



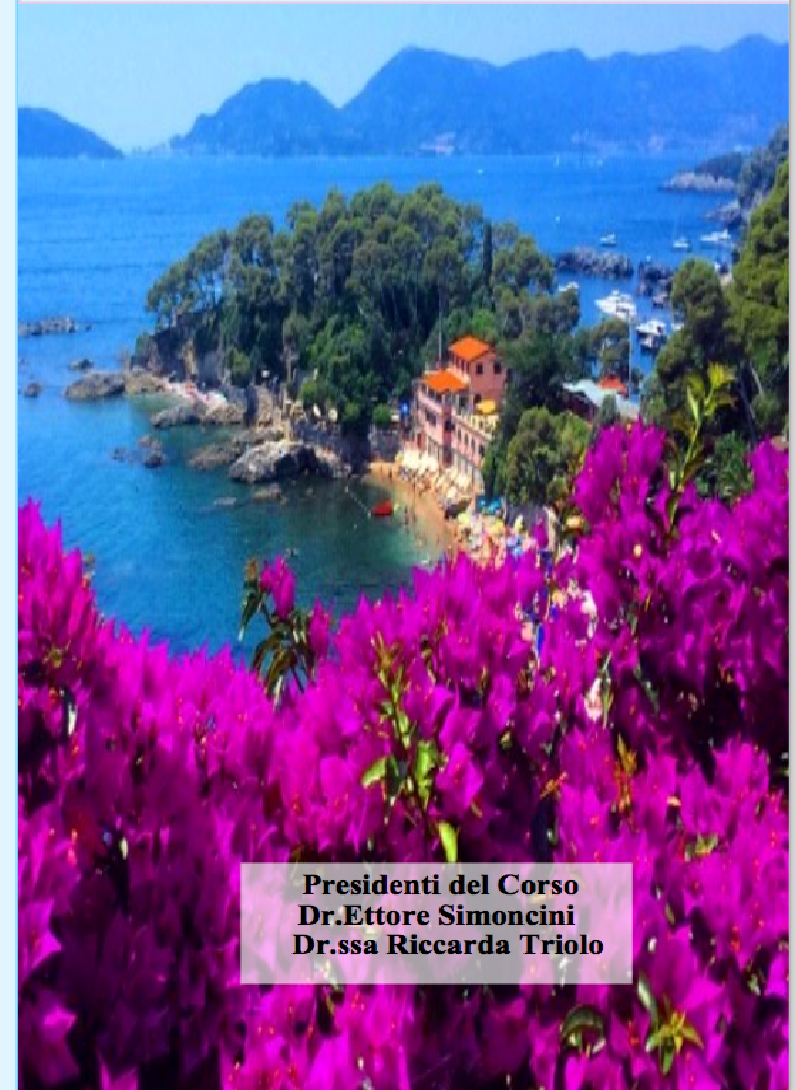
# Female Urinary Incontinence: **GENERAL ASSESSMENT**

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**CORSO INTENSIVO  
SU PATOLOGIA UROGENITALE E  
INCONTINENZA URINARIA  
NELLA DONNA**  
*Lerici - loc. Fiascherino (SP),*

*5 Maggio 2017*

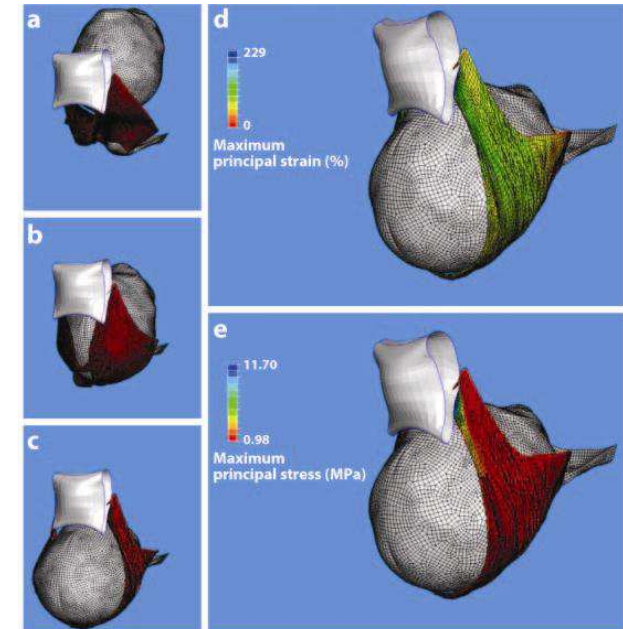


**Presidenti del Corso  
Dr. Ettore Simoncini  
Dr.ssa Riccarda Triolo**

According to the definition of the International Continence Society (ICS),  
**UI ‘is the complaint of any involuntary leakage of urine’**



