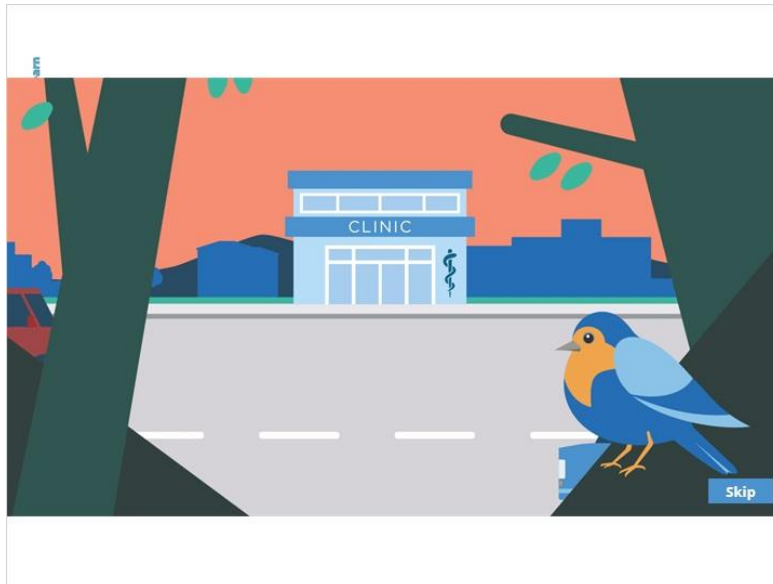


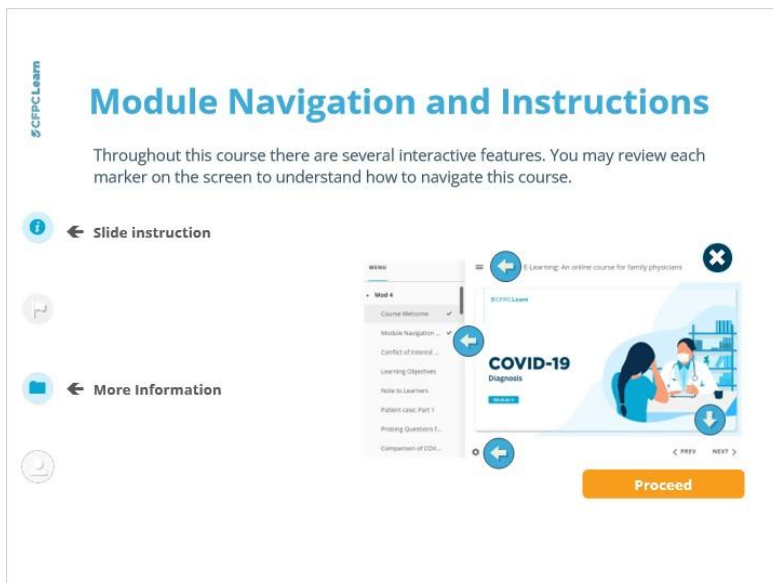
# Case 43 Micti Colate

## 1. Conflicts

### 1.1 Intro Video



### 1.2 Module Navigation and Instructions



## 1.3 Learning Objectives

CFPC Learn

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### Learning Objectives

**At the end of this module participants should be able to:**

1. Identify key factors/findings in family medicine to help establish common clinical diagnoses.
2. Evaluate best evidence/guidance and practice tools to determine preferred treatment options for patients.
3. Synthesize patient preference, evidence and experience to formulate comprehensive plans for patient cases.

Approximately 15 minutes to complete each patient case.

Proceed

## 2. Ms. Micti Colate

### 2.1 Meet Micti Colate

CFPC Learn

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### Ms Micti Colate, 70

Micti's husband (Per) was in the office today to discuss his symptoms of nocturia.

Micti was also at the appointment, and she would like to discuss similar symptoms that she is having.

Since you had a no-show, you are able to squeeze her in.

Micti is taking amlodipine 5mg PO daily for hypertension. There is no other past medical history.

Incontinence

Urgency Symptoms

What do you think?

## Incontinence (Slide Layer)

SCFPCLearn

Ms Micti Colate, 70

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Stress urinary incontinence


 occurs when there is a leakage of urine during physical exertion or increased abdominal pressure (such as during coughing).

