

Urinary Incontinence and Urinary Frequency

Clare Hawkins, MD, MSC, FAAFP



ACTIVITY DISCLAIMER

The material presented here is being made available by the American Academy of Family Physicians for educational purposes only. Please note that medical information is constantly changing; the information contained in this activity was accurate at the time of publication. This material is not intended to represent the only, nor necessarily best, methods or procedures appropriate for the medical situations discussed. Rather, it is intended to present an approach, view, statement, or opinion of the faculty, which may be helpful to others who face similar situations.

The AAFP disclaims any and all liability for injury or other damages resulting to any individual using this material and for all claims that might arise out of the use of the techniques demonstrated therein by such individuals, whether these claims shall be asserted by a physician or any other person. Physicians may care to check specific details such as drug doses and contraindications, etc., in standard sources prior to clinical application. This material might contain recommendations/guidelines developed by other organizations. Please note that although these guidelines might be included, this does not necessarily imply the endorsement by the AAFP.



DISCLOSURE

It is the policy of the AAFP that all individuals in a position to control content disclose any relationships with commercial interests upon nomination/invitation of participation. Disclosure documents are reviewed for potential conflict of interest (COI), and if identified, conflicts are resolved prior to confirmation of participation. Only those participants who had no conflict of interest or who agreed to an identified resolution process prior to their participation were involved in this CME activity.

All individuals in a position to control content for this session have indicated they have no relevant financial relationships to disclose.

The content of my material/presentation in this CME activity will not include discussion of unapproved or investigational uses of products or devices.

The logo for FMX, consisting of the letters 'FMX' in a bold, white, sans-serif font, positioned on the right side of an orange horizontal bar with diagonal white stripes.

Clare Hawkins, MD, MSC, FAAFP

Regional Medical Officer, Aspire Health in Texas

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.

The logo for FMX, consisting of the letters 'FMX' in a bold, white, sans-serif font, positioned on the right side of an orange horizontal bar with diagonal white stripes.

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.

FMX

Audience Engagement System



FMX

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

Name	Code
Unspecified Urinary Incontinence	N39.4-
Stress Incontinence (M & F)	N39.3
OAB	N32.81
Urge Incontinence	N39.41
Mixed Incontinence	N39.46
Other unspecified	N39.498

Urinary Incontinence ICD 10 contd

Name	Code
Recurrent & Persistent Hematuria	N02.-
UTI	N39.0
Incontinence without sensory awareness	N39.42
Post-void dribbling	N39.43
Nocturnal Enuresis	N39.44

Miscellaneous ICD 10- CPT

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

GUIDELINES:

American College of Physicians '14 Endorsed AAFP 2015

- American Academy of Family Physicians (AAFP). Urinary Incontinence in Women. Clinical Practice Guideline 2015; <http://www.aafp.org/patient-care/clinical-recommendations/all/urinary-incontinence.html>
- 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**

American Academy of Family Physicians (AAFP). Urinary Incontinence in Women. Clinical Practice Guideline 2015;
<http://www.aafp.org/patient-care/clinical-recommendations/all/urinary-incontinence.html>

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 FREE

- 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.

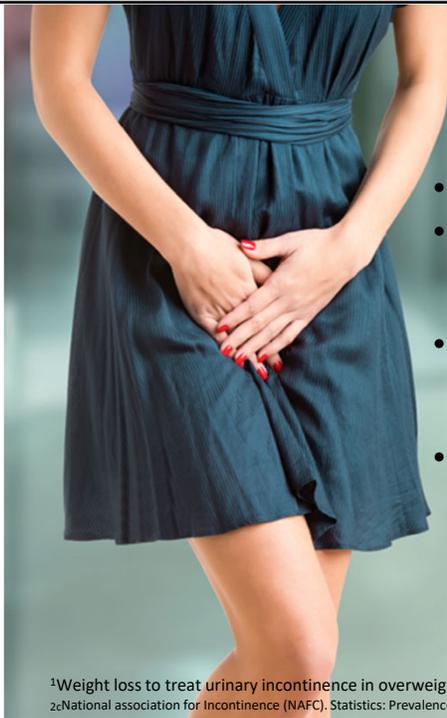
Risk Factors

- 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

Gormley EA, Lightner DJ, Burgio KL, et al. Diagnosis and treatment of overactive bladder (non-neurogenic) in adults: AUA/SUFU guideline. The Journal of urology. Dec 2012;188(6 Suppl):2455-2463



Prevalence

- 13 m Women in the US
- Associated with profound adverse effects on quality of life¹
- 17% of women and 16% of men over 18 years old have overactive bladder (OAB)
- Estimated 12.2 million adults have urge incontinence²

¹Weight loss to treat urinary incontinence in overweight and obese women. N Engl J Med 2009;360(5):481-90

²National association for Incontinence (NAFC). Statistics: Prevalence. 2012; <http://www.nafc.org/media/statistics/prevalence-2/>. Accessed June, 2013.