# WHAT KIND OF PATIENT WITH



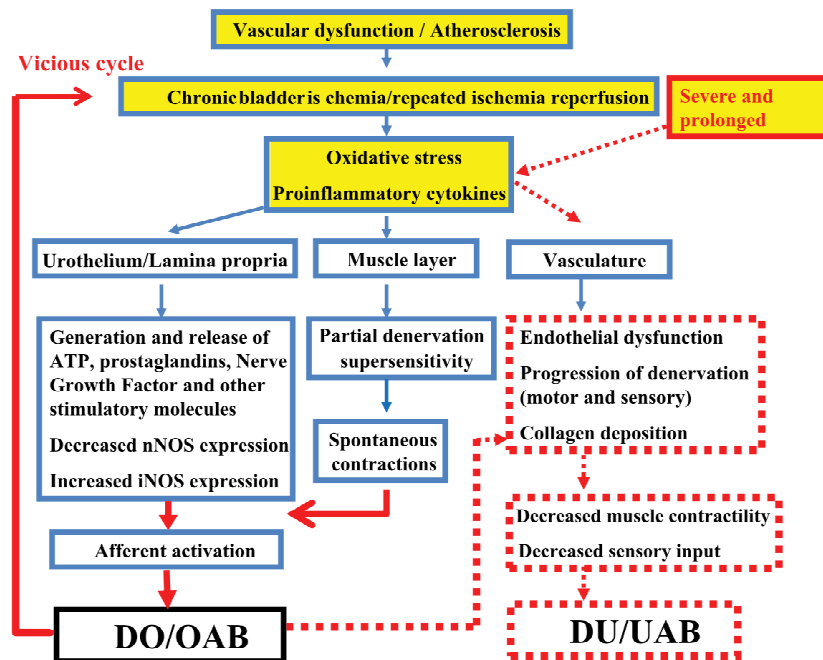
Ashton-Miller JA, DeLancey JOL. 2009.  
Annu. Rev. Biomed. Eng. 11:163–76

- Pudendal nerve ischemia
- Levator muscles avulsion
- Cardinal and utero-sacral ligaments stretching

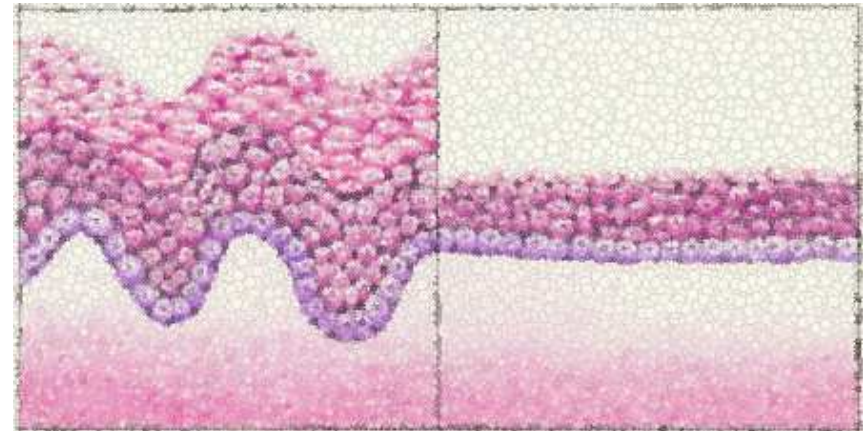
**Rotational descent of the proximal urethra  
from its retropubic position**

# WHAT KIND OF PATIENT WITH UI

- Chronic bladder ischemia and oxidative stress (Aging bladder)



- Estrogen loss, Vulvovaginal atrophy (VVA)



Robinson, D., P. Toozs-Hobson, and L. Cardozo, *The effect of hormones on the lower urinary tract*. Menopause Int, 2013

Andersson, K.E et al, *The link between vascular dysfunction, bladder ischemia, and aging bladder dysfunction*. Ther Adv Urol, 2017



# WHAT KIND OF PATIENT WITH

## UI DIAPPER

- Delirium
- Infection
- Atrophic vaginitis
- Pharmacologic
- Psychological
- Excessive urine production
- Restricted mobility
- Stool impaction



Resnick, NM Urinary incontinence in the elderly Medical Grand Rounds, 1984



Prevalence of urinary incontinence 40% (95% CI 27.6–51.1%) in women  $\geq 90$  years of age (EpinCONT study)

Wath is the strategy for initial  
evaluation?



# UI GUIDELINES

Guideline	Year of publication/ update
European Association of Urology (EAU)	2014
Canadian Urological Association (CUA)	2012
American Urologic Association (AUA)	2012
International Consultation on Incontinence (ICI)	2012
Diagnosis and Treatment of Overactive Bladder (Non-Neurogenic) in Adults: AUA/SUFU Guideline	2012
Urodynamic Studies in Adults: AUA/SUFU Guideline	2012
National Institute for Health and Care Excellence (NICE)	2013