Incontinence

Urgency Symptoms

What do you think?

X



## Symptoms (Slide Layer)

SCFPCLearn

Ms Micti Colate, 70

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Stress urinary incontinence (SUI) can:


- be the sole presenting complaint or,
- can be accompanied by urgency symptoms (overactive bladder) such as frequency, urgent need to void and nocturia, i.e., mixed symptoms.

Incontinence

Urgency Symptoms

What do you think?

X



## 2.2 Micti Colate, 70

CFPCLearn

Ms Micti Colate, 70

I have been getting up to pee at night and sometimes don't make it. I'm worried I'm going to fall. I can't see anything and sometimes I trip on the rugs.

Let's discuss your symptoms. I also think you should remove those rugs. They sound like a fall hazard.

And whenever I get a cold, it's horrible. I have to cross my legs every time I cough.

What do you think?




## 2.3 Question

(Multiple Response, 10 points, 1 attempt permitted)

CFPCLearn

For Micti, which of the following interventions is the most likely to help her symptoms of incontinence?



Micti is presenting with mixed symptoms.

☒ Pelvic floor exercises

☐ Decreasing caffeine intake

☐ Pessaries

Submit

Correct	Choice
X	Pelvic floor exercises
	Decreasing caffeine intake

Correct	Choice
	Pessaries

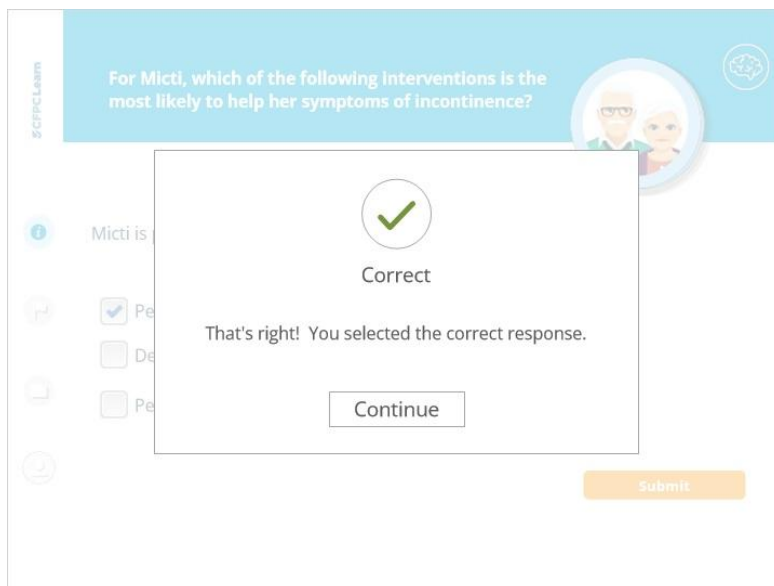
**Feedback when correct:**

That's right! You selected the correct response.

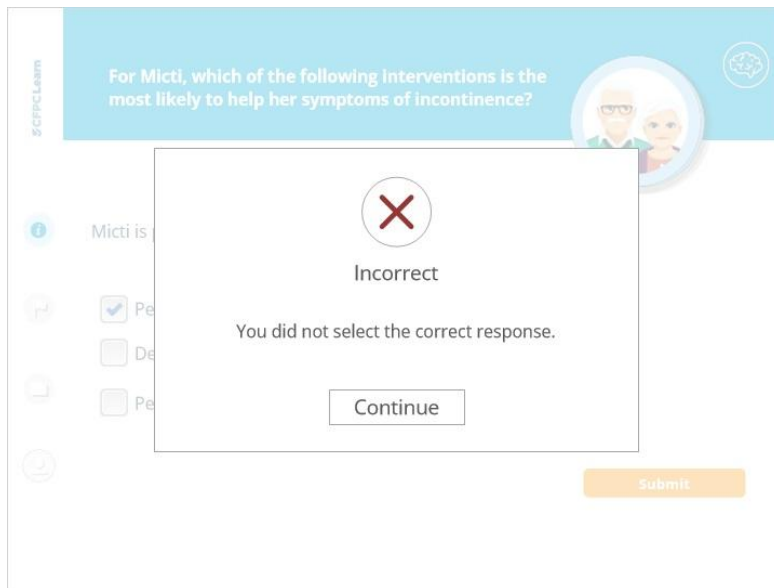
**Feedback when incorrect:**

You did not select the correct response.

