# The trend and care pathway for management of stress urinary incontinence



### 洪焕程醫師

台北榮總婦女醫學部產科主任 台灣婦產科醫學會監事 台灣婦科醫學會秘書長 台灣婦女泌尿暨骨盆醫學會理事 台灣福爾摩莎婦女泌尿醫學會常務理事 2021-09-26

### Urinary incontinence

 (1) stress urinary incontinence(SUI), loss of urine occurring as a result of an increase in intraabdominal pressure due to effort or exertion or on sneezing or coughing;

 (2) urge urinary incontinence (UUI), involuntary leakage arising for no apparent reason and associated with urgency

 (3) mixed urinary incontinence (MUI), denoting the combination of both SUI and UUI.

### **SUI PREVALENCE**

prevalence of each type (SUI,UUI,MUI) of urinary incontinence in noninstitutionalized women is 49%, 21% and 29%

S. Hunskaar, K. Burgio, A. Diokno, A.R. Herzog, K. Hjälmås, M.C. Lapitan, Epidemiology and natural history of urinary incontinence in women, Urology 62 (Suppl. 1) (2003) 16–23

 Prevalence of SUI range between 10% and 40% of the post-menopausal female population.

## Pathogenesis of SUI

- Urinary continence: synergy between the structures that constitute the pelvic floor, the sympathetic and parasympathetic nervous systems, and the motor fibres of the pudendal nerves.
- SUI Factors: age, parity (especially with vaginal delivery) and obesity, as they are associated with a weakening of the pelvic floor support structures, resulting in urethral hypermobility

#### **Guidelines**



## Guideline of guidelines: urinary incontinence in women

Rachael D. Sussman\*, Raveen Syan† and Benjamin M. Brucker\*

\*Department of Urology, MedStar Georgetown University Hospital, Washington, DC, Department of Urology, Stanford School of Medicine, Stanford, CA, and Department of Urology, New York University Medical Center, New York, NY, USA

BJU Int 2020; **125:** 638–655

Guideline	Year of publication/most recent update
European Association of Urology (EAU)	2019
International Consultation on Incontinence (ICI)	2017
American College of Obstetrics and Gynecology/American Urogynecologic Society (ACOG)	2015
National Institute for Health and Care Excellence (NICE)	2019
American Urologic Association (AUA)/Society of Urodynamics, Female Pelvic Medicine and Urogenital Reconstruction (SUFU	J)
Surgical treatment of Stress Urinary Incontinence in Women (AUA/SUFU SUI)	2017
Urodynamic Studies in Adults (AUA/SUFU UDS)	2012
Diagnosis and Treatment of Overactive Bladder (Non-Neurogenic) in Adults: (AUA/SUFU OAB)	2019

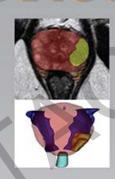




JOUNS!

# EUROPEAN Forward Faster. Together







#### HIGHLIGHTS

Augmented Reality to Guide Robot-assisted Radical Prostatectomy by L. Bianchi et al. Updated EAU Guidelines for Treatment-naive Metastatic Clear-cell Renal Carcinoma by J. Bedke et al. The STAR-CAP Prognostic System for Predicting Prostate Cancer by C. Würnschimmel et al. OLIGOPELVIS: Salvage treatment for Prostate Cancer Relapses by S. Supiot et al. Prevalence of Male Only Expert Panels at Urological Meetings by J. Teoh et al. European Urology Commitment to Gender Equity and Diversity by S. Psutka. Adjuncts to Minimally Invasive Treatment of Urethral Stricture in Men by K. Pang et al.

European Association of Urology www.europeanurology.com

2020 Impact Factor 20.096



#### Care Pathway for the Management and Referral of Urinary Incontinence in Women

HISTORY

How bothersome is the incontinence?

How frequent is the incontinence?

For how long has it been occurring?

What is the quantity of the leakage?

When does the patient leak urine?

- When performing some activity, such as coughing, lifting or exercise
- When they had the urge or feeling they needed to empty their bladder but could not get to the toilet fast enough
- Without activity or a sense of urgency
- · With both activity and a sense of urgency

CLINICAL ASSESSMENT

- · General health assessment
- Assess whether the patient has completed her family
- · Assess quality of life and desire for treatment
- Urinary symptom assessment (including bladder diary and questionnaire)
- · Physical examination: abdominal, pelvic and perineal
- Cough test to demonstrate if stress incontinence present
- . Urinalysis ± urine culture -> if infected, treat and reassess if appropriate
- · Assess oestrogen status and treat as appropriate
- Assess pelvic floor muscle function
- Assess post-void residual urine

PROVISIONAL DIAGNOSIS

STRESS URINARY
INCONTINENCE (SUI)
(incontinence when performing activity)

MIXED URINARY
INCONTINENCE (MUI)

(both incontinence types present - treat most bothersome symptom first)

URGE INCONTINENCE /
OVERACTIVE BLADDER (OAB)
(need to empty bladder but could
not get to the toilet fast enough)

