

An aerial photograph of Victoria, British Columbia, Canada. The image shows a dense urban area with various buildings, including high-rise apartments and residential houses. A large green golf course is visible in the middle ground, situated on a hillside. The city is bordered by a body of water, likely the Inner Harbour, with a rocky shoreline in the foreground. In the background, there are rolling hills and mountains under a clear sky.

# **BLADDER SYMPTOMS AND GSM: ASSESSMENT AND MANAGEMENT**

**David Quinlan  
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# Disclosure of Financial Support

- **NO EXTERNAL SUPPORT**

# Faculty/Presenter Disclosure

- Faculty: DAVID QUINLAN
- NOT APPLICABLE

# **Bladder symptoms and GSM: assessment and management.**

**Upon completion of this learning activity, attendees will be able to:**

- 1. Recognize lower urinary tract symptoms associated with GSM.**
- 2. Recognize the important aspects of the clinical evaluation.**
- 3. Decide which investigations are required.**
- 4. Understand the treatment options and initiate management.**
- 5. Recognize which patients require referral for further evaluation and management.**



## **GENERAL COMMENTS**

- **Urinary tract has the same embryologic origin as the genital tract.**
- **Bladder, urethra, pelvic floor muscles, endopelvic fascia are affected by low levels sex steroid levels.**
- **Estrogen deficiency versus ageing is not always clear.**
- **No more effective treatment than topical conjugated E (Canada 1941).**
- **Awareness and treatment is available to a miniscule proportion of people.**

**The foundations of good pelvic floor health start early – not at menopause.**



# URINARY SYMPTOMS (GSM)

- Painful urination
- Urinary urgency and frequency (day or night)
- Recurrent urinary tract infections
  
- Urinary incontinence (stress/urge/mixed)
- Hesitancy
- Incomplete voiding

# ASSOCIATED CONDITIONS

- **OAB**
- **Interstitial cystitis/bladder pain syndrome**
- **Pelvic organ prolapse**



# Conditions which may present with urinary symptoms

- Ovarian cancer
- Bladder cancer
- Neurodegenerative conditions
- Metabolic disorders (DM)
- Sleep apnea
- Nocturnal polyuria
- Medication
- Radiation cystitis

# AUSTRALIAN PELVIC FLOOR QUESTIONNAIRE

Patient's Name: \_\_\_\_\_

Date of Birth: \_\_\_\_\_

Date completed: \_\_\_\_\_

Please circle your most applicable answer. Consider your experience during the last month.

## BLADDER FUNCTION

( \_\_\_\_ / 45)

**Q1. How many times do you pass urine in a day?**

- 0 Up to 7
- 1 Between 8-10
- 2 Between 11-15
- 3 More than 15

**Q2. How many times do you get up at night to pass urine?**

- 0 0-1
- 1 2
- 2 3
- 3 More than 3 times

**Q3. Do you wet the bed before you wake up at night?**

- 0 Never
- 1 Occasionally - less than once per week
- 2 Frequently - once or more per week
- 3 Always - every night

**Q4. Do you need to rush/hurry to pass urine when you get the urge?**

- 0 Can hold on
- 1 Occasionally have to rush – less than once/week
- 2 Frequently have to rush – once or more/week
- 3 Daily

**Q5. Does urine leak when you rush or hurry to the toilet or can't you make it in time?**

- 0 Not at all
- 1 Occasionally – less than once per week
- 2 Frequently – once or more per week
- 3 Daily

**Q6. Do you leak with coughing, sneezing, laughing or exercising?**

- 0 Not at all
- 1 Occasionally – less than once per week
- 2 Frequently – once or more per week
- 3 Daily

**Q7. Is your urinary stream (urine flow) weak, prolonged or slow?**

- 0 Never
- 1 Occasionally – less than once per week
- 2 Frequently – once or more per week
- 3 Daily

**Q8. Do you have a feeling of incomplete bladder emptying?**

- 0 Never
- 1 Occasionally – less than once per week
- 2 Frequently – once or more per week
- 3 Daily

**Q9. Do you need to strain to empty your bladder?**

- 0 Never
- 1 Occasionally – less than once per week
- 2 Frequently – once or more per week
- 3 Daily

**Q10. Do you have to wear pads because of urinary leakage?**

- 0 None - Never
- 1 As a precaution
- 2 When exercising / during a cold
- 3 Daily

**Q11. Do you limit your fluid intake to decrease urinary leakage?**

- 0 Never
- 1 Before going out
- 2 Moderately
- 3 Always

**Q12. Do you have frequent bladder infections?**

- 0 No
- 1 1-3 per year
- 2 4-12 per year
- 3 More than one per month

**Q13. Do you have pain in your bladder or urethra when you empty your bladder?**

- 0 Never
- 1 Occasionally – less than once per week
- 2 Frequently – once or more per week
- 3 Daily