# UI ASSESSMENT RECOMMENDATION

Recommendation	Guideline supporting recommendation (Grade included if specified)
Detailed history with emphasis on characterization of incontinence	EAU, AUA, CUA, NICE (Level 4), ICI (Level 5 – Grade D)
Detailed partum history	EAU
Exclude other disease processes (e.g. malignancy, ectopic ureter, etc.)	EAU
Physical examination	EAU, AUA, CUA, NICE, ICI
Pelvic examination	ICI, NICE (Level 4), CUA (Grade C)
Leakage of urine objectively observed in order to diagnose SUI	AUA (Standard)
Assess patient treatment expectations	CUA (Level 2 – Grade B)
Bladder/voiding diaries	NICE (Level 3)
3-day bladder diary	ICI (highly recommends)
3–7-day bladder diary	EAU (Level 2b – Grade A)
Voiding diary	AUA (Grade C), AUA/SUFU OAB
Questionnaires	EAU Grade B (for monitoring changes)
ICIQ for initial assessment	CUA and ICI (Grade A)



# General Assessment

- Type of incontinence
- “Simple” or “complicated”  
incontinence





# TYPES OF INCONTINENCE

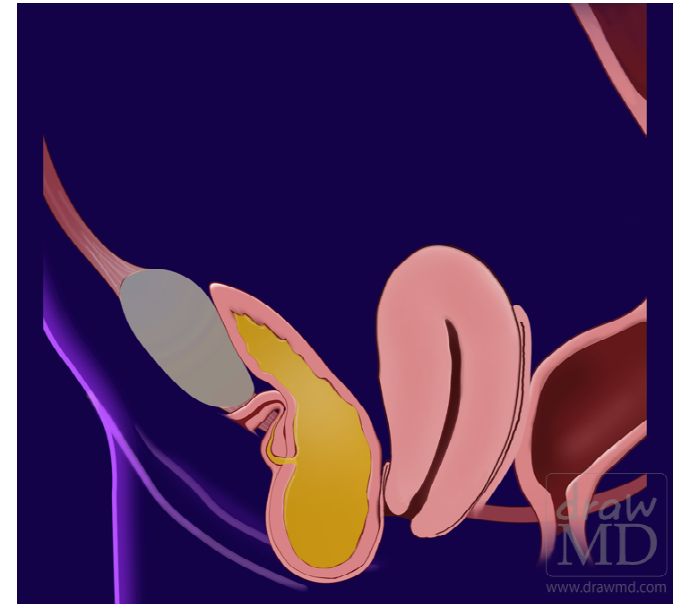
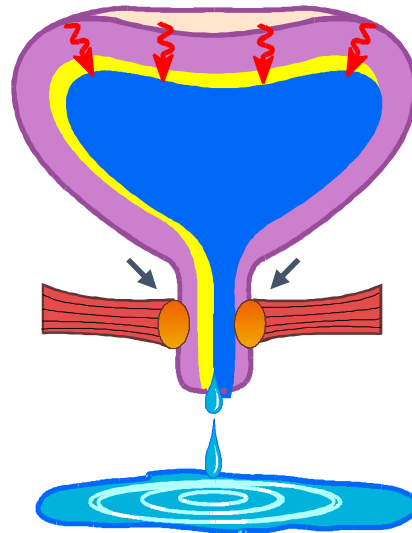
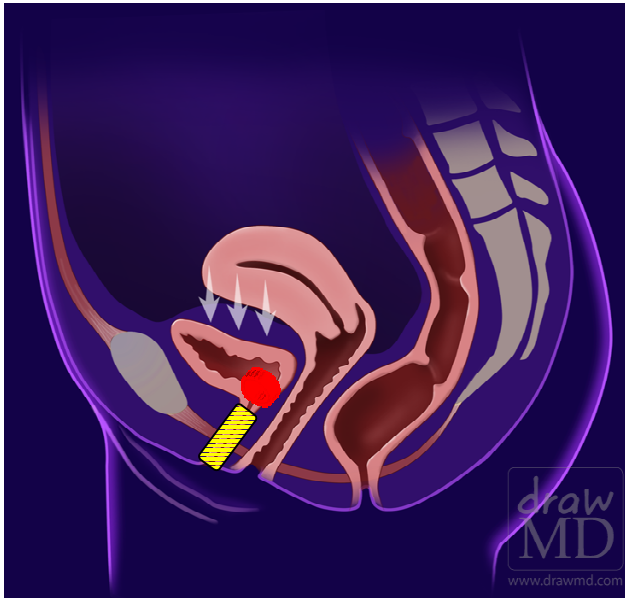
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STRESS URINARY INCONTINENCE (SUI)

URGENCY URINARY INCONTINENCE (UII)

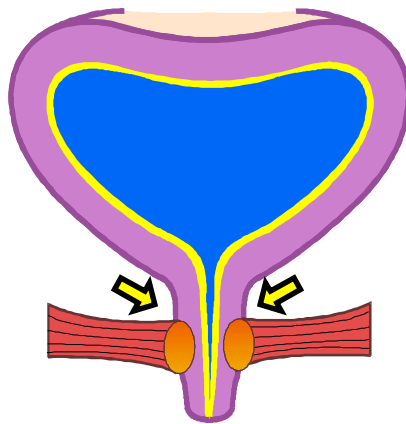
MIXED URINARY INCONTINENCE (MUI)

