AUA Guidelines for Stress Urinary Incontinence

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Stress Urinary Incontinence (SUI)

- Common Problem
- Prevalence of SUI as high as 49%
- Surgical options varied
- This is 3rd SUI guideline
- Continual updates will be needed
Female incontinence ICS definition

- Stress urinary incontinence
  - The symptom is the complaint of involuntary leakage on exertion or on sneezing or coughing.
  - The sign is the observation of involuntary urinary loss from the urethra synchronous with exertion, sneezing, or coughing.
  - Urodynamic stress incontinence
    - Noted during filling cystometry
    - Defined as the involuntary leakage of urine during increases in abdominal pressure in the absence of a detrusor contraction

  - Abrams 2003
Background

• Systematic Review
  – Comprehensive literature search by ECRI

• Study designs:
  – Systematic reviews
  – Randomized controlled trials
  – Clinical trials
Aims of the Guideline

- Diagnostic workup and evaluation
- Counseling
- Non Surgical
- Surgical
- Special Cases
- Outcomes
Index patient

- Healthy female with SUI
- No previous SUI surgery
- Includes low stage prolapse
NON INDEX PATIENT

- > Stage 2 POP
- Mixed incontinence
- Mesh complications
- Neurogenic lower urinary tract dysfunction
- Elevated post void residual (PVR)
- Voiding dysfunction
- High body mass index (BMI)
- Recurrent SUI
- Advanced age
Initial Evaluation

In the initial evaluation of patients with stress urinary incontinence desiring to undergo surgical intervention, physicians should include the following components: (Clinical Principle)

- **Patient Evaluation**
  - History
  - Focused physical examination, including a pelvic examination
  - Objective demonstration of stress urinary incontinence
  - Assessment of post-void residual urine (any method)
  - Urinalysis
What type of urinary incontinence does this woman have?

- Systematic review of various methods for diagnosing urinary incontinence during office based assessment
- A meta-analysis of 10 cohort studies with 2,657 patients found that the presence of coughing, sneezing, lifting, walking, or running as initiators of incontinence increased the likelihood of SUI as the cause of urinary leakage, while their absence decreased the likelihood of SUI.
  - A woman with a positive clinical history had a 74% chance of having SUI.
  - A woman with a negative clinical history had a 34% chance of having SUI.

Holroyd-Leduc et al. JAMA 2008
Additional testing

Physicians should perform additional evaluations and testing in patients being considered for surgical intervention who have the following conditions: (Expert Opinion)

- Inability to demonstrate SUI on examination
- Concomitant overactive bladder symptoms
- Failure of prior anti-incontinence surgery
- Prior pelvic prolapse surgery
- Any non-index patient
Diagnostic workup

• Questionnaires
  - Limited number of studies for each questionnaire results in low level evidence
  - If minimal bother strong consideration should be given to non-surgical management
• Pad test
  – High sensitivity low specificity
• Q Tip Test
  – Moderate strength evidence suggests that a positive adds little value for diagnosis
• Stress Tests
  – Has highest sensitivity and specificity for detecting SUI on urodynamics
CYSTOSCOPY

• Cystoscopy **should not** be performed in the index patient **unless** there is concern for urinary tract abnormalities

• Cystoscopy should be performed as clinically indicated
Urodynamic Testing

Physicians may omit urodynamic testing for the index patient desiring treatment when stress urinary incontinence is clearly demonstrated. (Evidence Level: Grade B)

- **VALUE Trial**
  - Large multicenter RCT, n= 630
  - Compared office evaluation alone to urodynamics with office evaluation
  - Showed no difference in outcomes as measured by clinical reduction in complaints measured by the Urinary Distress Inventory and the Patient Global Impression of Improvement (PGI-I)

Degree of bother

In patients wishing to undergo treatment for stress urinary incontinence, the degree of bother that their symptoms are causing them should be considered in their decision for therapy. (Expert Opinion)

• If the patient expresses minimal subjective bother strong consideration should be given to non-surgical therapy.
• Patients should be counseled on the risks, benefits, and alternatives to any intervention they may choose in addition to the concept that the primary goal of treatment is to improve QOL.
Complications

Physicians should counsel patients on potential complications specific to the treatment options

- Persistent/Recurrent SUI
- Voiding Dysfunction
- Obstruction
- Mesh complications
- UTI
- Pain
- Other
Risks unique to mesh

Prior to selecting midurethral synthetic sling 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.