**Q14. Does urine leakage affect your routine activities like recreation, socializing, sleeping, shopping etc?**

- 0 Not at all
- 1 Slightly
- 2 Moderately
- 3 Greatly

**Q15. How much does your bladder problem bother you?**

- 0 Not at all
- 1 Slightly
- 2 Moderately
- 3 Greatly

**Other symptoms** (haematuria, pain etc.)

\_\_\_\_\_

\_\_\_\_\_

## BOWEL FUNCTION

( \_\_\_\_ / 34)

**Q16. How often do you usually open your bowels?**

- 0 Ever other day or daily
- 1 Less than every 3 days
- 2 Less than once a week
- 0 More than once per day

**Q17. How is the consistency of your usual stool?**

- 0 Soft
- 0 Firm
- 0 Hard (pebbles)
- 1 Variable
- 2 Watery

**Q18. Do you have to strain to empty your bowels?**

- 0 Never
- 1 Occasionally – less than once per week
- 2 Frequently – once or more per week
- 3 Daily

**Q19. Do you use laxatives to empty your bowels?**

- 0 Never
- 1 Occasionally – less than once per week
- 2 Frequently – once or more per week
- 3 Daily

**Q20. Do you feel constipated?**

- 0 Never
- 1 Occasionally – less than once per week
- 2 Frequently – once or more per week
- 3 Daily

**Q21. When you get wind or flatus, can you control it, or does wind leak?**

- 0 Never
- 1 Occasionally – less than once per week
- 2 Frequently – once or more per week
- 3 Daily

AUSTRALIAN PELVIC FLOOR QUESTIONNAIRE

# AUSTRALIAN PELVIC FLOOR QUESTIONNAIRE

Patient's Name: \_\_\_\_\_

Date of Birth: \_\_\_\_\_

Date completed: \_\_\_\_\_

**Q22. Do you get an overwhelming sense of urgency to empty bowels?**

- 0 Never
- 1 Occasionally – less than once per week
- 2 Frequently – once or more per week
- 3 Daily

**Q23. Do you leak watery stool when you don't mean to?**

- 0 Never
- 1 Occasionally – less than once per week
- 2 Frequently – once or more per week
- 3 Daily

**Q24. Do you leak normal stool when you don't mean to?**

- 0 Never
- 1 Occasionally – less than once per week
- 2 Frequently – once or more per week
- 3 Daily

**Q25. Do you have a feeling of incomplete bowel emptying?**

- 0 Never
- 1 Occasionally – less than once per week
- 2 Frequently – once or more per week
- 3 Daily

**Q26. Do you use finger pressure to help empty your bowel?**

- 0 Never
- 1 Occasionally – less than once per week
- 2 Frequently – once or more per week
- 3 Daily

**Q27. How much does your bowel problem bother you?**

- 0 Not at all
- 1 Slightly
- 2 Moderately
- 3 Greatly

**PROLAPSE SYMPTOMS**

( \_\_\_\_ /15)

**Q28. Do you have a sensation of tissue protrusion/lump/bulging in your vagina?**

- 0 Never
- 1 Occasionally – less than once per week
- 2 Frequently – once or more per week
- 3 Daily

**Q29. Do you experience vaginal pressure or heaviness or a dragging sensation?**

- 0 Never
- 1 Occasionally – less than once per week
- 2 Frequently – once or more per week
- 3 Daily

**Q30. Do you have to push back your prolapse in order to void?**

- 0 Never
- 1 Occasionally – less than once per week
- 2 Frequently – once or more per week
- 3 Daily

**Q31. Do you have to push back your prolapse to empty your bowels?**

- 0 Never
- 1 Occasionally – less than once per week
- 2 Frequently – once or more per week
- 3 Daily

**Q32. How much does your prolapse bother you?**

- 0 Not at all
- 1 Slightly
- 2 Moderately
- 3 Greatly

**Other Symptoms:** (problems: walking / sitting, pain, vaginal bleeding)

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**SEXUAL FUNCTION**

( \_\_\_\_ /21)

**Q33. Are you sexually active?**

- No
- Less than once per week
- Once or more per week
- Daily or most days

*If you are not sexually active, please continue to answer questions 34 & 42.*

**Q34. If you are not sexually active, please tell us why?**

- Do not have a partner
- I am not interested
- My partner is unable
- Vaginal dryness
- Too painful
- Embarrassment due to the prolapse/incontinence
- Other reasons: \_\_\_\_\_