OVERFLOW URINARY INCONTINENCE (OUI)

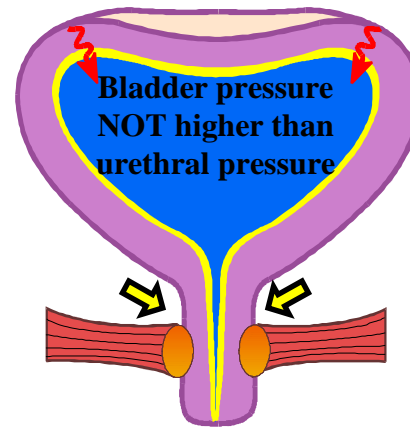


# OVERACTIVE BLADDER

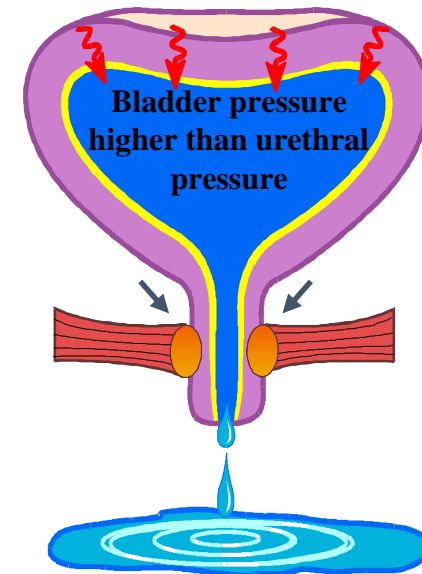
**Normal**



**Patients with  
urge and  
frequency**



**Patients with  
urge  
incontinence**



**Urethral pressure**



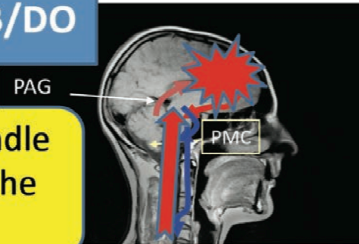
**Un-inhibited detrusor contractions**



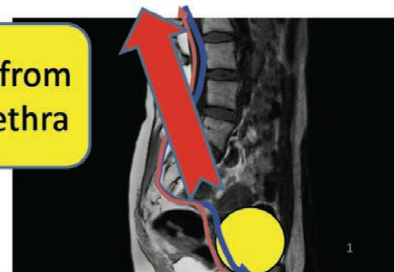
# OVERACTIVE BLADDER

## Pathophysiology of OAB/DO

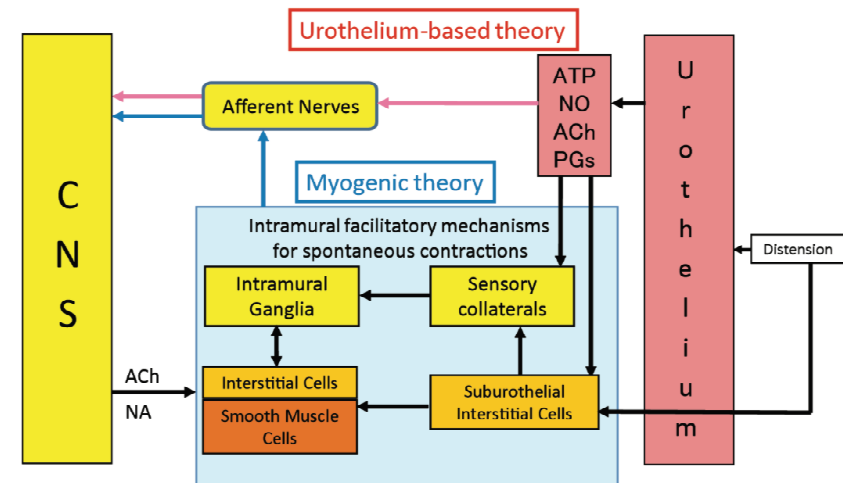
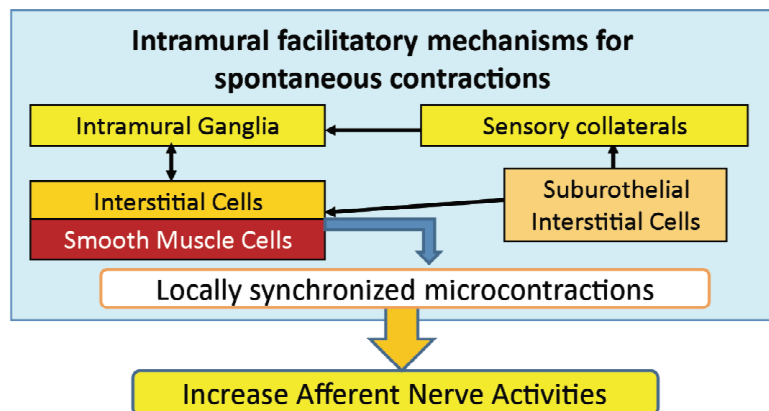
Decreased capacity to handle the afferent signals in the brain