FIRST LINE
MANAGEMENT

AUSTRALIAN

COMMISSION

ON SAFETY AND QUALITY IN HEALTH CARE

- . Consider continence products for temporary support during treatment
- Lifestyle interventions include weight loss and avoiding chronic straining (lifting, coughing or constipation) for all
  patients
- Supervised pelvic floor muscle therapy with nurse continence advisors and/or physiotherapists with a special interest in the pelvic floor
- Vaginal devices such as cones, weights, urethral support devices
- Bladder irritants such as caffeine and alcohol should be minimised for urge incontinence / OAB
- . Bladder retraining for urge incontinence / OAB
- Pharmacological treatments such as anticholinergics or beta-adrenergic agonists for urge incontinence / OAB

**REVIEW OF MANAGEMENT** 



SPECIALIST MANAGEMENT

This may include care by gynaecologists, urogynaecologists, urologists with a special interest in pelvic floor and geriatricians



No treatment



Non-surgical treatments



omplicated" Incontinence:

Debilitating severe incontinence

Incontinence associated with:

Patients with neurological

Patients using medications that cause an atonic bladder Voiding dysfunction

Significant post void residual OR Significant pelvic organ

Primary nocturnal incontinence

Recurrent incontinence

Recurrent infection

Pelvic irradiation

Suspected fistula

Incontinence with

prolapse OR

Nocturnal enuresis

Continuous incontinence

Radical pelvic surgery

Haematuria

ULTIDISCIPLINARY APPROACH

#### Care Pathway for the Management and Referral of Urinary Incontinence in Women

How bothersome is the incontinence?

How frequent is the incontinence?

For how long has it been occurring?

What is the quantity of the leakage?

When does the patient leak urine?

- When performing some activity, such as coughing, lifting or exercise
- When they had the urge or feeling they needed to empty their bladder but could not get to the toilet fast enough
- Without activity or a sense of urgency
- With both activity and a sense of urgency

CLINICAL **ASSESSMENT** 

- General health assessment
- Assess whether the patient has completed her family
- Assess quality of life and desire for treatment
- Urinary symptom assessment (including bladder diary and questionnaire)
- Physical examination: abdominal, pelvic and perineal
- Cough test to demonstrate if stress incontinence present
- Urinalysis ± urine culture -> if infected, treat and reassess if appropriate
- Assess oestrogen status and treat as appropriate
- Assess pelvic floor muscle function
- Assess post-void residual urine

**PROVISIONAL** DIAGNOSIS

**FIRST LINE** 

STRESS URINARY **INCONTINENCE (SUI)** (incontinence when performing activity)

MIXED URINARY INCONTINENCE (MUI)

(both incontinence types present - treat most bothersome symptom first)

**URGE INCONTINENCE /** OVERACTIVE BLADDER (OAB) (need to empty bladder but could not get to the toilet fast enough)

- Consider continence products for temporary support during treatment
- Lifestyle interventions include weight loss and avoiding chronic straining (lifting, coughing or constipation) for all
- Supervised pelvic floor muscle therapy with nurse continence advisors and/or physiotherapists with a special interest in the pelvic floor
- Vaginal devices such as cones, weights, urethral support devices
- Bladder irritants such as caffeine and alcohol should be minimised for urge incontinence / OAB
- Bladder retraining for urge incontinence / OAB
- Pharmacological treatments such as anticholinergics or beta-adrenergic agonists for urge incontinence / OAB

REVIEW OF MANAGEMENT

SPECIALIST MANAGEMENT

This may include care by gynaecologists, urogynaecologists, urologists with a special interest in pelvic floor and geriatricians



No treatment



Non-surgical treatments



Patient assessed as requiring operative management

AUSTRALIAN COMMISSION ON SAFETY AND QUALITYIN HEALTH CARE 4 4 d > ~ d Z 4 U S 

I

d

0

~

complicated" Incontinence:

Debilitating severe incontinence

Incontinence associated with:

Patients with neurological

Patients using medications that cause an atonic bladder

Significant post void residual

Primary nocturnal incontinence

Recurrent incontinence

Recurrent infection

Voiding dysfunction

Radical pelvic surgery

Significant pelvic organ

Pelvic irradiation

Suspected fistula

Incontinence with

prolapse OR

Nocturnal enuresis

Continuous incontinence

**Haematuria** 

#### **HISTORY**

How bothersome is the incontinence?

How frequent is the incontinence?

For how long has it been occurring?

What is the quantity of the leakage?

#### When does the patient leak urine?

- When performing some activity, such as coughing, lifting or exercise
- O When they had the urge or feeling they needed to empty their bladder but could not get to the toilet fast enough
- Without activity or a sense of urgency
- With both activity and a sense of urgency

# CLINICAL ASSESSMENT

- General health assessment
- Assess whether the patient has completed her family
- Assess quality of life and desire for treatment
- Urinary symptom assessment (including bladder diary and questionnaire)
- Physical examination: abdominal, pelvic and perineal
- Cough test to demonstrate if stress incontinence present
- Urinalysis ± urine culture -> if infected, treat and reassess if appropriate
- Assess oestrogen status and treat as appropriate
- Assess pelvic floor muscle function
- Assess post-void residual urine

# PROVISIONAL DIAGNOSIS

STRESS URINARY
INCONTINENCE (SUI)
(incontinence when performing activity)

MIXED URINARY
INCONTINENCE (MUI)
(both incontinence types present - treat
most bothersome symptom first)