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 disease¹
- Plus increases risk of falls, fractures
- Is the reason for 6% of nursing home admissions for elderly women (3 billion)

Hartmann KE, McPheeters ML, Biller DH, et al. Treatment of overactive bladder in women. Evidence report/technology assessment. Aug 2009(187):1-120.

Social Cost of Incontinence

- Decreased Functional Status
 - Decreased Mobility, Exercise and Deconditioning
- Decreased Quality of Life
- Social Isolation

Lower Urinary Tract Conditions- OAB

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

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

Neurologic Conditions Causing OAB

Condition	Mechanism	Implication
Stroke, Parkinson's, Alzheimer's, MS	Cortical inhibition of bladder impaired Neurogenic OAB	Compensation techniques for impaired cognition or mobility
Spinal Cord: MS, stenosis, disc herniation	Neurogenic detrusor over activity or retention	Neurologic evaluation, urodynamic testing
Peripheral Innervation: DM neuropathy or nerve injury	Low functional bladder capacity or retention	Neurologic evaluation

Systemic & Functional Conditions

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

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)

Cacciatore A, et al. Putative protective effects of cesarean section on pelvic floor disorders. Journal of Prenatal Medicine. 2010;4(1):1-4.

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)

Qaseem, Amir et al. ACP Guideline on nonsurgical management of urinary incontinence in women. Annals of Internal Medicine vol 161, #6. 16 Sept 2014.
<http://annals.org/article.aspx?articleid=1905131> accessed August 6, 2016

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

Treatment/ Outcome	Studies	Patients	Outcome/Ef fect	Absolute RR	NNT	Evidence Quality
PFMT to achieve continence	10	959	improve	0.30	3	High
PFMT to Improve UI	6	510	Improve	0.41	2	High
PFMT with probe biofeedback Continence	2	185	Improve/NS	0.49 (-.1-1.08)	NA	Low
PFMT & Probe to Improve UI	4	383	improve	0.39	3	High

Evidence Review for Stress UI Comparative

Treatment/ Outcome	Studies	Patients	Outcome/Ef fect	Absolute RR	NNT	Evidence Quality
Supervised vs self PFMT Continence	4	300	NS	0.20	NA	High
Improved	4	283	NS	0.14	NA	Mod
PFMT & Probe vs PFMT Continence	6	542	NS	0.08	NA	High
PFMT & Cones: continence	3	320	NS	-0.11	NA	Mod
PFMT & Cones: improved	4	440	NS	0.01	NA	Mod

Evidence Review for Urge UI

Treatment/ Outcome	Studies	Patients	Outcome/ Effect	Absolute RR	NNT	Evidence Quality
Bladder training, improved	2	283	Improved	.43	2	Low
PFMT & bladder training vs bladder training	2	271	NS	.0001	NA	Moderate

Evidence Review for Mixed UI

Treatment/ Outcome	Studies	Patients	Outcome/E ffect	Absolute RR	NNT	Evidence Quality
PFMT & Bladder Training Continence	5	1369	Improved	0.17	6	High
PFMT & training Improved	4	1171	improved	0.39	3	High
Continence Service	3	3939	Improved/ NS	0.30 (-0.01-0.6)	NA	Moderate
Weight Loss	2	386	Improved	0.27	4	Moderate

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

Weight loss to treat urinary incontinence in overweight and obese women. N Engl J Med 2009;360(5):481-90

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.

Physical activity and incident urinary incontinence in middle-aged women. J Urol 2008;179(3):1012-6; discussion 1016-7