Increased afferent signals from the bladder and /or urethra



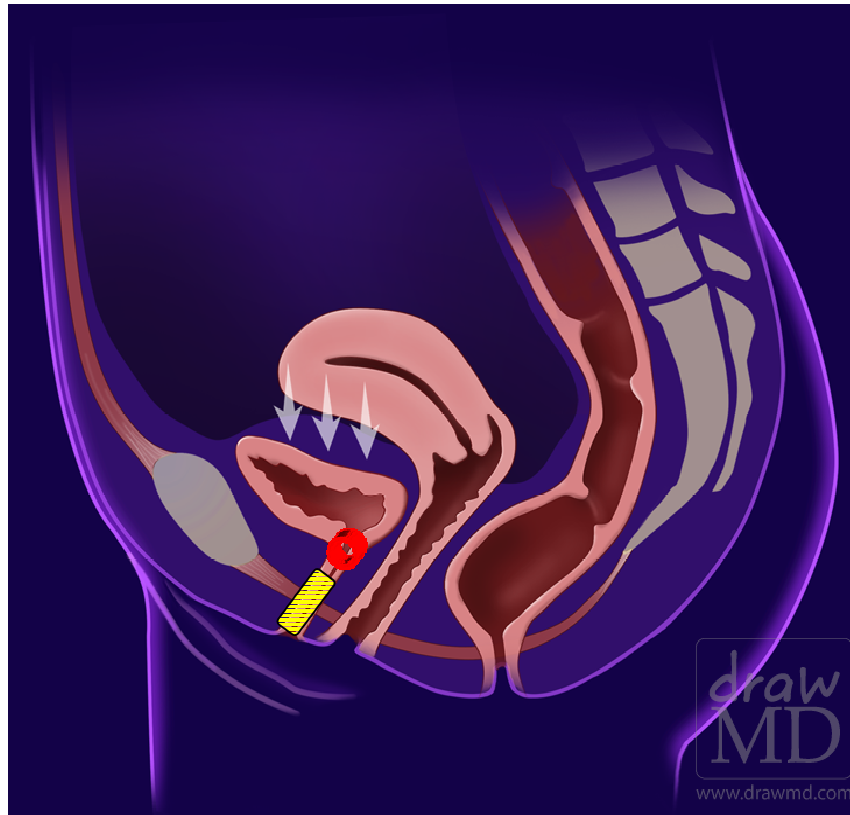
- **NEUROGENIC DETRUSOR OVERACTIVITY**
- *Suprapontine lesions*
- *Spinal cord lesions*



# STRESS URINARY INCONTINENCE (SUI)

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- ❖ complaint of involuntary loss of urine on effort or physical exertion (e.g., sporting activities), or on sneezing or coughing.



- ❖ A new classification of stress incontinence will integrate hypermobility and urethral dysfunction as interrelated elements on a spectrum of change.



# OVERACTIVE BLADDER

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## Urgency urinary incontinence (UUI)

- ❖ Complaint of involuntary loss of urine associated with urgency

## OVERACTIVE BLADDER SYNDROME (OABS)

- ❖ Urinary urgency, usually accompanied by frequency and nocturia, with or without urgency urinary incontinence, in the absence of urinary tract infection (UTI) or other obvious pathology





# GENERAL ASSESSMENT: KEY QUESTIONS 1/2

- Do you sometimes leak urine when you cough or sneeze or when you exert yourself, such as when lifting a heavy object?
- Do you sometimes feel an urge to void that is so sudden and strong that you sometimes don't make it to the bathroom on time?
- How long have the symptoms been present?
- How often do you leak urine and how much do you leak?
- Circumstances surrounding urine leakage e.g. sexual activity, change position, provocation by running water or "key in the latch"?



# GENERAL ASSESSMENT:KEY QUESTIONS 2/2

- Nocturnal symptoms or enuresis?
- Amount and types of fluid intake (coffee, tea, alcohol)?
- Episodes of urinary tract infection or haematuria?
- Types of medication consumed?
- Number of pregnancies and the type of delivery, with complications?
- Previous pelvic or abdominal surgeries or radiation?