URGE INCONTINENCE /
OVERACTIVE BLADDER (OAB)
(need to empty bladder but could
not get to the toilet fast enough)

# FIRST LINE MANAGEMENT

- Consider continence products for temporary support during treatment
  - Lifestyle interventions include weight loss and avoiding chronic straining (lifting, coughing or constipation) for all patients
- Supervised pelvic floor muscle therapy with nurse continence advisors and/or physiotherapists with a special interest in the pelvic floor
- Vaginal devices such as cones, weights, urethral support devices
- Bladder irritants such as caffeine and alcohol should be minimised for urge incontinence / OAB
- Bladder retraining for urge incontinence / OAB
- Pharmacological treatments such as anticholinergics or beta-adrenergic agonists for urge incontinence / OAB

## Initial treatment of SUI (EAU 2019)

#### Care Pathway for the Management and Referral of Urinary Incontinence in Women

HISTORY

How bothersome is the incontinence?

How frequent is the incontinence?

For how long has it been occurring?

What is the quantity of the leakage?

When does the patient leak urine?

- When performing some activity, such as coughing, lifting or exercise
- When they had the urge or feeling they needed to empty their bladder but could not get to the toilet fast enough
- Without activity or a sense of urgency
- With both activity and a sense of urgency

CLINICAL ASSESSMENT

- General health assessment
- Assess whether the patient has completed her family
- · Assess quality of life and desire for treatment
- Urinary symptom assessment (including bladder diary and questionnaire)
- · Physical examination: abdominal, pelvic and perineal
- Cough test to demonstrate if stress incontinence present
- . Urinalysis ± urine culture -> if infected, treat and reassess if appropriate
- · Assess oestrogen status and treat as appropriate
- · Assess pelvic floor muscle function
- Assess post-void residual urine

PROVISIONAL DIAGNOSIS

STRESS URINARY
INCONTINENCE (SUI)
(incontinence when performing activity)

MIXED URINARY
INCONTINENCE (MUI)
(both incontinence types present - treat
most bothersome symptom first)

URGE INCONTINENCE /
OVERACTIVE BLADDER (OAB)
(need to empty bladder but could
not get to the toilet fast enough)

FIRST LINE
MANAGEMENT

- . Consider continence products for temporary support during treatment
- Lifestyle interventions include weight loss and avoiding chronic straining (lifting, coughing or constipation) for all
  patients
- Supervised pelvic floor muscle therapy with nurse continence advisors and/or physiotherapists with a special interest in the pelvic floor
- Vaginal devices such as cones, weights, urethral support devices
- Bladder irritants such as caffeine and alcohol should be minimised for urge incontinence / OAB
- . Bladder retraining for urge incontinence / OAB
- Pharmacological treatments such as anticholinergics or beta-adrenergic agonists for urge incontinence / OAB

"Complicated" Incontinence:

- Recurrent incontinence
- · Debilitating severe incontinence

I

V

0

~

4

4

d

~

d

Z

4

-

- Incontinence associated with:
- Pain
- Haematuria
- Recurrent infection
- Patients with neurological conditions
- Patients using medications that cause an atonic bladder
- Voiding dysfunction
- Pelvic irradiation
- Radical pelvic surgery
- Suspected fistula
- Incontinence with
  - Significant post void residual
  - Significant pelvic organ prolapse OR
- Primary nocturnal incontinence
- Nocturnal enuresis
- Continuous incontinence

REVIEW OF MANAGEMENT

SPECIALIST MANAGEMENT

This may include care by gynaecologists, urogynaecologists, urologists with a special interest in pelvic floor and geriatricians



No treatment

1

Non-surgical treatments



AUSTRALIAN COMMISSION on SAFETY AND QUALITY IN HEALTH CARE

#### "Complicated" Incontinence:

- Recurrent incontinence
- Debilitating severe incontinence
- Incontinence associated with:
  - Pain
  - Haematuria
  - Recurrent infection
  - Patients with neurological conditions
  - Patients using medications that cause an atonic bladder
  - Voiding dysfunction
  - Pelvic irradiation
  - Radical pelvic surgery
  - Suspected fistula
- Incontinence with
  - Significant post void residual
     OR
  - Significant pelvic organ prolapse OR
  - Pelvic mass
- Primary nocturnal incontinence
- Nocturnal enuresis
- Continuous incontinence

#### SPECIALIST MANAGEMENT

This may include care by gynaecologists, urogynaecologists, urologists with a special interest in pelvic floor and geriatricians







#### Care Pathway for the Management and Referral of Urinary Incontinence in Women

HISTORY

How bothersome is the incontinence?

How frequent is the incontinence?

For how long has it been occurring?

What is the quantity of the leakage?

When does the patient leak urine?