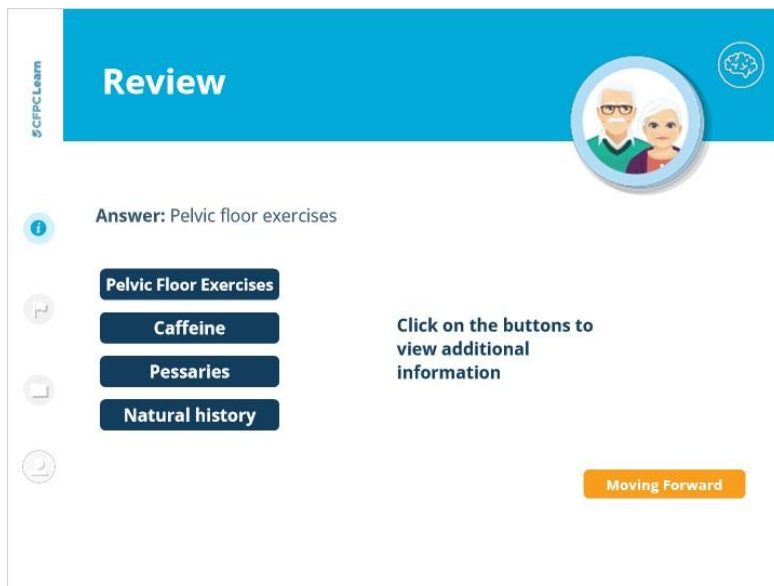
**Correct (Slide Layer)**



## Incorrect (Slide Layer)





## 2.4 Review



## Pelvic Floor (Slide Layer)

SCFPCLearn

Review



Answer: Pelvic floor exercises

Pelvic Floor Exercises

Caffeine

Pessaries

Natural history

**Pelvic floor exercises:** Systematic review



- Self-reported cure or improvement: 74% (with exercises) versus 11% (control)
- Leakage (baseline 1-2/day): reduced by one episode per day over control.
- Patient satisfaction: 71% (exercises) versus 13% (control)
- Bottom Line: Pelvic floor exercises work!
- This [video](#) provides exercise instructions for patients.

Moving Forward

## Pessaries (Slide Layer)

SCFPCLearn

Review



Answer: Pelvic floor exercises

Pelvic Floor Exercises

Caffeine

Pessaries

Natural history

**Pessaries:** One small two-week study (55 women)



- Incontinence episodes: reduced by 32% with pessary versus 8% in the control group
- Satisfaction (scale 0-100, higher score = better): 60 points in the pessary group versus 5 points (control group)
- Cost \$50-\$150; ~10-40% have unsuccessful first fittings; multiple appointments may be required.
- Bottom line: More evidence is needed!

Moving Forward

## Caffine (Slide Layer)

SCFPCLearn

Review



Answer: Pelvic floor exercises

Pelvic Floor Exercises

Caffeine

Pessaries

Natural history

**Caffeine:** An RCT compared education about caffeine reduction and continued caffeine intake (95 patients) and found small but statistical differences between groups.

- Voids per day (baseline: ~11): Reduced to ~7 (education) and ~8 (continue caffeine).
- Urgency over 24h (baseline: ~5): Reduced to ~1.5 (education) versus ~3 (continue caffeine).
- Leakage episodes: no difference
- Consideration: Is it the caffeine or the decreased fluid intake?
- Bottom line: We need a bigger RCT.



Moving Forward

RCT: randomized controlled trial

## Natural history (Slide Layer)

SCFPCLearn

Review



Answer: Pelvic floor exercises

Pelvic Floor Exercises

Caffeine

Pessaries

Natural history

**Natural history:**

Patients with incontinence symptoms are unlikely to improve without intervention. Based on RCT data, only ~11% of patients who were in control groups reported cure or improvement.

Moving Forward



## 2.5 Micti Colate

CFPCLearn


Ms Micti Colate, 70

Let's talk about pelvic exercises. Imagine that you are trying to hold back urine. Try to squeeze your muscles without squeezing your buttock or stomach.