**Q35. Do you have sufficient vaginal lubrication during intercourse?**

- 0 Yes
- 1 No

**Q36. During intercourse vaginal sensation is:**

- 0 Normal / pleasant
- 1 Minimal
- 1 Painful
- 3 None

**Q37. Do you feel that your vagina is too loose or lax?**

- 0 Never
- 1 Occasionally
- 2 Frequently
- 3 Always

**Q38. Do you feel that your vagina is too tight?**

- 0 Never
- 1 Occasionally
- 2 Frequently
- 3 Always

**Q39. Do you experience pain with sexual intercourse?**

- 0 Never
- 1 Occasionally
- 2 Frequently
- 3 Always

**Q40. Where does the pain during intercourse occur?**

- 0 Not applicable, I do not have pain
- 1 At the entrance to the vagina
- 1 Deep inside, in the pelvis
- 2 Both at the entrance & in the pelvis

**Q41. Do you leak urine during sexual intercourse?**

- 0 Never
- 1 Occasionally
- 2 Frequently
- 3 Always

**Q42. How much do these sexual issues bother you?**

- Not applicable
- 0 Not at all
- 1 Slightly
- 2 Moderately
- 3 Greatly

**Q43. Other symptoms?**

(faecal incontinence, vaginismus etc)

# CLINICAL EXAMINATION

- **Mobility**
- **Abdomen**
- **External genitalia**
- **Vaginal epithelium**
- **Pelvic organ prolapse**
- **Bimanual examination – pelvic mass**
- **Limited neurological exam**

# INVESTIGATIONS AVAILABLE

	Flags	Results	Reference Range	
<b>Urine Chemistry/Micro (Final)</b>				
<u>Colour</u>		YELLOW		2023-Oct-04 7:00 PM
<u>Appearance</u>	N	CLEAR	CLEAR	2023-Oct-04 7:00 PM
<u>pH</u>	N	7.0	5.0 - 8.0	2023-Oct-04 7:00 PM
<u>Specific Gravity</u>		<=1.005		2023-Oct-04 7:00 PM
		Low specific gravity indicates dilute urine. Suggest repeat testing with first morning urine if clinically indicated.		
<u>Protein</u>	N	Neg	Negative	g/L 2023-Oct-04 7:00 PM
<u>Glucose</u>	N	Neg	Negative	mmol/L 2023-Oct-04 7:00 PM
<u>Ketones</u>	N	Neg	Negative	mmol/L 2023-Oct-04 7:00 PM
<u>Hemoglobin</u>	N	Neg	Negative	RBC/uL 2023-Oct-04 7:00 PM
<u>Nitrite</u>	N	Neg	Negative	2023-Oct-04 7:00 PM
<u>Leukocytes</u>	N	Neg	Negative	WBC/uL 2023-Oct-04 7:00 PM

Notes

	Flags	Results	Reference Range	
<b>Creatinine/eGFR (Final)</b>				
<u>Creatinine</u>	N	63	50 - 90	umol/L 2023-Oct-04 2:49 PM
<u>Estimated GFR</u>	N	86	>= 60	mL/min/1.73 sq m 2023-Oct-04 2:49 PM
<u>Pathologist Review</u>		See Comment		2023-Oct-04 2:49 PM
		Kidney function estimate based on assumption of a stable serum creatinine: diet, drugs, pregnancy, clinical state and muscle mass will affect accuracy of the estimate. Urinary ACR may assist interpretation. See BCGuidelines.ca Chronic Kidney Disease in Adults (2019) <a href="https://www2.gov.bc.ca/assets/gov/health/practitioner-pro/bc-guidelines/ckd-full-guideline.pdf">https://www2.gov.bc.ca/assets/gov/health/practitioner-pro/bc-guidelines/ckd-full-guideline.pdf</a> .		



# Bladder Diary Sample



This simple chart allows you to record the fluid you drink and the urine you pass over 3 days (not necessarily consecutive) in the week prior to your clinic appointment. This can provide valuable information.

Please fill in approximately when and how much fluid you drink and the type of liquid.

Please fill in the time and amount (in mls, or ounces) of urine passed, and mark with a star if you have leaked or mark with a "P" if you have needed to change your pad.

Here is an example of a filled chart to help you complete your own more easily.

Date/Time DD.MM.YY	Liquid Intake (ml)	Volume of Urine (ml)	Leaks	Pad Change
21.02.06			*	
0215		150		
0715		250		
0800	1 cup of coffee			
0820		60	*	P
0930	Cup orange juice		*	



## Ultrasound Renal/Bladder

The kidneys are normal in size and appearance. The right kidney measures 8.8 cm in length and left measures 9.9 cm.