- When performing some activity, such as coughing, lifting or exercise
- When they had the urge or feeling they needed to empty their bladder but could not get to the toilet fast enough
- Without activity or a sense of urgency
- · With both activity and a sense of urgency

CLINICAL ASSESSMENT

- · General health assessment
- Assess whether the patient has completed her family
- · Assess quality of life and desire for treatment
- Urinary symptom assessment (including bladder diary and questionnaire)
- · Physical examination: abdominal, pelvic and perineal
- · Cough test to demonstrate if stress incontinence present
- . Urinalysis ± urine culture -> if infected, treat and reassess if appropriate
- Assess oestrogen status and treat as appropriate
- · Assess pelvic floor muscle function
- Assess post-void residual urine

PROVISIONAL DIAGNOSIS STRESS URINARY
INCONTINENCE (SUI)
(incontinence when performing activity)

MIXED URINARY
INCONTINENCE (MUI)

(both incontinence types present - treat most bothersome symptom first) URGE INCONTINENCE /
OVERACTIVE BLADDER (OAB)
(need to empty bladder but could
not get to the toilet fast enough)

FIRST LINE
MANAGEMENT

- . Consider continence products for temporary support during treatment
- Lifestyle interventions include weight loss and avoiding chronic straining (lifting, coughing or constipation) for all
  patients
- Supervised pelvic floor muscle therapy with nurse continence advisors and/or physiotherapists with a special interest in the pelvic floor
- Vaginal devices such as cones, weights, urethral support devices
- Bladder irritants such as caffeine and alcohol should be minimised for urge incontinence / OAB
- Bladder retraining for urge incontinence / OAB
- Pharmacological treatments such as anticholinergics or beta-adrenergic agonists for urge incontinence / OAB

"Complicated" Incontinence:

- Recurrent incontinence
- Debilitating severe incontinence

I

V

0

~

4

4

⋖

~

d

Z

S

-

- Incontinence associated with:
  - Pain
- Haematuria
- Recurrent infection
- Patients with neurological conditions
- Patients using medications that cause an atonic bladder
- Voiding dysfunction
- Pelvic irradiation
- Radical pelvic surgery
- Suspected fistula
- Incontinence with
  - Significant post void residual OR
- Significant pelvic organ prolapse OR
- Primary nocturnal incontinence
- Nocturnal enuresis
- Continuous incontinence

REVIEW OF MANAGEMENT



SPECIALIST MANAGEMENT

This may include care by gynaecologists, urogynaecologists, urologists with a special interest in pelvic floor and geriatricians



1

Non-surgical treatments



Patient assessed as requiring operative management

AUSTRALIAI COMMISSIOI on SAFETYAN QUALITYIN HEALTH CAR

## **Specialized management**

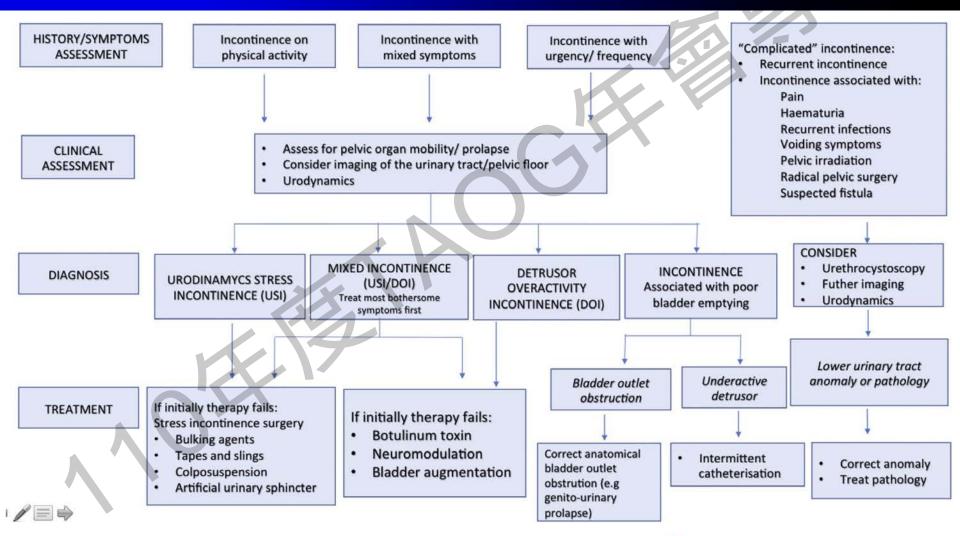


Fig. 2. Specialized management of urinary incontinence in women [5].

## **Specialized management**

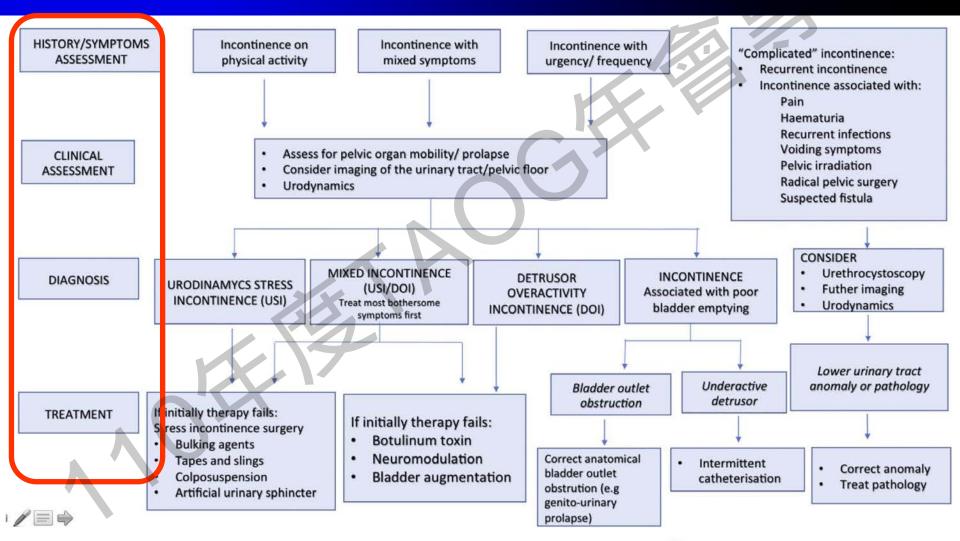


Fig. 2. Specialized management of urinary incontinence in women [5].