“The focus (of counseling) should be on the benefits, the potential risks, and the FDA safety communication regarding MUS, thereby allowing the patient to make a goal-oriented, informed decision as to how she would like to approach her SUI treatment.”
Mesh Complication Risk Factors

- There appears to be a greater risk of mesh erosion associated with
  - Diabetes
  - History of smoking
  - Older age
  - Large incisions
  - Previous vaginal surgery
NON SURGICAL MANAGEMENT

Physicians may offer the following treatment options

- Continence pessary
- Vaginal inserts
- Pelvic floor muscle exercises
Surgical management

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
The Trial of Mid-urethral Slings (TOMUS)

- Multicenter, randomized equivalence trial comparing outcomes with retropubic and transobturator midurethral slings in women with stress incontinence.
- N=597
- Looked at short (one and two year) and long (five year) outcomes of retropubic and transobturator slings
  - Short-term analyses demonstrated statistical equivalence between the two procedures
  - Long term analysis showed slight advantage in dry rates with retropubic sling

Richter, H. et al. Retropubic versus Transobturator Midurethral Slings for Stress Incontinence. NEJM. 2010
The Stress Incontinence Surgical Treatment Efficacy (SISTEr) Trial

- Multicenter, randomized clinical trial comparing Burch colposuspension to autologous fascia pubovaginal sling
- N = 655
- Outcome data to five years
  - Favored the autologous fascia PVS over the Burch colposuspension due to the lower retreatment rates (4% versus 13%).
- Women who underwent the sling procedure had urinary tract infections, difficulty voiding, and postoperative urge incontinence.

Surgical Management

In index patients who select midurethral sling surgery, physicians may offer either the retropubic or transobturator midurethral sling. (Moderate Recommendation; Evidence Level: Grade A)

• When performing transobturator sling in women with stress-predominant urinary incontinence surgeons may perform either the in-to-out or out-to-in TMUS technique.

• b. When performing retropubic sling in women with stress-predominant urinary incontinence surgeons may perform either the bottom-up or the top-down approach.
Surgical Management

• Physicians may offer single-incision slings to index patients
  – Patient must be informed as to the immaturity of evidence regarding their efficacy and safety
Surgical Management

• Physicians should not place a mesh sling if the urethra is inadvertently injured at the time of planned midurethral sling procedure.
SPECIAL CASES
Special Cases

- **Intrinsic sphincter deficiency**
  - Pubovaginal slings
  - Retropubic midurethral slings
  - Urethral bulking agents
Special Cases

• Should not utilize a synthetic midurethral sling in patients undergoing concomitant urethral reconstruction

• Should strongly consider avoiding the use of mesh in patients undergoing stress incontinence surgery who are at risk for poor wound healing
  – Following radiation therapy, presence of significant scarring, poor tissue quality
Special Cases

- Repair of pelvic organ prolapse
  - Midurethral sling
  - Pubovaginal sling
  - Burch colposuspension
Outcomes following vaginal Prolapse repair and mid Urethral Sling (OPUS) trial

- N = 327
- POPQ Stage 2 Prolapse with no SUI symptoms
- Retropubic MUS vs sham at the time of vaginal prolapse repair
- At 12 months, urinary incontinence was present in 27.3% of the sling group and 43.0% of the sham patients (P = 0.002)
- NNT = 6.3

Wei, J et al A Midurethral Sling to Reduce Incontinence after Vaginal Prolapse Repair NEJM 2012
Special Cases

Physicians may offer anti-incontinence procedures to the following patient populations after appropriate evaluation and counseling have been performed:

- Neurogenic Bladder
- Patients planning to bear children
- Diabetes
- Obesity
- Geriatric
OUTCOMES ASSESSMENT
OUTCOMES ASSESSMENT

• Physicians or their designees should communicate with patients within the early postoperative period to assess if patients are having any significant voiding problems, pain, or other unanticipated events.

• If patients are experiencing any of these outcomes, they should be seen and examined.

• Patients should be seen and examined within six months post-operatively. Patients with unfavorable outcomes may require additional follow-up.
"Hello, incontinence helpline - can you hold?"