Urinary Incontinence and Urinary Frequency

Clare Hawkins, MD, MSC, FAAFP

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Dr. Hawkins splits his time between practicing family medicine in private practice in Houston, Texas, and managing a palliative care home-visiting service across the United States for Aspire Health. He also manages Renaissance Physicians, a large independent physician association (IPA). He is a recent past president of the Texas Academy of Family Physicians, and he was a recent member of the AAFP’s Commission on Health of the Public and Science and chair of the commission’s Subcommittee on Clinical Practice Guidelines. With 30 years of experience as a family medicine educator and more than 15 years serving as faculty for the AAFP, Dr. Hawkins has presented on a variety of medical topics.
Learning Objectives

1. Incorporate current guidelines for diagnosis in patients presenting with urinary problems.

2. Coordinate referral to a urologist or urogynecologist if initial diagnosis is unclear; or red flags such as hematuria, obstructive symptoms or recurrent urinary tract infections are present.

3. Counsel patients regarding first-line treatment options, including behavioral therapy and lifestyle modifications, emphasizing adherence and follow-up.

4. Prescribe second or third line treatment options if first-line therapies are unsuccessful, coordinating referral and follow-up care for surgical treatment as necessary.

Audience Engagement System

Step 1

Step 2

Step 3
Definition: Stress Incontinence

- Stress Incontinence: is the symptom of urinary leakage due to increased abdominal pressure, which can be caused by activities such as sneezing, coughing, exercise, lifting, and position change.

Definition: Urgency (or Overactive Bladder)

- Urgency urinary incontinence (UUI) is the symptom of urinary leakage that occurs in conjunction with the feeling of urgency and a sudden desire to urinate that cannot be deferred.
### Urinary Incontinence ICD 10

<table>
<thead>
<tr>
<th>Name</th>
<th>Code</th>
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<tbody>
<tr>
<td>Unspecified Urinary Incontinence</td>
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<tr>
<td>Stress Incontinence (M &amp; F)</td>
<td>N39.3</td>
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<tr>
<td>OAB</td>
<td>N32.81</td>
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<tr>
<td>Urge Incontinence</td>
<td>N39.41</td>
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<td>Mixed Incontinence</td>
<td>N39.46</td>
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<td>Other unspecified</td>
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### Urinary Incontinence ICD 10 contd

<table>
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<td>Recurrent &amp; Persistent Hematuria</td>
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<tr>
<td>UTI</td>
<td>N39.0</td>
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<tr>
<td>Incontinence without sensory awareness</td>
<td>N39.42</td>
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<tr>
<td>Post-void dribbling</td>
<td>N39.43</td>
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<tr>
<td>Nocturnal Enuresis</td>
<td>N39.44</td>
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### Miscellaneous ICD 10- CPT

<table>
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<tr>
<th>Name</th>
<th>Code</th>
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<td>Persons encountering health services for other counseling and medical advice, not elsewhere classified</td>
<td>Z71.-</td>
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<tr>
<td>Other symptoms and signs involving the genitourinary system</td>
<td>R39.8-</td>
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<tr>
<td>CPT</td>
<td></td>
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<tr>
<td>Nutritional Therapy</td>
<td>97802-97804</td>
</tr>
<tr>
<td>Time Based face-to-face / &gt; 50% counseling/ coordinating</td>
<td>992xx</td>
</tr>
</tbody>
</table>

### GUIDELINES:
American College of Physicians ‘14
Endorsed AAFP 2015

- Behavioral Treatments > Pharmacological
- Weight Loss & General Exercise are very valuable
- Some Situations require referral or surgery
ACP guidelines 2014 Endorsed AAFP 2015

1. **Pelvic floor muscle training** should be first-line treatment for women with stress urinary incontinence (UI)
2. **Bladder training** should be first-line treatment for women with urgency UI
3. Women with mixed UI should be treated with pelvic floor training combined with bladder training
4. Systemic pharmacologic therapy **should not** be prescribed for stress UI