# UI CLINICAL APPROACH

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- COUGHING, LIFTING WEIGHTS, LAUGHING, WALKING, RUNNING, SEXUAL INTERCOURSE -  
**LEAKING DROPLETS**

**UI RELATED TO PURE STRESS = URETHRAL HYPERMOTILITY**

- CHANGING POSITION, CONTINUOUS DRIBBLING - **SIGNIFICANT LOSS OF URINE**

**UI RELATED TO MINIMAL STRESS = SPHINCTER DEFICIENCY**

- COLD WATER, NOCTURIA, ANTICIPATION OF MICTURITION – **CAN'T REFRAIN FROM LOSING URINE**

**UI RELATED TO URGENCY = OVERACTIVE BLADDER**

- INCOMPLETE BLADDER EMTYING, WEAK URINARY FLOW, NEED TO SHIFT POSITION WHEN URINATING, NEED TO REPOSITION PROLAPSE TO EMPTY BLADDER – **LEAKAGE WHEN BLADDER FULL, VARIABLE AMOUNT**

**UI ASSOCIATED TO VOIDING DISFUNCTION = OBSTRUCTIVE CISTOCELE**



# Assessment Of Quality Of Life Impact



# Patient-Reported Outcome Assessment

## The International Consultation on Incontinence Modular Questionnaire [www.icig.net](http://www.icig.net)

**Paul Abrams,\* Kerry Avery, Nikki Gardener† and Jenny Donovan on behalf of the ICIQ Advisory Board**

*From the Bristol Urological Institute and University of Bristol, Bristol, United Kingdom*

### Fully validated modules, derivations and recommendation grade from third ICI

Module Name and Derivation	Assessment Area	ICI Recommendation Grade
ICIQ-MLUTS (ICS <sub>male</sub> Short Form <sup>8</sup> )	Urinary symptoms (male)	A
ICIQ-FLUTS (BFLUTS Short Form <sup>9</sup> )	Urinary symptoms (female)	A
ICIQ-UI Short Form <sup>1</sup>	Urinary incontinence short form	A
ICIQ-N (ICS <sub>male</sub> <sup>2</sup> /BFLUTS <sup>3</sup> )	Nocturia	A
ICIQ-OAB (ICS <sub>male</sub> <sup>2</sup> /BFLUTS <sup>3</sup> )	Overactive bladder	A
ICIQ-MLUTS Long Form (ICS <sub>male</sub> <sup>2</sup> )	Urinary symptoms long form (male)	A
ICIQ-FLUTS Long Form (BFLUTS <sup>3</sup> )	Urinary symptoms long form (female)	A
ICIQ-LUTSqol (KHQ <sup>4</sup> )	Urinary symptoms QOL	A
ICIQ-UIqol (I-QOL <sup>5</sup> )	Urinary incontinence QOL	A
ICIQ-OABqol (OABq <sup>6</sup> )	Overactive bladder QOL	A
ICIQ-Nqol (N-QOL <sup>7</sup> )	Nocturia QOL	Not incontinence
ICIQ-MLUTSsex (ICS <sub>male</sub> <sup>2</sup> )	Sexual matters related to urinary symptoms (male)	A
ICIQ-FLUTSsex (BFLUTS <sup>3</sup> )	Sexual matters related to urinary symptoms (female)	





- Patient counselling (discrepancy between diary recordings and the patient rating of symptoms)
  - Treatment response monitoring

# Screening test and physical examination



# TEST: POST VOIDING RESIDUAL (PVR)

- ❖ Both bladder outlet obstruction and low bladder contractility contribute to the development of PVR
- ❖ Non-invasive ultrasound measurement is the preferred method (ICI-EUA Grade A)
- ❖ < 50 ml adequate bladder emptying
- ❖ > 200 ml inadequate emptying



## Significant PVR consequences:

- Functional bladder capacity decrease
- Urgency/frequency, urgency incontinence nocturia and UTI increase



# TEST: URINALYSIS

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- ❖ Urinary incontinence and urgency may occur during symptomatic UTI and existing UI may worsen during UTI
- ❖ Do urinalysis as a part of the initial assessment of a patient with urinary incontinence (EAU grade A, ICI grade A)
- ❖ If a symptomatic urinary tract infection is present with urinary incontinence, reassess the patient after treatment (EAU grade A, ICI grade A)



# TEST: Urine Cytology

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- ❖ to look for abnormal cells in urine
- ❖ In patients with urgency, frequency, urge incontinence and nocturia