Normal prevoid bladder. No postvoid residual.

**IMPRESSION:** No abnormality demonstrated.

## BLADDER SCAN



# URINE CYTOLOGY

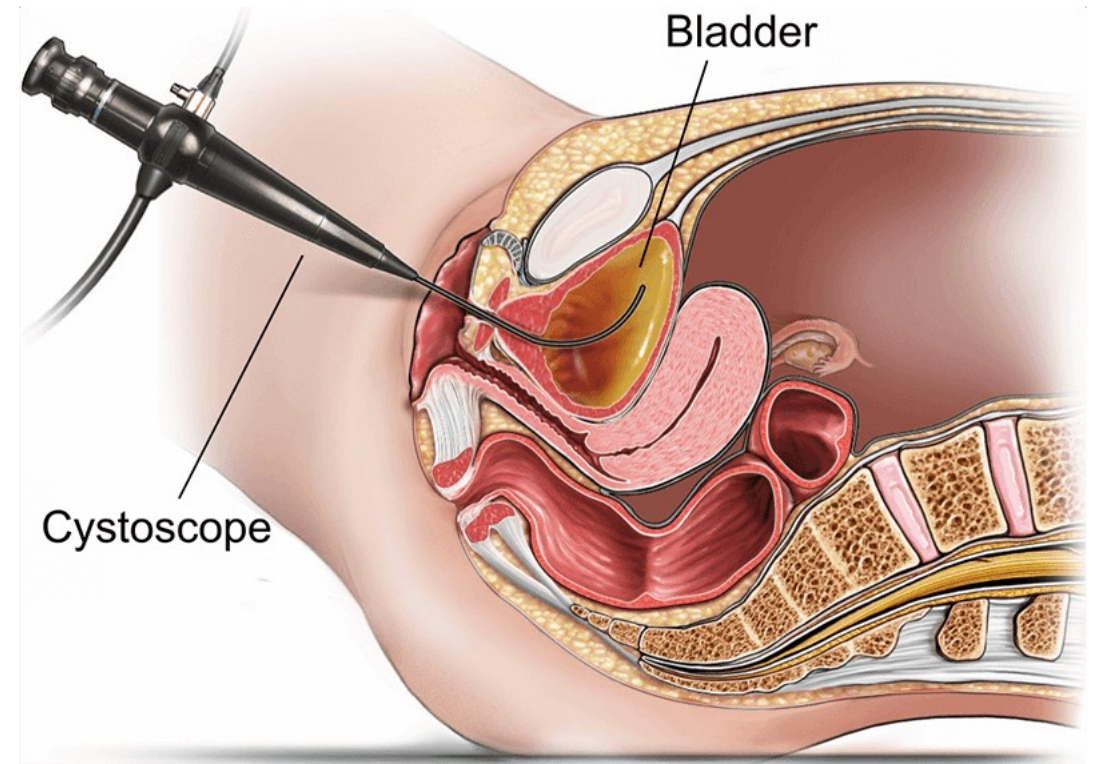
## DIAGNOSIS

A:Urine:

Specimen satisfactory for cytologic evaluation.

Negative for high grade urothelial carcinoma.

## CYSTOSCOPY



# MULTICHANNEL URODYNAMICS

Neurological issues

Complicated SI – prior to surgery

Symptoms of urgency, incomplete emptying, incontinence associated with chronic urinary retention, functional impairment, or continuous leakage

Recurrent urinary tract infection†

Previous extensive or radical pelvic surgery (eg, radical hysterectomy)

Prior anti-incontinence surgery or complex urethral surgery (eg, urethral diverticulectomy or urethrovaginal fistula repair)

Presence of voiding symptoms: hesitancy, slow stream, intermittency, straining to void, spraying of urinary stream, feeling of incomplete voiding, need to immediately revoid, postmicturition leakage, position-dependent micturition, and dysuria

Presence of neurologic disease, poorly controlled diabetes mellitus, or dementia

Symptoms of vaginal bulge or known POP beyond the hymen confirmed by physical examination, presence of genitourinary fistula, or urethral diverticulum