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ACP guidelines 2014 Endorsed AAFP 2015

5. Pharmacologic treatment should be prescribed to women with urgency UI if bladder training was unsuccessful
6. Choice of pharmacologic agent should be based on tolerability, adverse effect profile, ease of use, and cost
7. Weight loss and exercise should be recommended for obese women with UI
Screening for Urinary Incontinence in Women: A Recommendation From the Women's Preventive Services Initiative

- Screening women for urinary incontinence annually
- Assess whether they experience UI and whether it affects activities and quality of life
- Refer women for further evaluation and treatment if indicated.

Risk Factors

- Pelvic floor trauma with SVD
- Menopause
- Hysterectomy
- Obesity
- UTI
- Chronic Cough
- Constipation
- Functional/ Cognitive Impairment
AUA guidelines 2012

• First-line behavioral therapy treatments,
• Oral antimuscarinics second-line treatments
• Surgical or intradetrusor botulinumtoxin A as potential third-line treatments


Prevalence

• 13 m Women in the US
• Associated with profound adverse effects on quality of life
• 17% of women and 16% of men over 18 years old have overactive bladder (OAB)
• Estimated 12.2 million adults have urge incontinence

Urinary Incontinence Prevalence 51%

- 13% in young, nulligravid women
- 25% in reproductive-age
- 47% in middle-age
- 55% in postmenopausal
- 75% in older women (Twice the rate in Men)
  - 32% to 51% have episodes daily
  - 20% to 32% weekly

Ouslander, JG Management of Overactive Bladder NEJM 2004 350 (8) 786-99

Racial Differences?

- 44% of White
- 29% of African American
- 35% of Hispanic women
Costs of Urinary Incontinence Treatment

- $16 billion to $26 billion each year, placing the cost burden on par with that associated with depression or Alzheimer’s disease
- Plus increases risk of falls, fractures
- Is the reason for 6% of nursing home admissions for elderly women (3 billion)


Social Cost of Incontinence

- Decreased Functional Status
  - Decreased Mobility, Exercise and Deconditioning
- Decreased Quality of Life
- Social Isolation
### Lower Urinary Tract Conditions- OAB

<table>
<thead>
<tr>
<th>Condition</th>
<th>Mechanism</th>
<th>Implication</th>
</tr>
</thead>
<tbody>
<tr>
<td>UTI</td>
<td>Inflammation</td>
<td>Antibiotic</td>
</tr>
<tr>
<td>Obstruction</td>
<td>Detrusor over activity</td>
<td>Surgical Intervention</td>
</tr>
<tr>
<td>Impaired Bladder Contraction</td>
<td>Urinary retention and Bladder capacity</td>
<td>Drug review&lt;br&gt;Bladder Training&lt;br&gt;Interim catheterization</td>
</tr>
<tr>
<td>Bladder Abnormalities (ie tumors)</td>
<td>Intra-vesical blockage</td>
<td>Sterile hematuria prompts cystoscopy</td>
</tr>
<tr>
<td>F. Estrogen Deficiency</td>
<td>Atrophic vaginitis</td>
<td>Topical Estrogen</td>
</tr>
<tr>
<td>F. Sphincter Weakness</td>
<td>Leakage into proximal urethra</td>
<td>Topical Estrogen, pelvic exercises</td>
</tr>
<tr>
<td>M. Prostate Enlargement</td>
<td>BPH or Cancer</td>
<td>Alpha blocker, 5 alpha-reductase inh. Or Surgery</td>
</tr>
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</table>

Adapted from Table 1 Ouslander JG Management of Overactive Bladder NEJM 350(8) 786-99