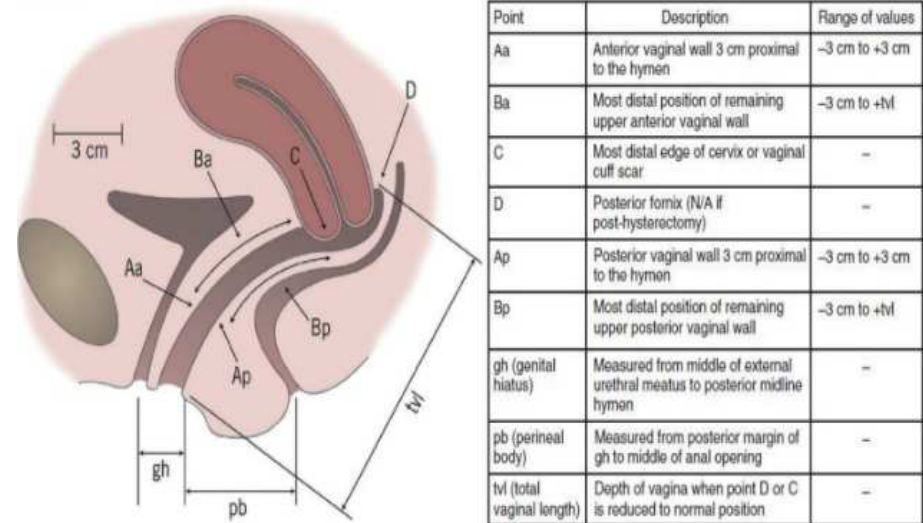


# CLINICAL EXAM

## KEY ITEMS



### VULVO-VAGINAL ATROPHY

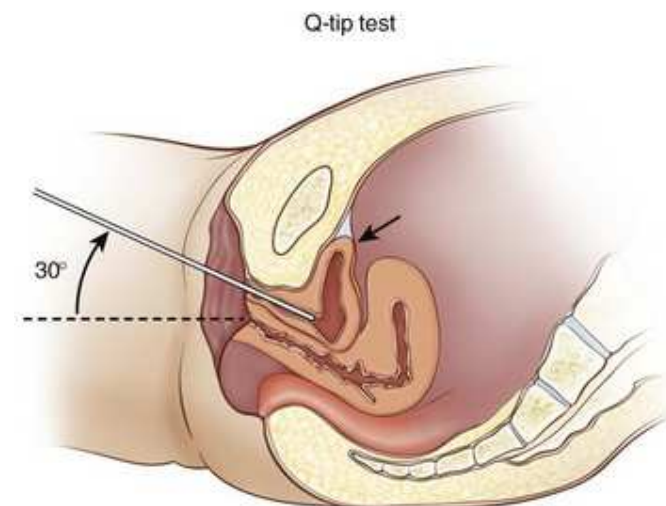


### PELVIC ORGAN PROLAPSE QUANTIFICATION POP-Q

### STRESS-TEST

### BONNEY-TEST

### PUBO-COCCIGEAL TEST



# “Complicated” incontinence

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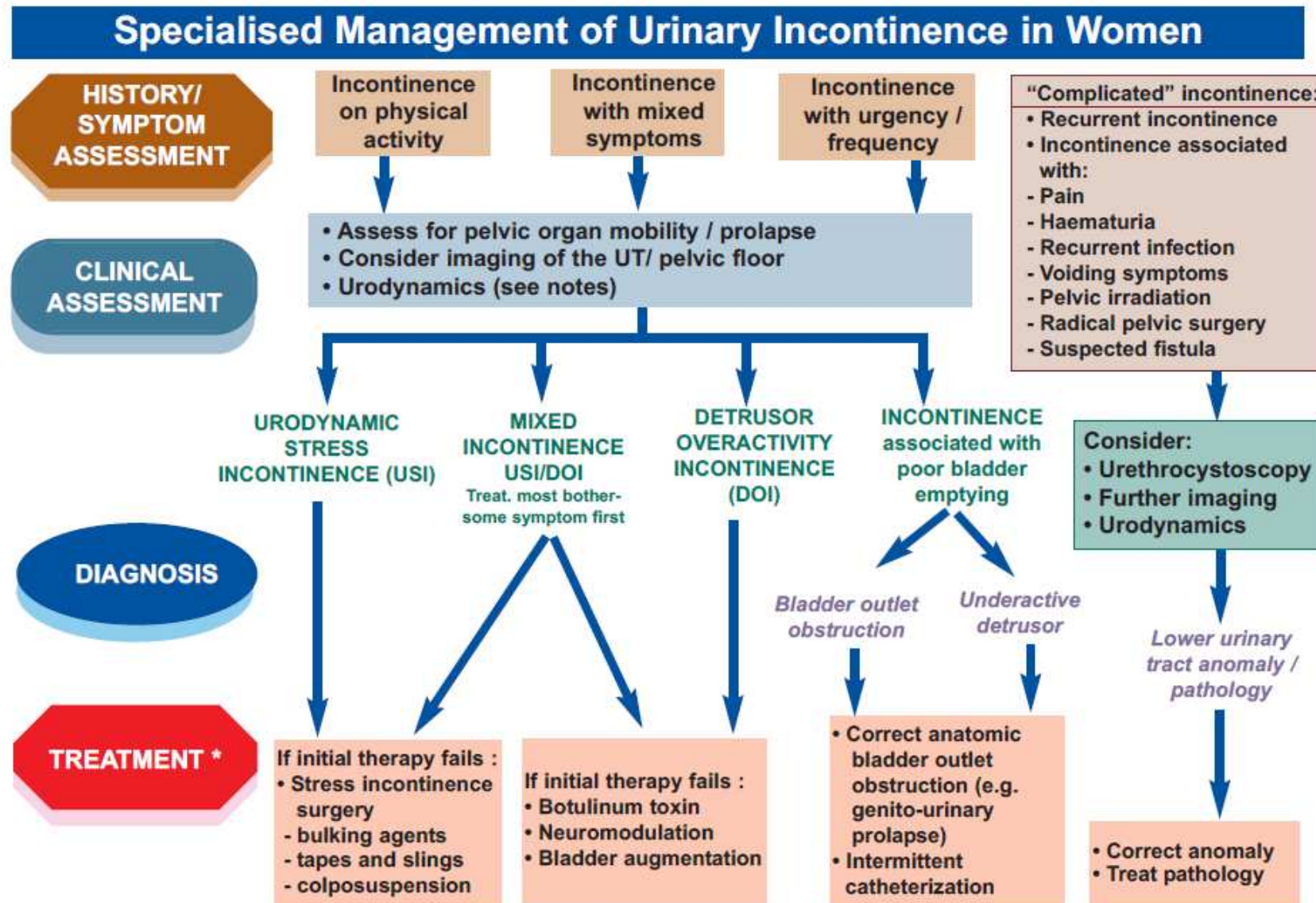
- Recurrent or persistent incontinence after treatment
- Incontinence associated with:
  - Hematuria
  - Recurrent infections
  - Voiding problems
  - Pelvic organ prolapse  $\geq$  III degree
  - Suspected fistula
  - Pelvic mass