Absence of urethral mobility

Greater than or equal to 150 mL



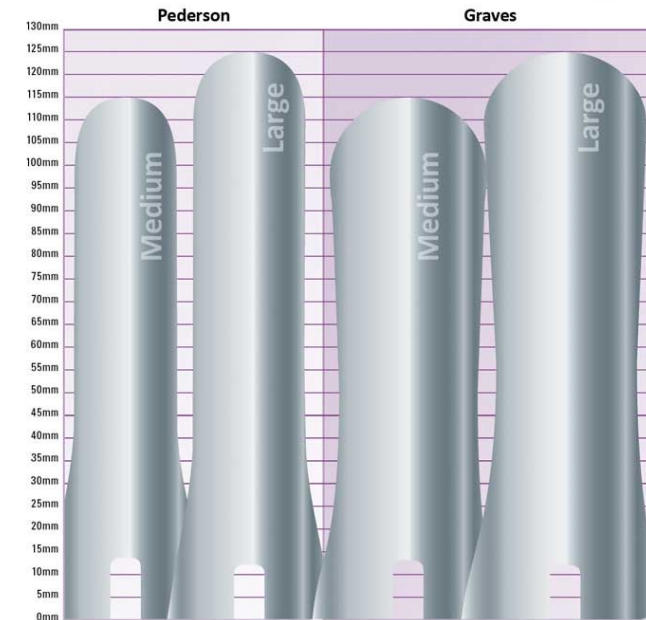
# **CASE 1.**

- **56 years old. Nulliparous. No primary care health provider.**
- **New sexual partner in past 14 months.**
- **Previous renal calculi.**
- **Dyspareunia, urinary urgency, frequency. No incontinence.**
- **Coital associated UTI's. Four courses of antibiotics in past 6 months.**
- **Vulvar/vaginal irritation- treated for yeast infection.**
- **Telephone visit and referred to urology and gynecology.**



## Examination:

- General health excellent
- External genitalia – Lichen sclerosus
- Markedly atrophic vaginal epithelium. Discomfort inserting a well lubricated Pedersen speculum
- PAPANICOLAOU test
- Bimanual examination - normal





<u>Colour</u>		YELLOW	
<u>Appearance</u>	N	CLEAR	CLEAR
<u>pH</u>	N	6.5	5.0 - 8.0
<u>Specific Gravity</u>		1.010	
<u>Protein</u>	N	Neg	Negative
<u>Glucose</u>	N	Neg	Negative
<u>Ketones</u>	N	Neg	Negative
<u>Hemoglobin</u>	N	Neg	Negative
<u>Nitrite</u>	A	POS	Negative
<u>Leukocytes</u>	N	Neg	Negative

Urine chlamydia and GC - negative

#### Report Status

Final

<u>Organism 1</u>	A	1) ESCHERICHIA COLI OVER 100 M CFU/L - Cefazolin results predict results for cephalexin and cefuroxime for the treatment of uncomplicated UTI only.
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#### **Antibiotic Susceptibility**

**Org 1**

<u>Ampicillin</u>	R
<u>Cefazolin</u>	R
<u>Cefixime</u>	S
<u>Ceftriaxone</u>	S
<u>Trimethoprim-Sulfa</u>	S
<u>Ciprofloxacin</u>	S
<u>Gentamicin</u>	S
<u>Tetracycline</u>	R
<u>Nitrofurantoin</u>	S
<u>Fosfomicin</u>	S

This and the preceding tests were performed at Victoria Reference Laboratory

**Ultrasound  
Renal/Bladder**

The right kidney measures 11 cm. A 11 mm cyst is present.

The left kidney measures 10 cm.

No evidence of hydronephrosis or renal calculi.

The bladder was partially filled and unremarkable with a prevoid volume of 205 cc and a postvoid volume of 40 cc.

# MANAGEMENT

- **A lot to explain – atrophy, LS, UTI's.**
- **Nitrofurantoin 100mg bid for 5 days.**
- **Estrone vaginal cream 0.5 g daily for 10 days then twice weekly.**
- **Nitrofurantoin 100mg with sexual activity.**

# **FOLLOW UP**

- **4 months, or sooner if problems.**
- **Plan long term care and follow-up.**
- **Estrone vaginal cream 0.5g twice weekly or other vaginal E.**
- **Clobetasol ointment twice weekly.**
- **Trial of stopping nitrofurantoin.**
- **Annual examination.**



# Recurrent Uncomplicated Urinary Tract Infections in Women: AUA/CUA/SUFU Guideline (2022)

Continuous antimicrobial prophylaxis regimens for women with rUTIs have been recommended by several trials.<sup>1</sup> prophylaxis include the following:

- TMP 100mg once daily
- TMP–SMX 40mg/200mg once daily
- TMP–SMX 40mg/200mg thrice weekly
- Nitrofurantoin monohydrate/macrocrystals 50mg daily
- Nitrofurantoin monohydrate/macrocrystals 100mg daily
- Cephalexin 125mg once daily
- Cephalexin 250mg once daily
- Fosfomycin 3g every 10 days