### Neurologic Conditions Causing OAB

<table>
<thead>
<tr>
<th>Condition</th>
<th>Mechanism</th>
<th>Implication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke, Parkinson's, Alzheimer's, MS</td>
<td>Cortical inhibition of bladder impaired Neurogenic OAB</td>
<td>Compensation techniques for impaired cognition or mobility</td>
</tr>
<tr>
<td>Spinal Cord: MS, stenosis, disc herniation</td>
<td>Neurogenic detrusor over activity or retention</td>
<td>Neurologic evaluation, urodynamic testing</td>
</tr>
<tr>
<td>Peripheral Innervation: DM neuropathy or nerve injury</td>
<td>Low functional bladder capacity or retention</td>
<td>Neurologic evaluation</td>
</tr>
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</table>
Systemic & Functional Conditions

<table>
<thead>
<tr>
<th>Condition</th>
<th>Mechanism</th>
<th>Implication</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHF, Venous insufficiency</td>
<td>Volume Overload</td>
<td>AM dosing, salt restriction, support hose, leg elevation</td>
</tr>
<tr>
<td>DM</td>
<td>Osmotic diuresis/ polyuria</td>
<td>Euglycemia</td>
</tr>
<tr>
<td>Sleep Disorders</td>
<td>Nocturia</td>
<td>Polysomnography</td>
</tr>
<tr>
<td>Abnormal arginine vasopressin</td>
<td>Impaired secretion</td>
<td>Selected desmopressin therapy</td>
</tr>
<tr>
<td>Caffeine, alcohol</td>
<td>Polyuria</td>
<td>Moderation of intake</td>
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<tr>
<td>Constipation</td>
<td>Fecal impaction</td>
<td>Bowel regimen</td>
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<tr>
<td>Impaired mobility</td>
<td>Interfere with toileting</td>
<td>Address environment</td>
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<tr>
<td>Psychological</td>
<td>Anxiety &amp; Learned voiding dysfunction</td>
<td>Therapy &amp; psychopharmacology</td>
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</table>

Clinical Case #1: Ms. Hobson

- A 62 yo F comes to see you for a check up. Mammography, colorectal screening, vaccination and Pap testing (once every 5 years), and smoking cessation are performed.
- Although she doesn’t volunteer a problem with continence, you note that she has responded “yes” to incontinence on your admission questionnaire.
Poll Question 1

You should do the following:

A. Refer to Uro-gynecologist
B. Order Urodynamic Studies
C. Pelvic Ultrasound
D. Get more history

More History

• She had three children born SVD, began with progressive urine leakage with activity starting at age 50, managed with exercise restriction and pads
• She has not sought help for this in the past
• A friend had successful surgery and she requests a referral to this doctor for the same procedure
• She has gained several pounds per year and current BMI 33
Poll Question 2

Her incontinence diagnosis is:

A. Stress Urinary Incontinence (Stress UI)
B. Urgency Incontinence, (Urgency UI)
C. Mixed Incontinence
D. Overactive Bladder

Poll Question 3

The next appropriate step is:

A. Refer to her friend’s specialist
B. Weight Loss and Pelvic Floor Training Exercises
C. Pharmacotherapy with an antimuscarinic
D. Vaginal estrogen replacement
SVD and Incontinence

- Stress UI during pregnancy affects up to 32% of primiparous women
- 30% of premenopausal women and 50% of postmenopausal women have had pelvic floor disorder like anal or urinary incontinence or prolapsed uterus
- Does Cesarean prevent it? (very minimally)


Definitions

- Stress Urinary Incontinence, (Stress UI):
  - Urethral sphincter failure associated with intra-abdominal pressure and results in inability to retain urine when laughing, coughing, or sneezing
- Urge Urinary Incontinence, (Urge UI):
  - Involuntary loss of urine associated with a sudden & compelling urge to void
- Mixed Incontinence, (Mixed UI):
- Overactive Bladder, (OAB):
  - Constellation of sx that includes urinary urgency, (with or without UI), usually accompanied by frequency, & nocturia.
Other

- Overflow Incontinence
  - Incontinence due to the bladder being full (retention)