1.

## HISTORY/SYMPTOMS ASSESSMENT

Incontinence on physical activity Incontinence with mixed symptoms

Incontinence with urgency/ frequency 2.

## CLINICAL ASSESSMENT

- Assess for pelvic organ mobility/ prolapse
- Consider imaging of the urinary tract/pelvic floor
- Urodynamics

## DIAGNOSIS

4.

### TREATMENT

URODINAMYCS STRESS INCONTINENCE (USI)

#### MIXED INCONTINENCE (USI/DOI)

Treat most bothersome symptoms first

DETRUSOR OVERACTIVITY INCONTINENCE (DOI)



- Bulking agents
- Tapes and slings
- Colposuspension
- · Artificial urinary sphincter

#### If initially therapy fails:

- Botulinum toxin
- Neuromodulation
- Bladder augmentation

## DIAGNOSIS

4.

## TREATMENT

INCONTINENCE Associated with poor bladder emptying

Bladder outlet obstruction

Correct anatomical bladder outlet obstrution (e.g genito-urinary prolapse)

Underactive detrusor

 Intermittent catheterisation

## Specialized management (EAU 2019)

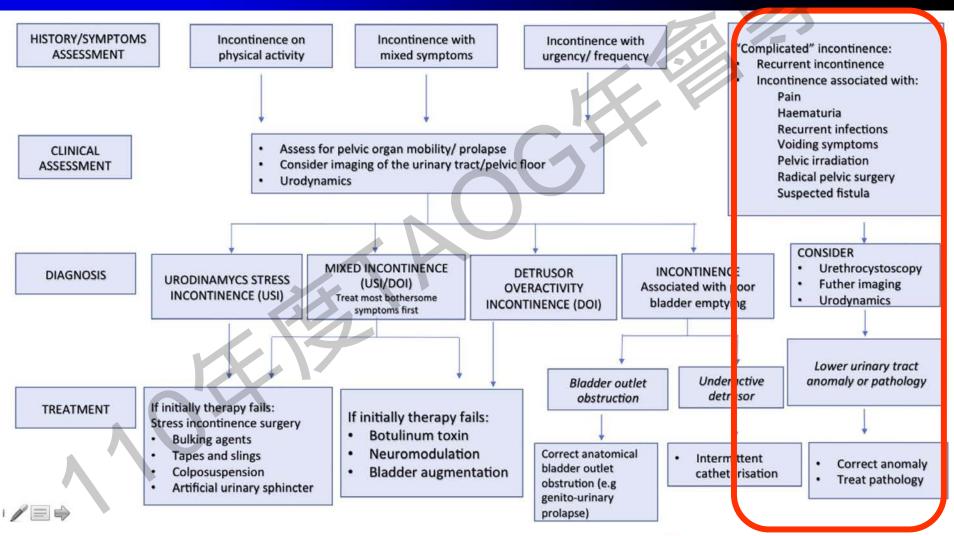


Fig. 2. Specialized management of urinary incontinence in women [5].

#### "Complicated" incontinence:

- Recurrent incontinence
- Incontinence associated with:

Pain

Haematuria

Recurrent infections

Voiding symptoms

Pelvic irradiation

Radical pelvic surgery

Suspected fistula

#### CONSIDER

- Urethrocystoscopy
- Futher imaging
- Urodynamics

Lower urinary tract anomaly or pathology

- Correct anomaly
- Treat pathology

## Care pathway of SUI (EAU 2019)

#### Care pathway of female Stress Urinary Incontinence (SUI)

Women with stress urinary incontinence (SUI)

- Characterisation severity of the condition
- · Careful medical history
- Exclude UTI, diabetes
- · Quality of life assessment and bladder diaries
- Urodynamics

#### Mild to Moderate SUI

Lifestyle modifications, pelvic floor rehabilitation and local therapy for at least 3 months in mild SUI

Moderate to severe SUI

In moderate to severe SUI: first step local therapy and pelvic floor rehabilitation for at least 3 months.