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Recommended instructions for antibiotic prophylaxis related to sexual intercourse include taking a single dose of an antibiotic immediately before or after sexual intercourse. Dosing options for prophylaxis include the following:

- TMP–SMX 40mg/200mg
- TMP–SMX 80mg/400mg
- Nitrofurantoin 50–100mg
- Cephalexin 250mg

# **NON ANTIBIOTIC PROPHYLAXIS**

- **Vaginal estrogen**
- **Adequate fluid intake**
- **Cranberry**
- **D-mannose**
- **Methenamine**
- **Probiotics**
- **Vaginal DHEA**
- **Ospemifene**

## **CASE 2**

- **64 years old. 1 C/S. 1 SVD.**
- **TVT – 2004.**
- **Urinary urgency/frequency – urge incontinence.**
- **Incomplete voiding.**
- **Previous UTI's – none for about 6 years.**
- **Vaginal dryness and irritation.**
- **Bulge vaginally at end of day.**
- **Not sexually active – very painful, not interested, ED, no bother.**
- **Smoker**

**Q1. How many times do you pass urine in a day?**

- 0 Up to 7  
 1 Between 8-10  
 2 Between 11-15  
 3 More than 15

**Q2. How many times do you get up at night to pass urine?**

- 0 0-1  
 1 2  
 2 3  
 3 More than 3 times

**Q3. Do you wet the bed before you wake up at night?**

- 0 Never  
 1 Occasionally - less than once per week  
 2 Frequently - once or more per week  
 3 Always - every night

**Q4. Do you need to rush/hurry to pass urine when you get the urge?**

- 0 Can hold on  
 1 Occasionally have to rush – less than once/week  
 2 Frequently have to rush – once or more/week  
 3 Daily

**Q5. Does urine leak when you rush or hurry to the toilet or can't you make it in time?**

- 0 Not at all  
 1 Occasionally – less than once per week  
 2 Frequently – once or more per week  
 3 Daily

**Q6. Do you leak with coughing, sneezing, laughing or exercising?**

- 0 Not at all  
 1 Occasionally – less than once per week  
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**Q7. Is your urinary stream (urine flow) weak, prolonged or slow?**

- 0 Never  
 1 Occasionally – less than once per week  
 2 Frequently – once or more per week  
 3 Daily

**Q8. Do you have a feeling of incomplete bladder emptying?**

- 0 Never  
 1 Occasionally – less than once per week  
 2 Frequently – once or more per week  
 3 Daily

**Q9. Do you need to strain to empty your bladder?**

- 0 Never  
 1 Occasionally – less than once per week  
 2 Frequently – once or more per week  
 3 Daily

**Q10. Do you have to wear pads because of urinary leakage?**

- 0 None - Never  
 1 As a precaution  
 2 When exercising / during a cold  
 3 Daily

**Q11. Do you limit your fluid intake to decrease urinary leakage?**

- 0 Never  
 1 Before going out  
 2 Moderately  
 3 Always

**Q12. Do you have frequent bladder infections?**

- 0 No  
 1 1-3 per year  
 2 4-12 per year  
 3 More than one per month

**Q13. Do you have pain in your bladder or urethra when you empty your bladder?**

- 0 Never  
 1 Occasionally – less than once per week  
 2 Frequently – once or more per week  
 3 Daily