- Functional Incontinence
  - Cognitive or physical barriers

Pelvic Floor Muscle Training

1. PFMT for stress UI first line (strong rec /high quality evidence)
2. PFMT & Bladder Training for Mixed (strong/high)
3. Bladder Training for urgency UI (weak/low)

ACP Guideline continued

4. Recommend against pharmacotherapy for stress UI (strong/low)

5. Recommend pharmacotherapy for Urgency UI if bladder training unsuccessful (strong/high)
   - tolerability, SE, ease of use, and cost

6. Weight loss & exercise for obese women with UI (strong/moderate)

Nonpharmacologic Treatments for UI

- **PFMT** (Pelvic Floor Muscle Training): Kegels, voluntary contraction of pelvic floor muscles
- **PFMT** with biofeedback using vaginal EMG: visual feedback when properly contracting muscles
- **Bladder Training**: Behavioral Therapy that includes extending time between voiding
- **Continence Service**: Treatment program with nurses and clinicians trained in identifying, dx and treating patients with UI.
### Evidence Review for Stress UI

<table>
<thead>
<tr>
<th>Treatment/Outcome</th>
<th>Studies</th>
<th>Patients</th>
<th>Outcome/Effect</th>
<th>Absolute RR</th>
<th>NNT</th>
<th>Evidence Quality</th>
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</thead>
<tbody>
<tr>
<td>PFMT to achieve continence</td>
<td>10</td>
<td>959</td>
<td>improve</td>
<td>0.30</td>
<td>3</td>
<td>High</td>
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<tr>
<td>PFMT to Improve UI</td>
<td>6</td>
<td>510</td>
<td>Improve</td>
<td>0.41</td>
<td>2</td>
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<td>PFMT with probe biofeedback Continence</td>
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<td>185</td>
<td>Improve/NS</td>
<td>0.49 (-1.0 to 1.08)</td>
<td>NA</td>
<td>Low</td>
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<tr>
<td>PFMT &amp; Probe to Improve UI</td>
<td>4</td>
<td>383</td>
<td>improve</td>
<td>0.39</td>
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<td>High</td>
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### Evidence Review for Stress UI Comparative

<table>
<thead>
<tr>
<th>Treatment/Outcome</th>
<th>Studies</th>
<th>Patients</th>
<th>Outcome/Effect</th>
<th>Absolute RR</th>
<th>NNT</th>
<th>Evidence Quality</th>
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</thead>
<tbody>
<tr>
<td>Supervised vs self PFMT Continence</td>
<td>4</td>
<td>300</td>
<td>NS</td>
<td>0.20</td>
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<tr>
<td>Improved</td>
<td>4</td>
<td>283</td>
<td>NS</td>
<td>0.14</td>
<td>NA</td>
<td>Mod</td>
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<tr>
<td>PFMT &amp; Probe vs PFMT Continence</td>
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<td>542</td>
<td>NS</td>
<td>0.08</td>
<td>NA</td>
<td>High</td>
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<td>PFMT &amp; Cones: continence</td>
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<td>320</td>
<td>NS</td>
<td>-0.11</td>
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<td>Mod</td>
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<tr>
<td>PFMT &amp; Cones: improved</td>
<td>4</td>
<td>440</td>
<td>NS</td>
<td>0.01</td>
<td>NA</td>
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### Evidence Review for Urge UI

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<th>Outcome/Effect</th>
<th>Absolute RR</th>
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<tr>
<td>Bladder training, improved</td>
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<td>2</td>
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<td>PFMT &amp; bladder training vs bladder training</td>
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<td>NS</td>
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### Evidence Review for Mixed UI

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<th>Patients</th>
<th>Outcome/Effect</th>
<th>Absolute RR</th>
<th>NNT</th>
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<td>Weight Loss</td>
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<td>386</td>
<td>Improved</td>
<td>0.27</td>
<td>4</td>
<td>Moderate</td>
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</table>
Weight Loss

- Weight loss of more than 5% had a reduction of at least 50% in the frequency of incontinence
- All incontinence episodes, urge-incontinence episodes, and stress-incontinence episodes


Physical Activity

- In addition to specific bladder floor exercises, activity provides overall benefit
- Must overcome the fear of “going out” and not being near a bathroom
- Benefit is in addition to weight loss.