When failure, depending on patient condition:

Laser therapy in mild-moderate SUI

Surgical therapy with midurethral sling

Bulking agents in patients whit comorbidities that preclude surgery

#### **Guidelines**



## Guideline of guidelines: urinary incontinence in women

Rachael D. Sussman\*, Raveen Syan† and Benjamin M. Brucker\*

\*Department of Urology, MedStar Georgetown University Hospital, Washington, DC, Department of Urology, Stanford School of Medicine, Stanford, CA, and Department of Urology, New York University Medical Center, New York, NY, USA

BJU Int 2020; **125:** 638–655

Guideline	Year of publication/most recent update
European Association of Urology (EAU)	2019
International Consultation on Incontinence (ICI)	2017
American College of Obstetrics and Gynecology/American Urogynecologic Society (ACOG)	2015
National Institute for Health and Care Excellence (NICE)	2019
American Urologic Association (AUA)/Society of Urodynamics, Female Pelvic Medicine and Urogenital Reconstruct	tion (SUFU)
Surgical treatment of Stress Urinary Incontinence in Women (AUA/SUFU SUI)	2017
Urodynamic Studies in Adults (AUA/SUFU UDS)	2012
Diagnosis and Treatment of Overactive Bladder (Non-Neurogenic) in Adults: (AUA/SUFU OAB)	2019

#### **Guidelines**



## Guideline of guidelines: urinary incontinence in women

Rachael D. Sussman\*, Raveen Syan† and Benjamin M. Brucker\*

\*Department of Urology, MedStar Georgetown University Hospital, Washington, DC, Department of Urology, Stanford School of Medicine, Stanford, CA, and Department of Urology, New York University Medical Center, New York, NY, USA

BJU Int 2020; **125:** 638–655

Guideline	Year of publication/most recent update
European Association of Urology (EAU)	2019
International Consultation on Incontinence (ICI)	2017
American College of Obstetrics and Gynecology/American Urogynecologic Society (ACOG)	2015
National Institute for Health and Care Excellence (NICE)	2019
American Urologic Association (AUA)/Society of Urodynamics, Female Pelvic Medicine and Urogenital Reconstruction	(SUFU)
Surgical treatment of Stress Urinary Incontinence in Women (AUA/SUFU SUI)	2017
Urodynamic Studies in Adults (AUA/SUFU UDS)	2012
Diagnosis and Treatment of Overactive Bladder (Non-Neurogenic) in Adults: (AUA/SUFU OAB)	2019



Journal

# THE JOURNAL

2020 Impact Factor

## TOP 10 Impact Factors in Urology 2021

20.096
14.432
7.749
7.450
5.996
5.588
5.554
5.400
4.836
4.226
4.104

## **AUA / SUFU 2017**

#### Female Stress Urinary Incontinence: AUA/SUFU Evaluation and Treatment Algorithm

#### **EVALUATION (INDICATIONS)**

#### Initial evaluation

The initial evaluation of patients desiring to undergo surgical intervention should include the following components:

- History
- Physical exam
- Demonstration of SUI.
- PVR assessment
- Urinalysis

#### Cystoscopy

Should not be performed unless there is a concern for lower urinary tract abnormalities

#### **Urodynamics**

May be omitted when SUI is clearly demonstrated

#### Additional evaluation

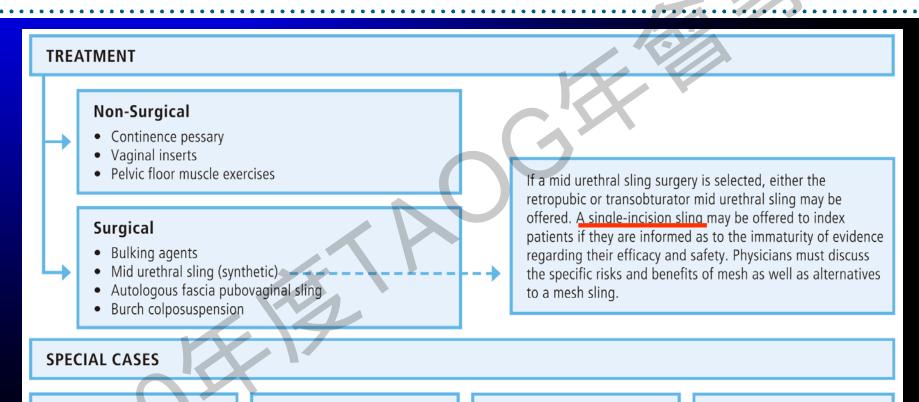
Additional evaluation **should** be performed in the following scenarios:

- Lack of definitive diagnosis
- Inability to demonstrate SUI
- Known/suspected NLUTD
- Abnormal urinalysis
- Urgency-predominant MUI
- Elevated PVR
- High-grade POP (if SUI not demonstrated with POP reduction)
- Evidence of significant voiding dysfunction

Additional evaluation **may** be performed in the following scenarios:

- Concomitant OAB symptoms
- Failure of prior anti-incontinence surgery
- Prior POP surgery

In patients who wish to undergo treatment, physicians should counsel regarding the availability of observation, pelvic floor muscle training, other non-surgical options, and surgical interventions. Physicians should counsel patients on potential complications specific to the treatment options.