If you want, you can put 1-2 fingers into your vagina to make sure that the right muscles are being tightened. You should feel the squeeze around your fingers. Try at least 8 contractions 3 times a day.

Hmmm... I'm not sure what to say...  
Any medications?

What do you think?





## 2.6 Question

(Multiple Response, 10 points, 1 attempt permitted)

CFPCLearn

Which of the following about medications for overactive bladder is true?





☒

Anti-cholinergics are as effective as  $\beta$ 3-agonists (e.g., Mirabegron)

☐

~10% of patients using anti-cholinergics will develop urinary retention

☐

~10% of patients using  $\beta$ 3-agonists will develop hypertension

Submit

Correct	Choice
X	Anti-cholinergics are as effective as $\beta$ 3-agonists (e.g., Mirabegron)
	~10% of patients using anti-cholinergics will develop urinary retention

Correct	Choice
---------	--------

~10% of patients using $\beta$ 3-agonists will develop hypertension
---

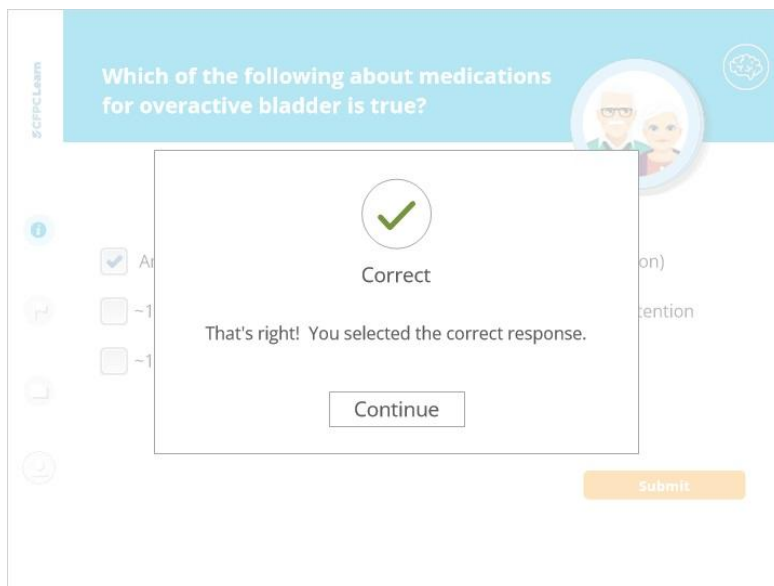
**Feedback when correct:**

That's right! You selected the correct response.

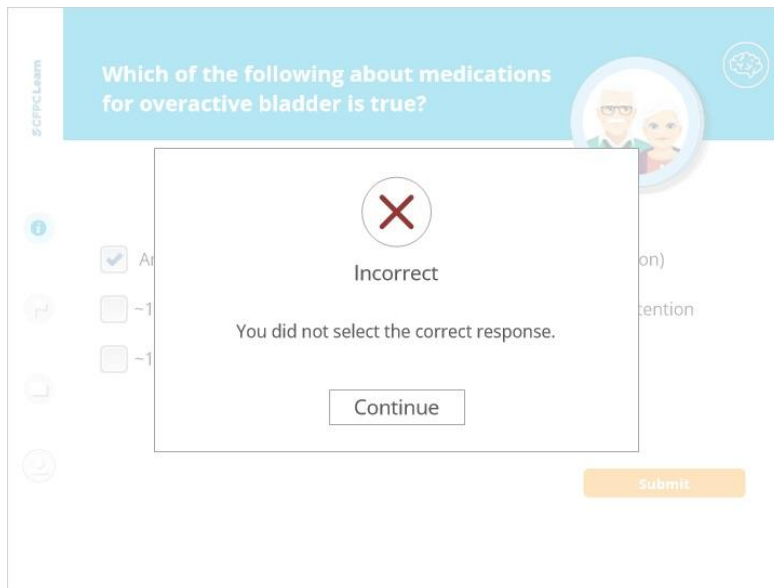
**Feedback when incorrect:**

You did not select the correct response.