A Hidden Symptom

• Most do not tell their doctor

Questions

• Focused history and ask specific questions, such as the time of onset, symptoms, and frequency

“Do you have a problem with urinary incontinence (of your bladder) that is bothersome enough that you would like to know more about how it could be treated?”
  – Increases appropriate care by 15%
HEDIS Measures H.O.S. Survey

- Medicare Health Outcomes Survey
  - Survey question to Medicare Members
  - Management of Urinary Incontinence in Older Adults
- Will your patients remember to answer that you’ve discussed this?

Physical Exam

- “Above the waist”
  - CV exam: signs of volume overload
  - Abd exam: masses, tenderness
  - Neuro exam
- Genital Exam
  - Atrophy, cystocele, rectocele, pelvic masses
- Rectal Exam
  - (M. Prostate enlargement), rectal mass, stool impaction
Laboratory Testing

- Urinalysis (with culture if infection suspected)
- Renal function
- Fasting Glucose

Office Testing - Post Void Residual

- Controversial in primary care setting at first presentation
- Catheter or Ultrasound
- <50mls complete voiding
- >200mls suggests obstruction/detrusor under-activity
Micturition

Low vesicular pressure until 300-400 mls
Coordinated detrusor contraction & Reduced urethral resistance

Involuntary bladder contractions can cause urgency and may precipitate urine loss, depending on the response of the sphincter


Bladder Innervation
Autonomic Innervation

- Acetylcholine is predominant
- Interacts with M3 Muscarinic receptors
- Stimulation of β3-adrenergic receptors relaxation of bladder smooth muscle


Urodynamic Testing

- Routine testing is not recommended
- “Gold Standard”
- Expensive, Invasive, specialized equipment
Urinary Obstruction/ Overflow

- Calcium channel blockers
- (NSAIDs)
- α-adrenergic agonists
- β-adrenergic antagonists
- Opioids
- Sedative-hypnotics
- Antipsychotics
- Antiparkinsonian agents
- Anesthetics

Bladder Training

- Remain stationary when urgency occurs
- Concentrate on decreasing the sense of urgency through rapid successive pelvic muscle contractions, mental distraction (e.g., mathematical problem solving), and relaxation techniques (e.g., deep breathing)
- After controlling the sense of urgency, walk slowly to the bathroom and void
- After mastering this, attempt to extend the time that urination can be postponed; aim to extend the interval by 30 to 60 minutes
- Continue this process until voiding occurs every three to four hours without incontinence

Hersh L & Salzman B, Clinical Management of Urinary Incontinence in Women AFP 2013;87(9):634-640
Habit Training

• Check for wetness at intervals to determine when the patient urinates
• Bring the patient to the toilet, or provide commode or bedpan at intervals slightly shorter than the patient’s normal voiding interval

Pelvic Floor Training

• Assist the patient in isolating pelvic floor muscles by instructing her to hold urine during urination and to feel pelvic muscle floor contraction (while avoiding buttock, abdomen, or thigh muscle contraction)
• Ask the patient to perform three sets of eight to 10 contractions (held for six to eight seconds) three to four times weekly; extend contraction time to 10 seconds, if possible
• Continue regimen for at least 15 to 20 weeks
Getting Ahead of Incontinence

• Prompted Voiding
  – Remind the patient to use the toilet at regular intervals, ideally timed to the patient’s normal voiding intervals

• Scheduled Voiding
  – Bring the patient to the toilet at regular intervals
  – (e.g., every two to three hours)