- 1. Fixed immobile urethra
  - Pubovaginal sling
  - Retropubic midurethral sling
  - Urethral bulking agents
- 2. Concomitant surgery for POP repair and SUI

Any incontinence procedure

3. Concomitant NLUTD

Surgical treatment following appropriate evaluation and counseling

4. Child-bearing, diabetes, obesity, geriatric

Surgical treatment following appropriate evaluation and counseling

#### **Guidelines**



## Guideline of guidelines: urinary incontinence in women

Rachael D. Sussman\*, Raveen Syan† and Benjamin M. Brucker\*

\*Department of Urology, MedStar Georgetown University Hospital, Washington, DC, Department of Urology, Stanford School of Medicine, Stanford, CA, and Department of Urology, New York University Medical Center, New York, NY, USA

BJU Int 2020; 125: 638-655

Guideline	Year of publication/most recent update
European Association of Urology (EAU)	2019
International Consultation on Incontinence (ICI)	2017
American College of Obstetrics and Gynecology/American Urogynecologic Society (ACOG)	2015
National Institute for Health and Care Excellence (NICE)	2019
American Urologic Association (AUA)/Society of Urodynamics, Female Pelvic Medicine and Urogenital Reconstruction (SUFU	J)
Surgical treatment of Stress Urinary Incontinence in Women (AUA/SUFU SUI)	2017
Urodynamic Studies in Adults (AUA/SUFU UDS)	2012
Diagnosis and Treatment of Overactive Bladder (Non-Neurogenic) in Adults: (AUA/SUFU OAB)	2019

## Initial evaluation

Table 2 Initial evaluation.

Recommendation	ACOG	AUA/SUFU SUI	AUA/SUFU OAB	EAU	ICI	NICE
Detailed history with emphasis on characterisation of UI		•	. 155		•	
Detailed partum history	•					
Exclude other disease processes (e.g., malignancy, ectopic ureter, etc.)	•			•		
Bowel history	•	•	•		•	
Physical examination including pelvic examination and	•	•		•	•	•
assessment of pelvic floor musculature						
Neurological examination	•				•	
Stress test for objective demonstration of SUI	•	•				
Bladder/voiding diary				•	•	•
ICIQ for initial assessment					•	
Questionnaires when standardised assessment is needed				•		

Detailed history with emphasis on characterisation of UI

Detailed partum history

Exclude other disease processes (e.g., malignancy, ectopic ureter, etc.)

Bowel history

Physical examination including pelvic examination and assessment of pelvic floor musculature

Neurological examination

Stress test for objective demonstration of SUI

Bladder/voiding diary

ICIQ for initial assessment

Questionnaires when standardised assessment is needed









## History and Physical Examination

All guidelines require a detailed history

 The physical examination: general status (mental status, obesity, mobility), an abdominal examination, and a pelvic examination with an assessment of pelvic floor muscles and evaluation for POP

## History and Physical Examination

Referral to a specialist:

 such as associated pain, haematuria, a history of recurrent UTI, pelvic surgery or radiotherapy, constant leakage suggesting a fistula, faecal incontinence (NICE only), voiding difficulty, or suspected neurological disease

## Questions and Questionnaires

- The ICI and NICE recommend the use of a 3-day voiding diary
- The ICI gives a Grade A recommendation to the use of the ICI Questionnaire (ICIQ)
- The EAU gives a 'Strong' recommendation for the use of a validated and appropriate questionnaire.

## **Diagnosis**

Table 3 Diagnostic tests.

Recommendation	ACOG	AUA/SUFU SUI	AUA/SUFU OAB	EAU	ICI	NIC
Urine analysis	•	•	·/ //	•	•	•
PVR in all patients	•	•				
PVR in specific situations				•	•	•
Pad testing for quantifying UI	•	•		•		
Pad testing for monitoring change after treatment						•
Routine imaging not recommended	•		•	•	•	•
Cystourethroscopy not recommended in routine UI	•		•	•	•	•

Urine analysis
PVR in all patients
PVR in specific situations
Pad testing for quantifying UI
Pad testing for monitoring change after treatment
Routine imaging not recommended
Cystourethroscopy not recommended in routine UI











## Diagnosis

- All guidelines on UI agree upon a urine analysis (UA) as an initial diagnostic test.
- Most guidelines agree that post-void residual urine volume (PVR) should be checked.
- Pad testing: The EAU (Weak) and the AUA (Recommendation) support pad testing when quantification of UI is required.
- The ICI states that pad testing: routine evaluation of UI, and suggests a 24-h test.

## **Diagnosis**

- Routine imaging is not recommended unless there is concern for other underlying pelvic disorders.
- The cotton swab or 'Q-tip' test has been the traditional method to assess urethral mobility
- NICE guidelines specifically recommend against the use of the Q-tip test

## **UDS**

ACOG	Preoperative UDS is not necessary prior to surgery in patient with uncomplicated SUI (Level A)
AUA/SUFU	
AUA/SUFU SUI	May omit UDS for the index patient desiring treatment when SUI is clearly demonstrated (Conditional Recommendation;
	Evidence Level: Grade B)
	May perform UDS in non-index patients with SUI (Expert Opinion)
AUA/SUFU UDS	Perform UDS when it is important to determine if altered compliance, DO or other urodynamic abnormalities are present (or not) when
	considering invasive treatment (Option; Evidence Strength: Grade C)
	May perform UDS in patients with evidence of SUI on physical
	examination if considering invasive treatment (Option; Evidence Strength: Grade C)
AUA/SUFU OAB	UDS should not be used in the evaluation of an uncomplicated patient (Clinical Principle)
EAU	Do not use for uncomplicated UDS (Strong)
	Use UDS if the findings may change the choice of invasive treatment (Weak)
ICI	Use UDS if results will alter treatment
NICE	Do not perform UDS in patient with uncomplicated SUI demonstrated on examination.
	Perform UDS prior to SUI surgery for women with
	urge predominant or MUI, voiding dysfunction, anterior or apical POP, or previous surgery for SUI

## UDS

- All guidelines agree that UDS are not necessary prior to treatment of uncomplicated SUI
- (RCT) that showed no difference in surgical outcomes
- For non-surgical patients, EAU: UDS may influence choice of treatment, they did do alter the clinical outcome of conservative or drug therapy

## **UDS**

- The ACOG and NICE guidelines do not recommend UDS for patients with uncomplicated SUI
- The AUA/SUFU UDS guideline made a statements about UDS on four disease states: SUI/POP;OAB, UUI and MUI; neurogenic bladder; and LUTS

## **Conservative management**

Table 5 Conservative management.