A Hidden Symptom

- Most do not tell their doctor



Adobe Stock License # 344625

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

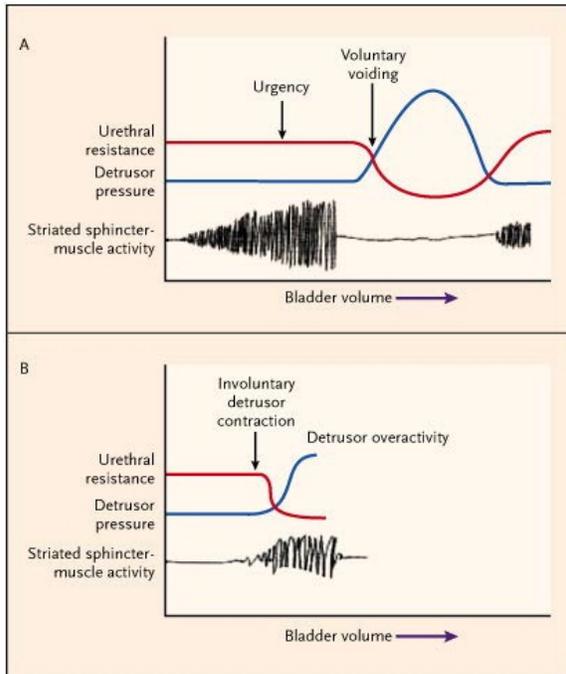
Office Testing - Post Void Residual

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

Adobe Stock License # 84659089



Micturition

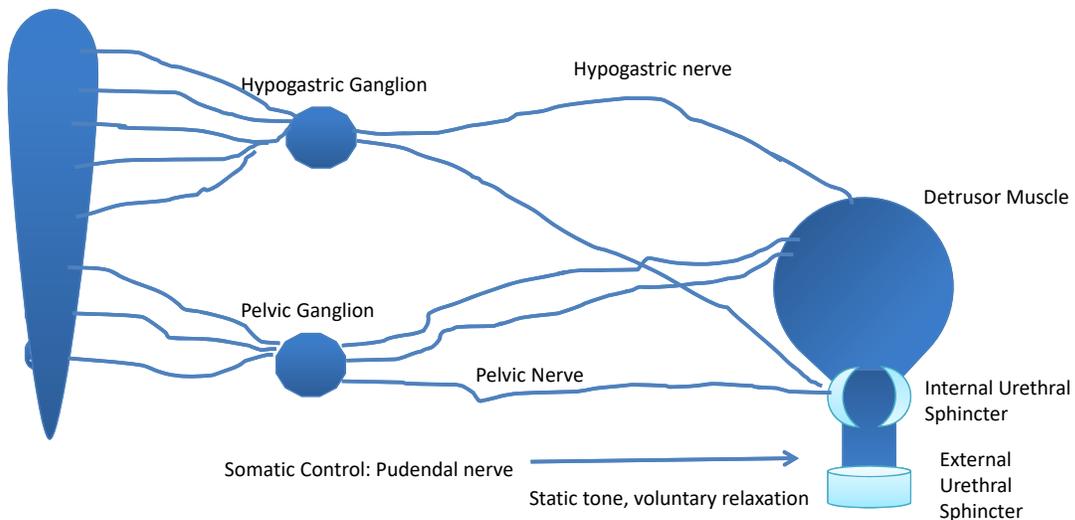


← Low vesicular pressure until 300-400 mls
Coordinated detrusor contraction
& Reduced urethral resistance

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

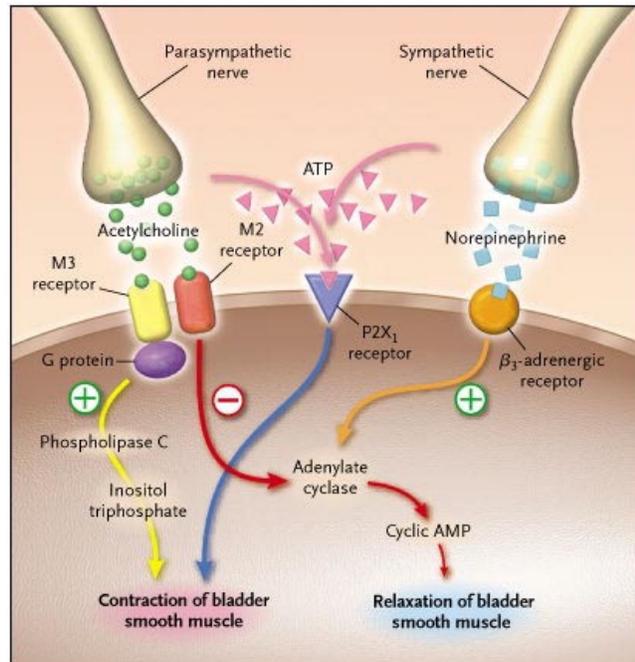
Ouslander JG. N Engl J Med 2004;350:786-799.

Bladder Innervation



Autonomic Innervation

- Acetylcholine is predominant
- Interacts with M3 Muscarinic receptors
- Stimulation of β_3 -adrenergic receptors relaxation of bladder smooth muscle



Ouslander JG. N Engl J Med 2004;350:786-799.