Pharmacologic Treatments

• Duloxetine:
  – Worsens or did not achieve continence in 2 studies, but improved UI in 4 but with a high cost of adverse effects (9 studies NNH 8)

• Intravaginal Estriol: (Not FDA approved)
  – One study improved ARR=.7 NNT 1 (quality low)
Pharmacological Antimuscarinic  NNT 7-13

- Darfenacin (ENABLEX) $88-105 /month
- Fesoterodine (TOVIAZ) $290/month
- Oxybutynin (DITROPAN) $18-23, (ER = $18-35)
- Tolterodine (DETROL or DETROL LA) $50-100
- Trospium (SANCTURA) ($65-118)
- Solifenacin (VESICARE) ($75-130)

Good Rx Prices July 2019. www.goodrx.com

Comparing Antimuscarinic

- SE common: dry mouth, constipation, blurred vision. NNT harm 6-12
- Dizziness more frequent for trospium
- Dry mouth and insomnia for oxybutynin
- Tolterodine has some risk for hallucinations
- More d/c with fesoterodine than tolterodine
  NNTH = 58
Comparisons

- Solifenacin had lowest risk for d/c where oxybutynin was highest
- Tolterodine and oxybutynin had same benefits, but tolterodine caused fewer harms
- Only Darifenacin and Tolterodine had d/c risk = placebo

B-Adrenergic Receptor Agonist

- Mirabegron (MYRBETRIQ) acts on beta 3-adrenergic receptors to relax the detrusor
- one to two fewer incontinence episodes per day
- S/E = nausea, diarrhea, constipation, dizziness, and headache
- Increased blood pressure occasionally
- Urinary retention risk increases when used with an anticholinergic
Mirabegron

- (Goodrx = > $300/mo)
- NNT 12 to achieve continence
- NNT 9 to improve
  - Few d/c due to SE , but some nasopharyngitis and gastrointestinal disorders

Poll Question 4

67 y.o. WF c/o 3 episodes of urinary incontinence. Each times she didn’t make it to the bathroom. One happened while shopping, one driving and one at church. She is now hesitant to go out. The most likely cause of her problem is:

A. Stress
B. Urge
C. Overflow
D. Functional
Poll Question 5

A 75 y.o. female nursing home resident consistently urinates in her bed. This frustrates the nursing staff who ask for an indwelling foley. Because of recent surgery she is unable to walk to the bathroom and has side-rails up. What is the most likely diagnosis

A. Urge
B. Stress
C. Functional
D. Overflow

Poll Question 6

58 yo man presents to your clinic c/o “Leaking Urine”. The most appropriate next step in the evaluation of this patient is to:

A. Obtain a post void residual
B. Conduct urodynamic testing
C. History and Physical Exam
D. Obtain a urinalysis
Poll Question 7

62 year old male has recently begun therapy with antihistamine therapy for allergies and already takes amitriptyline 50 mg at H.S. for sleep and chronic pain. He now finds himself leaking urine. This is most likely:

A. Urge
B. Stress
C. Functional
D. Overflow

Poll Question 8

42 yo AA Woman states she has had several episodes of leaking urine. Mostly with coughing or sneezing and has had to begin wearing absorbent undergarments. She has 2 children, both SVD with long second stage. The best first-line treatment option for this patient is:

A. Tolterodine ER 4mg daily
B. Pessary Placement
C. Oxybutynin 5mg tid
D. Kegel Exercises
Summary

- Non-pharmacologic rx effective at managing UI with large benefit and low risk
- PFMT alone and/or in combination with bladder training, biofeedback and weight loss with exercise for obese women were effective
- No good head-to-head evidence comparison to recommend one antimuscarinic over another

High-Risk/ Alarm Symptoms

- Previous Urinary Incontinence Surgery
- Persistent UTI
- Constitutional Sx
- Poor renal function
- Saddle Anesthesia
- Recent back trauma
- Pelvic surgery (especially recent)
Other Treatments for SI