**Q14. Does urine leakage affect your routine activities like recreation, socializing, sleeping, shopping etc?**

- 0 Not at all  
 1 Slightly  
 2 Moderately  
 3 Greatly

**Q15. How much does your bladder problem bother you?**

- 0 Not at all  
 1 Slightly  
 2 Moderately  
 3 Greatly

**PROLAPSE SYMPTOMS** (\_\_\_\_/15)

**Q28. Do you have a sensation of tissue protrusion/lump/bulging in your vagina?**

0 Never  
 1 Occasionally – less than once per week  
 2 Frequently – once or more per week  
 3 Daily

**Q29. Do you experience vaginal pressure or heaviness or a dragging sensation?**

0 Never  
 1 Occasionally – less than once per week  
 2 Frequently – once or more per week  
 3 Daily

**Q30. Do you have to push back your prolapse in order to void?**

0 Never  
 1 Occasionally – less than once per week  
 2 Frequently – once or more per week  
 3 Daily

**Q31. Do you have to push back your prolapse to empty your bowels?**

0 Never  
 1 Occasionally – less than once per week  
 2 Frequently – once or more per week  
 3 Daily

**Q32. How much does your prolapse bother you?**

0 Not at all  
 1 Slightly  
 2 Moderately  
 3 Greatly

**Other Symptoms:** (problems: walking / sitting, pain, vaginal bleeding)

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

<p><b>Q33. Are you sexually active?</b></p> <p><input type="checkbox"/> No</p> <p><input type="checkbox"/> Less than once per week</p> <p><input type="checkbox"/> Once or more per week</p> <p><input type="checkbox"/> Daily or most days</p> <p><i>If you are not sexually active, please continue to answer questions 34 &amp; 42.</i></p>	<p><b>Q34. If you are not sexually active, please tell us why?</b></p> <p><input type="checkbox"/> Do not have a partner</p> <p><input type="checkbox"/> I am not interested</p> <p><input type="checkbox"/> My partner is unable</p> <p><input type="checkbox"/> Vaginal dryness</p> <p><input type="checkbox"/> Too painful</p> <p><input type="checkbox"/> Embarrassment due to the prolapse/incontinence</p> <p><input type="checkbox"/> Other reasons: _____</p>	<p><b>Q35. Do you have sufficient vaginal lubrication during intercourse?</b></p> <p>0 Yes</p> <p>1 No</p>
<p><b>Q36. During intercourse vaginal sensation is:</b></p> <p>0 Normal / pleasant</p> <p>1 Minimal</p> <p>1 Painful</p> <p>3 None</p>	<p><b>Q37. Do you feel that your vagina is too loose or lax?</b></p> <p>0 Never</p> <p>1 Occasionally</p> <p>2 Frequently</p> <p>3 Always</p>	<p><b>Q38. Do you feel that your vagina is too tight?</b></p> <p>0 Never</p> <p>1 Occasionally</p> <p>2 Frequently</p> <p>3 Always</p>
<p><b>Q39. Do you experience pain with sexual intercourse?</b></p> <p>0 Never</p> <p>1 Occasionally</p> <p>2 Frequently</p> <p>3 Always</p>	<p><b>Q40. Where does the pain during intercourse occur?</b></p> <p>0 Not applicable, I do not have pain</p> <p>1 At the entrance to the vagina</p> <p>1 Deep inside, in the pelvis</p> <p>2 Both at the entrance &amp; in the pelvis</p>	<p><b>Q41. Do you leak urine during sexual intercourse?</b></p> <p>0 Never</p> <p>1 Occasionally</p> <p>2 Frequently</p> <p>3 Always</p>
<p><b>Q42. How much do these sexual issues bother you?</b></p> <p><input type="checkbox"/> Not applicable</p> <p><input checked="" type="checkbox"/> Not at all</p> <p>1 Slightly</p> <p>2 Moderately</p> <p>3 Greatly</p>	<p><b>Q43. Other symptoms?</b> (faecal incontinence, vaginismus etc)</p>	

# EXAMINATION

- Markedly atrophic epithelium
- Stage 2 anterior prolapse, stage 1 descent of cervix, stage 2 posterior
- Renal US normal, residual volume – 150ml

## Urine Chemistry/Micro (Final)

Colour		YELLOW	
Appearance	N	CLEAR	CLEAR
pH	N	6.0	5.0 - 8.0
Specific Gravity		1.010	
Protein	N	Neg	Negative
Glucose	N	Neg	Negative
Ketones	N	Neg	Negative
Hemoglobin	A	80	Negative
		Please note the Hemoglobin translation table: 25 RBC/uL = 1+ 80 RBC/uL = 2+ 200 RBC/uL = 3+	
Nitrite	N	Neg	Negative
Leukocytes	A	15	Negative

## DIAGNOSIS

A:Urine:

Specimen satisfactory for cytologic evaluation.

Negative for high grade urothelial carcinoma.

- **Commenced on estrone vaginal cream 0.5 g – 2/wk.**
- **Fitted with No 4 ring pessary with support – stress incontinence.**
- **Changed to No 4 continence ring pessary.**
- **Estring (estradiol).**
- **Cystoscopy – atrophic urothelium, trabeculation, squamous metaplasia.**
- **Followed 3 monthly – satisfactory.**





# WHEN TO REFER ?

- **Symptoms not improving.**
- **Stage 3 POP.**
- **Residual volume >150ml.**
- **Suspected neurological disease.**
- **Hematuria with no UTI – don't ignore urogenital tract bleeding.**

# **ESTROGEN AND THE PELVIC FLOOR**

- **VE improves LUTS - frequency, urgency and UI in the menopause.**
- **VE improves the vaginal microbiome and reduces UTI.**
- **Overlap with GSM, OAB, IC/bladder pain syndrome.**
- **Little evidence of benefit with POP.**
- **Systemic HRT has no documented benefit on LUTS and may make them worse.**