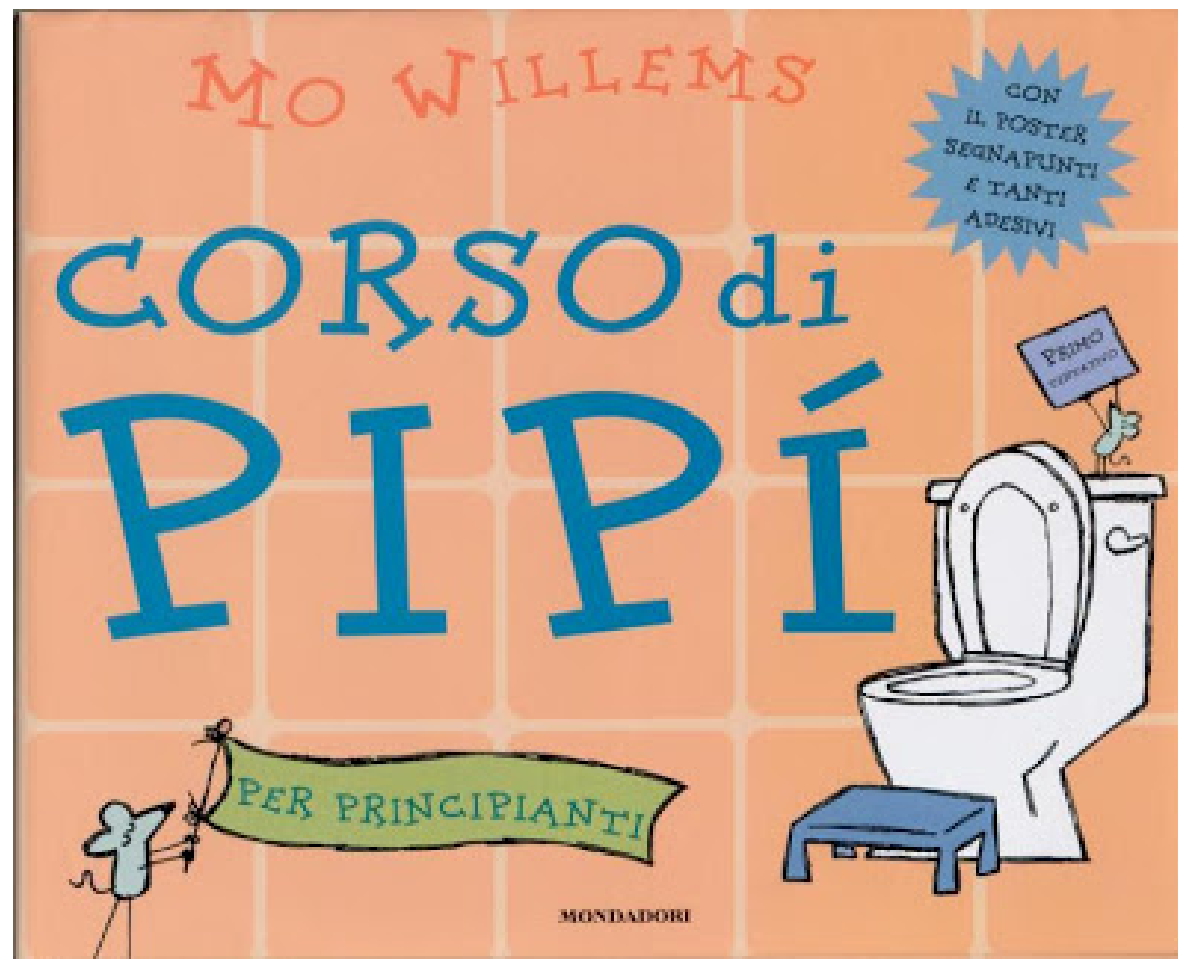
**SPECIALISED MANAGEMENT**



# ICI GUIDELINES



\* At any stage of the patient's care pathway, management may need to include continence products



**THANKS FOR ATTENDING!!**