical activity, coughing, or sneezing | | | | |
| Small amounts of leakage (drops) | | | | |
| Difficulty emptying bladder | | | | |
| Pain or discomfort in lower abdominal or genital area | | | | |

# IIQ-7

- Scoring: The average score of the items responded to is calculated. The average, ranging from 0-3, is multiplied by 33 1/3 to put scores on a scale of 0-100.

**INCONTINENCE IMPACT QUESTIONNAIRE-SHORT FORM (IIQ-7)**

Some people find that accidental urine loss may affect their activities, relationships, and feelings. The questions below refer to areas in your life that may have been influenced or changed by your problem. For each question, circle the response that best describes how much your activities, relationships, and feelings are being affected by urine leakage.

| Has urine leakage affected your... | Not at all | Slightly | Moderately | Greatly |
|---|---|---|---|---|
| 1. Ability to do household chores (cooking, housecleaning, laundry)? | 0 | 1 | 2 | 3 |
| 2. Physical recreation such as walking, swimming, or other exercise? | 0 | 1 | 2 | 3 |
| 3. Entertainment activities (movies, concerts, etc.)? | 0 | 1 | 2 | 3 |
| 4. Ability to travel by car or bus more than 30 minutes from home? | 0 | 1 | 2 | 3 |
| 5. Participation in social activities outside your home? | 0 | 1 | 2 | 3 |
| 6. Emotional health (nervousness, depression, etc.)? | 0 | 1 | 2 | 3 |
| 7. Feeling frustrated? | 0 | 1 | 2 | 3 |

# Reference:


- Uebersax, J.S., et.al., & the Continence Program for Women Research Group. (1955). Short forms to assess life quality and symptom distress for urinary incontinence in women: the Incontinence Impact Questionnaire and the Urogenital Distress Inventory, *Neurology and Urodynamics, 14*(2). 131-139.

- The Women's Health Center of Excellence for Research, Leadership, Education (WHCoE) administers the distribution and use of these two questionnaires. On request, they will send copies of the self-administered instruments and scoring materials for each instrument. Requests may be made at the website: www.wakehealth.edu/Research/WHCOE/IIQ-and-UDI-Instrument.htm.


# HISTORY (cont.):

- Frequency of episodes
- Conditions of urine loss
- Timing of urine loss (day/night)
- Relationship to medication treatments
- Voiding habits
- Fluid intake
- UTI history
- Constipation

# HISTORY (cont.):

- Bladder Diary
  - Most important initial assessment method
  - Simple to do
  - Record the numbers of voiding and incontinence episodes
  - Include a frequency and volume chart that includes fluid intake and urine output volumes
  - Record over 2-3 days and review

# EXAMINATION

- Directed at the organ systems that could be implicated in UI
- General:  mobility, cognition, peripheral edema
- Abdominal exam
- Neurological screen
- Pelvic exam

# CLINICAL TESTS

- Urine leakage with cough or valsalva
- Urinalysis
- Post void residual volume
- Additional testing, cystometry can be done in women in whom previous treatment has failed or prior to invasive or surgical treatments

# NONSURGICAL TREATMENT

- Treatment can be initiated after the evaluation has been completed and you have a good sense of the type of UI you are treating.
- Surgical treatment is only indicated for a portion of women with stress incontinence and will not be addressed here.

# Treatment of **Urge** Incontinence

- Fluid management
- Behavior modification/bladder training
  - Pelvic muscle training
  - Scheduled voiding intervals
  - Suppression of urge with distraction or relaxation techniques
- Pharmacotherapy with antimuscarinic or anticholinergic drugs that suppress bladder contractions

# Anticholinergic Drugs

- Inhibit involuntary detrusor contractions
- Better than placebo in subjective cure or improvement rates
- Most common side effect is dry mouth
- Tolterodine (Detrol LA) 4mg daily
- Oxybutynin ER 5-15 mg daily
- Use with caution in elderly due to ADEs

# Treatment of **Stress** Incontinence

- Pelvic Floor Muscle Training
  - Recommended by WHO/ICI
  - More effective than no treatment at all
  - Taught by digital palpation of the levator ani muscle
  - Allow 3-4 months before determining success
  - 3 sets of 8-12 contractions sustained for 6-8 seconds, 3-4x/week

# Treatment of **Mixed** Incontinence

- 2 coexisting disorders of stress UI and detrusor overactivity
- Management targeted at treating both problems
  - Behavior modification
  - Fluid management
  - Pelvic floor re-education
- Pharmacotherapy with imipramine

# SUMMARY

- Acknowledge the effect of UI on quality of life for your women patients
- Use history to assess worst symptoms and to formulate treatment goals
- Exclude reversible disorders
- Examine for neurological, gynecological, and urological disorders
- Initiate non-surgical options based on type of UI
- Consider referral to a specialist for complex presentations or failed treatments

# THANK YOU