# Safety data of vaginal E keeps getting better

Clinical Breast Cancer. 2023 Aug 22;

## [Safety and Serum Estradiol Levels in Hormonal Treatments for Vulvovaginal Atrophy in Breast Cancer Survivors: A Systematic Review and Meta-Analysis.](#)

*Ana Carolina M Comini, Bruno M Carvalho, Matheus José Barbosa Moreira, Pedro C Abrahão Reis, Luisa Colapietro, Jane Northern, Felipe Batalini*

PMID: [37806915](#)

JAMA Oncology. 2023 Nov 2;

## [Vaginal Estrogen Therapy Use and Survival in Females With Breast Cancer.](#)

*Lauren McVicker, Alexander M Labeit, Carol A C Coupland, Blánaid Hicks, Carmel Hughes, Úna McMEnamin, Stuart A McIntosh, Peter Murchie, Chris R Cardwell*

PMID: [37917089](#)

- **Role of lasers – fractional CO2, Erbium:YAG.**

- **Physiotherapy.**

BJU International. 2022 Nov; 130 : 11-22.

## [Guideline of guidelines: management of recurrent urinary tract infections in women.](#)

*Michael Kwok, Stephen McGeorge, Johanna Mayer-Coverdale, Bianca Graves, David L Paterson, Patrick N A Harris, Rachel Esler, Caroline Dowling, Sumudu Britton, Matthew J Roberts*

PMID: [35579121](#)

Maturitas. 2021 Jan; 143 : 223-230.

## [Management of urinary incontinence in postmenopausal women: EMAS clinical guide.](#)

*Eleonora Russo, Marta Caretto, Andrea Giannini, Johannes Bitzer, Antonio Iannaccone, Chedraui, Fatih Durmusoglu, Risto Erkkola, Dimitrios G Goulis, Ludwig Kieser, Lindén Hirschberg, Patrice Lopes, Amos Pines, Margaret Rees, Mick van Tricht*

PMID: [33008675](#)

Obstetrics and Gynecology. 2023 Sep 1; 142 (3) : 660-668.

## [Safety of Vaginal Estrogen Therapy for Genitourinary Symptoms of Menopause in Women With a History of Breast Cancer.](#)

*Pranjal Agrawal, Sajya M Singh, Corey Able, Kathryn Dumas, Jaden Ko*

PMID: [37535961](#)

Medicina. 2023 Jan 27; 59 (2).

## [Pre- versus Post-Menopausal Onset of Overactive Bladder and the Response to Vaginal Estrogen Therapy: A Prospective Study.](#)

*Yoav Baruch, Marco Torella, Sarah De Bastiani, Michele Meschia, Massimo Candiani, Nicola Colacurci, Stefano Salvatore*

PMID: [36837446](#)

Curēus. 2023 Sep; 15 (9) : e45495.

## [Vaginal Laser Treatment for the Genitourinary Syndrome of Menopause in Breast Cancer Survivors: A Narrative Review.](#)

*Nobuo Okui*

PMID: [37731685](#)

Acta Obstetrica Et Gynecologica Scandinavica. 2022 Jun; 101 (6) : 657-692.

## [The evidence behind the use of LASER for genitourinary syndrome of menopause, vulvovaginal atrophy, urinary incontinence and lichen sclerosus: A state-of-the-art review.](#)

*Olivia Engholt Mortensen, Sarah Emilie Christensen, Ellen Løkkegaard*

PMID: [35484706](#)

Clinical Breast Cancer. 2023 Aug 22;

## [Safety and Serum Estradiol Levels in Hormonal Treatments for Vulvovaginal Atrophy in Breast Cancer Survivors: A Systematic Review and Meta-Analysis.](#)

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PMID: [37806915](#)

JAMA Oncology. 2023 Nov 2;

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PMID: [37917089](#)

Climacteric : the Journal of the International Menopause Society. 2021 Dec; 24 (6) : 531-532.

## [Menopause, aging and the failing pelvic floor: a clinician's view](#)

*M Caretto, G Misasi, A Giannini, E Russo, T Simoncini*

PMID: [34169785](#)

International Journal of Urology : Official Journal of the Japanese Urological Association. 2023 Jun 7;

## [Female sexual dysfunction and lower urinary tract symptoms associated with vulvovaginal atrophy symptoms: Results of the GENJA study.](#)

*Yumi Ozaki, Hikaru Tomoe, Mayuka Shimomura, Noriko Ninomiya, Yuki Sekiguchi, Yoshikazu Sato, Koichi Nagao, Yoshimitsu Takahashi, Satoru Takahashi*

PMID: [37287405](#)