Urodynamic Testing

- Routine testing is **not** recommended
- “Gold Standard”
- Expensive, Invasive, specialized equipment

Urinary Obstruction/ Overflow



License # AdobeStock_95531598

- 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

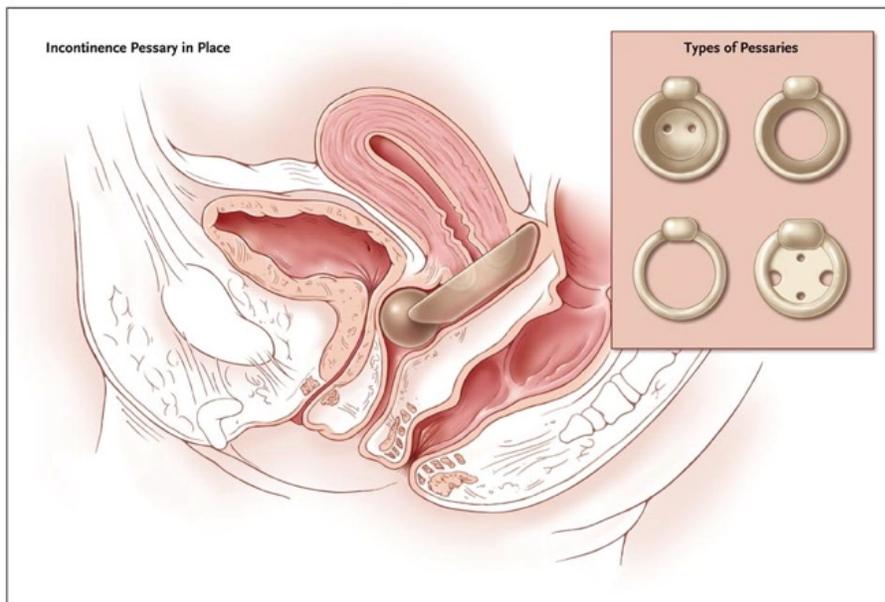
High-Risk/ Alarm Symptoms

- 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

Rogers RG. N Engl J Med 2008;358:1029-1036

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

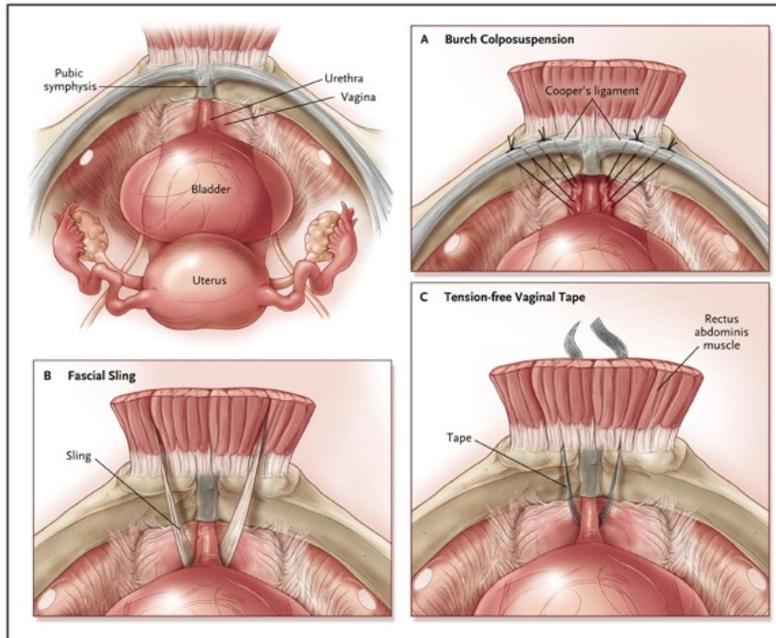
Kirchin V, Page T, Keegan PE, Atiemo KO, Cody JD, McClinton S, Aluko P. Urethral injection therapy for urinary incontinence in women. Cochrane Database Syst Rev. 2017 Jul 25;7:CD003881

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

N Engl J Med 2012; 367:1803-1813

Surgical Procedures



Rogers RG. N Engl J Med 2008;358:1029-1036

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

Practice Recommendations

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

Am Fam Physician. 2019 Feb 1;99(3):194
Ann Intern Med. September 4, 2018;169(5):320–328.
<http://annals.org/aim/fullarticle/2697085/screening-urinary-incontinence-women-recommendation-from-women-s-preventive-services>. Accessed 7 30 19

Contact Information

Clare Hawkins, MD drclarehawkins@gmail.com

Questions



FMX

References

- Qaseem, Amir et al. ACP Guideline on nonsurgical management of urinary incontinence in women. *Annals of Internal Medicine* vol 161, #6. 16 Sept 2014
- Weight loss to treat urinary incontinence in overweight and obese women. *N Engl J Med* 2009;360(5):481-90
- Hersh L & Salzman B, *Clinical Management of Urinary Incontinence in Women* AFP 2013;87(9):634-640
- Cacciatore A, Giordano R, Romano M, La Rosa B, Fonti I. Putative protective effects of cesarean section on pelvic floor disorders. *Journal of Prenatal Medicine*. 2010;4(1):1-4
- Visco AG et al. Anticholinergic Therapy vs. OnabotulinumtoxinA for Urgency Urinary Incontinence *N Engl J Med* 2012; 367:1803-1813

References

- AUA 2017 Guideline on Stress Urinary Incontinence
- AUA 2019 Guideline on Overactive Bladder