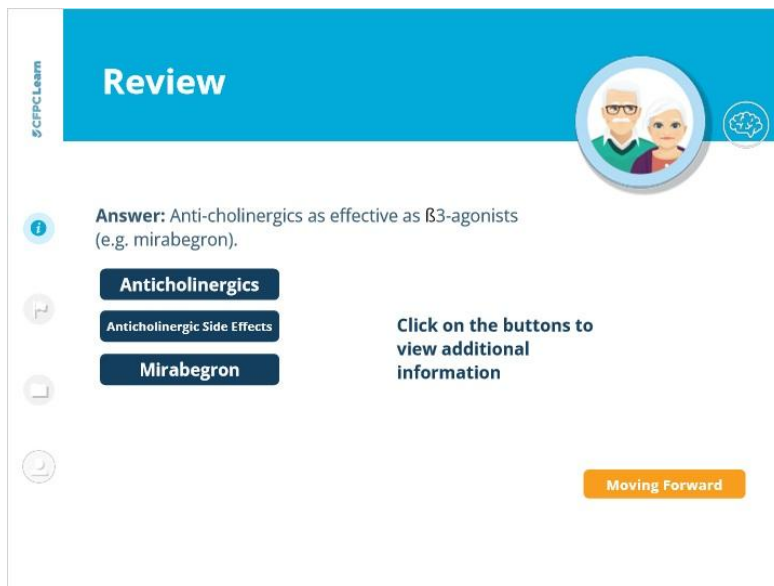
**Correct (Slide Layer)**



## Incorrect (Slide Layer)




## 2.7 Review



## AC (Slide Layer)

SCFPCLearn

# Review



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**Answer:** Anti-cholinergics as effective as  $\beta 3$ -agonists (e.g. mirabegron).

Anticholinergics

Anticholinergic Side Effects

Mirabegron

- Example: Cure or improvement was achieved by 58% patients on anti-cholinergics versus 42% on placebo (number needed to treat = 7)
- Meta-analysis of seven RCTs : similar efficacy for between anti-cholinergics (tolterodine, solifenacin) and  $\beta 3$ -agonists (mirabegron) for frequency of micturition, urgency, nocturia and incontinence

Moving Forward

## Side Effects (Slide Layer)

SCFPCLearn

# Review



1

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**Answer:** Anti-cholinergics as effective as  $\beta 3$ -agonists (e.g. mirabegron).

Anticholinergics

Anticholinergic Side Effects


Mirabegron

**Anti-cholinergic side effects:** blurred vision, constipation, abdominal pain, dizziness, cough, dry eyes, dyspepsia, urinary tract infection. Examples:


- Dry mouth: 22% anti-cholinergic versus 6% control
- Withdrawal for adverse events: 5% anticholinergic versus 3% placebo.
- Urinary retention: 1.2% anti-cholinergic versus 0.3% (placebo). Patients with elevated post-void residual (and at higher risk of urinary retention) often excluded from trials.

Moving Forward

## mirabegron (Slide Layer)



### Review



**Answer:** Anti-cholinergics as effective as  $\beta_3$ -agonists (e.g. mirabegron).

**Anticholinergics**

**Anticholinergic Side Effects**


**Mirabegron**

**Mirabegron:**

- Meta-analysis of RCTs (e.g. mirabegron 50mg): no increased risk of hypertension (compared to anti-cholinergic agents).
- Contraindications: uncontrolled hypertension (>180/110). Case reports of TIA / strokes.
- Supra-therapeutic doses (200mg): increased heart rate and blood pressure in healthy volunteers.

Moving Forward


## 2.8 Micti Colate



### Ms Micti Colate, 70

I think you had talked about a different pill for Per. Is it something that I could take? Or is it just for men?

Moving On









## 2.9 Question

(Multiple Response, 10 points, 1 attempt permitted)

SCFPCLearn

Which of the following pharmacological agents has been studied in women for incontinence?

☐ Alpha-blockers (Tamsulosin)  
☐ Tadalafil  
☒ Both

Submit

Correct	Choice
	Alpha-blockers (Tamsulosin)
	Tadalafil
X	Both

**Feedback when correct:**

That's right! You selected the correct response.

**Feedback when incorrect:**

You did not select the correct response.