Recommendation	ACOG	AUA/SUFU SUI	AUA/SUFU OAB	EAU	ICI	NICE
Scheduled voiding	•				•	
Fluid management	•					•
Smoking cessation				•		
Avoidance of caffeine	•			•	•	•
Weight loss	•	4/6/4	•	•	•	•
Treatment of constipation	•			•		
PFMT for UUI	•		•		•	
PFMT for SUI and MUI	•		•	•	•	•
Offer incontinence pads and/or contaminant devices for the management of UI				•		
Counsel women with SUI on the availability of non-surgical	•					
options, e.g., continence pessary						
PTNS for UUI			•	•	•	

Scheduled voiding

Fluid management

Smoking cessation

Avoidance of caffeine

Weight loss

Treatment of constipation

PFMT for UUI

PFMT for SUI and MUI

Offer incontinence pads and/or contaminant devices for the management of UI

Counsel women with SUI on the availability of non-surgical











## Consevative management

- All guidelines recommend a trial of conservative treatment before invasive therapy
- Conservative therapies include behavioural therapy, physical therapy, and scheduled voiding
- NICE and ICI guidelines recommend a trial of caffeine reduction for women with OAB
- EAU, ICI, NICE, and AUGS guidelines: weight loss in obese patients is beneficial in improving UI

## Consevative management

- Pelvic floor muscle therapy (PFMT) is recommended for SUI and UUI
- The AUA: women with SUI or stress-predominant MUI should be counselled about the availability of other non-surgical options or vaginal devices (e.g., continence pessary)
- Posterior tibial nerve simulation (PTNS): UUI and OAB. The EAU, AUA/SUFU OAB guidelines both recommend its use in patients who have failed antimuscarinics

## **Consevative management**

- Duloxetine inhibits the presynaptic re-uptake of neurotransmitters serotonin and norepinephrine in the sacral spinal cord, increase stimulation of the pudendal nerve and therefore tone of the urethral striated sphincter.
- EAU: recommendation to use duloxetine only in select patients with symptoms of SUI when surgery is not indicated
- ICI, EAU and NICE give recommendations to use topical hormonal therapy in women with UI and findings of vulvovaginal atrophy

Table 7 Surgical treatment for SUI. **AUA/SUFU SUI** Recommendation **ACOG** EAU ICI Inform women that any vaginal surgery has an impact on sexual function, which is generally positive Open or laparoscopic colposuspension technique as option for women with SUI Inform women undergoing colposuspension of longer operation time, hospital stay, recovery, and risk of POP and voiding dysfunction postoperatively MUS as option for treatment of uncomplicated SUI TMUS and RMUS have equivalent cure rates Do not offer TMUS unless there are specific clinical circumstances that retropubic space should be avoided Do not use 'top-down' RMUS outside of a clinical trial Do not use single-incision slings outside of a clinical trial Single-incision slings may be offered, but patients should be warned about lack of long-term data Counsel women undergoing periurethral bulking about need for repeat injections Do not recommend periurethral bulking agents to women seeking a permanent cure for SUI May offer prophylactic anti-UI procedure at the time of POP repair after informed decision making Do not offer anti-UI procedure at the time of POP repair in continent women AUS as an option for women with complicated SUI with warning of high complication and mechanical Surgery failure rate Do not offer AUS to women with SUI unless prior surgery has failed Inform women that any vaginal surgery has an impact on sexual function, which is generally positive Open or laparoscopic colposuspension technique as option for women with SUI Inform women undergoing colposuspension of longer operation time, hospital stay, recovery, and risk of POP and voiding dysfunction postoperatively MUS as option for treatment of uncomplicated SUI TMUS and RMUS have equivalent cure rates Do not offer TMUS unless there are specific clinical circumstances that retropubic space should be avoid Do not use 'top-down' RMUS outside of a clinical trial Do not use single-incision slings outside of a clinical trial Single-incision slings may be offered, but patients should be warned about lack of long-term data Counsel women undergoing periurethral bulking about need for repeat injections Do not recommend periurethral bulking agents to women seeking a permanent cure for SUI May offer prophylactic anti-UI procedure at the time of POP repair after informed decision making Do not offer anti-UI procedure at the time of POP repair in continent women AUS as an option for women with complicated SUI with warning of high complication and mechanical failure rate Do not offer AUS to women with SUI unless prior surgery has failed

## Conclusions

- The initial evaluation should include a through history, physical examination and tools to quantify and qualify the degree of UI.
- For patients with uncomplicated SUI, invasive testing and imaging should be avoided,
- It is generally agreed upon that MUS is recommended for the patient with uncomplicated SUI



## Thanks!