- Pessary
- Incontinent Tampons
- Vaginal Inserts
- Urethral Plug
- Injection of filler around urethra
- Radiofrequency denaturation
- Augment urethral closure

- Support and stabilize the bladder neck and urethra
  - midurethral slings
  - pubovaginal slings
  - Needle urethropexy
  - Retropubic urethropexy
    - Burch
    - Marshall- Marchetti-Krantz

Surgical Treatment of Female Stress Urinary Incontinence: AUA/ SUFU Guideline 2017

Pessary

Periurethral Injections

- No convincing evidence when compared with sham therapy with injectable saline
- For women without urethral hypermobility may be more cost-effective than retropubic mid-urethral slings, transobturator or traditional sling procedure


BOTOX?

- RCT of Onabotulinumtoxin A
- 249 women
- Anticholinergic Therapy 5/d to 3.4 / d
- Botox 5/d to 3.3/ d
- Less dry mouth, more complete resolution but higher urinary retention and UTI

AUA 2017 Guideline for SI

In index patients considering surgery for stress urinary incontinence, physicians may offer the following options: (Strong Recommendation; Evidence Level: Grade A)

- Midurethral sling (synthetic)
- Autologous fascia pubovaginal sling
- Burch colposuspension
- Bulking agents
AUA 2017 Guideline for SI

• Prior to selecting midurethral synthetic sling (MUS) procedures for the surgical treatment of stress urinary incontinence in women, physicians must discuss the specific risks and benefits of mesh as well as the alternatives to a mesh sling

FDA warning re: transvaginal mesh

• Patients considering Mid Urethral Sling (MUS) should be made aware of the prior FDA public health notifications regarding the use of transvaginal mesh to treat SUI or pelvic organ prolapse
• (https://www.fda.gov/medicaldevices/safety/alertsandnotices/ucm262435.htm)
• Be advised of possible mesh-related risks;
  – Vaginal exposure (which can also be associated with dyspareunia)
  – Perforation into the lower urinary tract or other neurovascular or visceral symptoms
  – Greater risk of mesh erosion associated with diabetes and a history of smoking
  – Previous Urologic surgery for incontinence
From AUA 2019 Guideline for OAB

- Clinicians may offer intradetrusor onabotulinumtoxinA (100U) as third-line treatment in the carefully-selected and thoroughly-counseled patient who has been refractory to first- and second-line OAB treatments.
  - The patient must be able and willing to return for frequent post-void residual evaluation and able and willing to perform self-catheterization if necessary. Standard (Evidence Strength Grade B)

AUA/SUFU Guideline: Published 2012; Amended 2014, 2019

Other Treatments for OAB

- Clinicians may offer peripheral tibial nerve stimulation (PTNS) as third-line treatment in a carefully selected patient population. Recommendation (Evidence Strength Grade C)

- Clinicians may offer sacral neuromodulation (SNS) as third-line treatment in a carefully selected patient population characterized by severe refractory OAB symptoms or patients who are not candidates for second-line therapy and are willing to undergo a surgical procedure. Recommendation (Evidence Strength Grade C)

AUA/SUFU Guideline: Published 2012; Amended 2014, 2019
Practice Recommendations

1. Pelvic floor muscle training should be first-line treatment for women with stress urinary incontinence (UI). SORT A
2. Bladder training should be first-line treatment for women with urgency UI. Sort A
3. Women with mixed UI should be treated with pelvic floor training combined with bladder training SORT B
4. Systemic pharmacologic therapy should not be prescribed for stress UI SORT A

5. Pharmacologic treatment should be prescribed to women with urgency UI if bladder training was unsuccessful SORT B
6. Weight loss and exercise should be recommended for obese women with UI SORT A
7. Annual Screening for Urinary Incontinence has many advocates but has limited evidence to support it

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Questions
References

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• AUA 2019 Guideline on Overactive Bladder