### Correct (Slide Layer)

The screenshot shows a quiz interface with a light blue header. The header contains the text "Which of the following pharmacological agents has been studied in women for incontinence?" and a circular icon with a couple. On the left, there is a vertical sidebar with icons for a home, a list, a document, and a clock. The main content area displays a confirmation dialog box with a green checkmark icon, the word "Correct", and the text "That's right! You selected the correct response." Below the text is a "Continue" button. In the bottom right corner, there is a yellow "Submit" button. The background shows a list of options with checkboxes: "Al...", "Ta...", and "Bo..." (partially visible).

Which of the following pharmacological agents has been studied in women for incontinence?

Correct

That's right! You selected the correct response.

Continue

Submit

### Incorrect (Slide Layer)

The screenshot shows the same quiz interface as above, but with an incorrect response confirmation dialog box. The dialog box features a red 'X' icon, the word "Incorrect", and the text "You did not select the correct response." Below the text is a "Continue" button. The yellow "Submit" button remains in the bottom right corner. The background options are the same as in the previous screenshot.

Which of the following pharmacological agents has been studied in women for incontinence?


Incorrect

You did not select the correct response.



Continue

Submit

## 2.10 Review



# Review



**Answer:** Both agents have evidence in treating women with incontinence.


Alpha-blockers

Tadalafil



Click on the buttons to view additional information

Moving Forward

### Alpha Blockers (Slide Layer)



# Review



**Answer:** Both agents have evidence in treating women with incontinence.

Alpha-blockers

Tadalafil

**Alpha-blockers:** Have been studied in systematic reviews, using a 35-point symptom score (higher scores=worse symptoms). Over placebo:

- In men (26 RCTs): decreased symptom score by ~1.9
- In women (4 RCTs): decrease symptom score by ~1.5
- The minimal clinically important difference is 3-4 points. It is not known how many patients reach the MCID. There are no direct comparisons between anticholinergic agents.
- **\*\*NOT APPROVED IN WOMEN\*\***


Moving Forward



## Tadalafil (Slide Layer)

SCFPCLearn

### Review



**Answer:** Both agents have evidence in treating women with incontinence.

**Alpha-blockers**

**Tadalafil**

**Tadalafil:** An RCT of 96 women with overactive bladder compared tadalafil with placebo.


- At 24 weeks, 42% of patients on tadalafil had >50% improvement in symptoms, compared to 2% on placebo. However, tadalafil is not currently approved for use in women.
- As discussed with Per Colate, Micti's husband, guidelines recommend tadalafil for men with lower urinary tract symptoms, especially if unsatisfactory ejaculatory function.

Moving Forward

## 2.11 Micti Colate

SCFPCLearn

### Ms Micti Colate, 70



My friend has some cream she uses in her private area...

Moving On

## 2.12 Question

(Multiple Response, 10 points, 1 attempt permitted)

SCFCLearn

Choose the most appropriate answer. Vaginal estrogen for post-menopausal women will likely improve:

☐ Vaginal dryness

☐ Dyspareunia

☐ Urinary frequency

☐ Urinary incontinence

☒ All of the above

Submit

Correct	Choice
	Vaginal dryness
	Dyspareunia
	Urinary frequency
	Urinary incontinence
X	All of the above

**Feedback when correct:**

That's right! You selected the correct response.

**Feedback when incorrect:**

You did not select the correct response.

## Correct (Slide Layer)

SCFPCLearn

Choose the most appropriate answer. Vaginal estrogen for post-menopausal women will likely improve:


☐ Va

☐ Dy

☐ Ur

☐ Ur

☒ All



Correct

That's right! You selected the correct response.

## Incorrect (Slide Layer)

SCFPCLearn

Choose the most appropriate answer. Vaginal estrogen for post-menopausal women will likely improve:


☐ Va

☐ Dy

☐ Ur

☐ Ur


☒ All





Incorrect

You did not select the correct response.

## 2.13 Review



# Review



**Answer:** All of the above.

**Vaginal Estrogens**

**Vaginal Symptoms**


**Urinary Symptoms**

**Incontinence**



Click on the buttons to view additional information

Moving Forward

### Incontinence (Slide Layer)



# Review



**Answer:** All of the above.

**Vaginal Estrogens**

**Vaginal Symptoms**

**Urinary Symptoms**


**Incontinence**

**Incontinence:** Approximately 30% of patients had urinary incontinence at baseline.



- At 12 months, 14% on estrogens had persistent incontinence which was statistically lower than baseline. There was no difference between baseline and 12 months in the placebo group.
- Note: oral estrogens may *increase* risk of incontinence
  - One RCT: 23% of patients on estrogens had ongoing incontinence symptoms versus 14% on placebo)

Moving Forward

## Vaginal estrogens (Slide Layer)



### Review



**Answer:** All of the above.

**Vaginal Estrogens**

**Vaginal Symptoms**

**Urinary Symptoms**


**Incontinence**

**Vaginal estrogens.**



- The largest RCT included 1,612 women with vaginal symptoms and compared 25ug estradiol per vagina with placebo for 12 months.

**Moving Forward**

## Symptoms of vaginal atrophy (Slide Layer)



### Review



**Answer:** All of the above.

**Vaginal Estrogens**

**Vaginal Symptoms**

**Urinary Symptoms**

**Incontinence**

**Vaginal symptoms:**



- Symptoms of dryness, itching, burning or dyspareunia occurred in about 80% of study patients at baseline.
  - After 12 months of treatment, 16% had persistent symptoms while on estrogen versus 59% on placebo which was statistically different.
- Note: symptoms of dryness, itching and burning may be difficult to sort out from urinary symptoms


**Moving Forward**

## Urinary symptoms (Slide Layer)

SCFPCLearn

Review



**Answer:** All of the above.

Vaginal Estrogens

Vaginal Symptoms

Urinary Symptoms

Incontinence

**Urinary symptoms**, including dysuria, urinary frequency and nocturia, occurred in 50% of RCT patients at baseline.



- At 12 months, 16% of patients on estrogen had persistent symptoms compared with 36% of patients on placebo which was statistically different.






Moving Forward

## 2.14 Review

SCFPCLearn

Review







Mixed Symptoms		
<b>Stress Urinary Symptoms</b>	<b>Urgency Urinary Symptoms</b>	<b>Vaginal symptoms (dryness, dyspareunia)</b>
Pelvic Floor exercises	Mirabegron Anti-Cholinergics	Vaginal estrogen

Moving Forward





## 2.15 Create a Plan






CFPC Learn

Let's Make a Plan



Using what you have learned write a plan for the Micti. It can include any/all of the following: lifestyle intervention(s), prescription intervention(s), lab(s)/test(s) required, follow up appointment time frame, and referral required.







Fill in your plan for the patient here

See how your plan compares





## 2.16 Plan Answers

CFPC Learn

Ms. Micti Colate



This is the proposed plan for Micti. How does your plan compare?



Plan

Monitoring

Follow Up



Select details on the left to see suggested recommendations

What's in a name?

## Plan (Slide Layer)

SCFPCLearn

Ms. Micti Colate



1

2

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4


This is the proposed plan for Micti. How does your plan compare?

Plan

Monitoring

Follow Up

What's in a name?





**Plan:**  
Micti wants to think about her medication options for now. You give her a prescription for pelvic physiotherapy as she does not feel that she could do pelvic floor exercises on her own. You advise that it will take a few weeks of exercise before she notices a difference.

## Recommendations (Slide Layer)

SCFPCLearn

Ms. Micti Colate



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This is the proposed plan for Micti. How does your plan compare?

Plan

Monitoring

Follow Up

What's in a name?



**You give Micti some recommendations on incontinence products.**



- Pads can be put in underwear for small leaks.
- Pull-ups can be used if larger leaks (different absorbency levels).
- Briefs look like a diaper and may be harder to put on (some help usually needed). Extra-inserts can be added for additional absorbency (e.g. overnight).



## Name (Slide Layer)

SCFPCLearn

Ms. Micti Colate



1

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4


This is the proposed plan for Micti. How does your plan compare?

Plan

Monitoring

Follow Up



What's in a name?

 **The meaning behind Micti Colate's name:**  
Micti comes to the office with concerns about urination, or micturition.

## Follow up (Slide Layer)

SCFPCLearn

Ms. Micti Colate



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This is the proposed plan for Micti. How does your plan compare?

Plan

Monitoring

Follow Up


What's in a name?


 **Follow up:**  
You book an appointment in 3 months to discuss medications if her symptoms continue to be a concern.


## 2.17 References

SCFPC Learn

References








Thanks for visiting the clinic!

**References:** Available [here](#).



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