

How can you help your patients with an uncomplicated UTI?

DID YOU KNOW?

In Canada:

- A urinary tract infection (UTI) is the 8th most common cause of ambulatory care visits.
- A UTI is the 5th most common cause of emergency department visits.
- Almost half of all women will experience a UTI before the age of 33.
- Uncomplicated UTIs can be treated empirically with oral antibiotics.
- Pharmacists in several provinces can prescribe for this condition.

Hello! My name is Tim, and I am the pharmacist today. How can I help you?

That sounds very uncomfortable! Can I ask you a few questions to assess what is wrong?



Hello. My name is Abby, and I am hoping you can help. It burns when I pee, and I feel like I need to go all the time.

Yes, of course.

Step 1: Assess

Abby: Age 27, female, 5'7", 144 lbs.

Symptoms: Dysuria (painful urination), frequency, urgency, suprapubic discomfort, no vaginal discharge, or other vaginal symptoms

Characteristics: No nausea, vomiting, chills, fever, malaise, flank or back pain

• Pain is 4 on 1-10 scale • No red flags*

History: Last UTI diagnosed by a physician 1 year ago

- Prior treatment: Nitrofurantoin (Macrobid) 100mg PO BID x 5 days
- Effect of treatment: resolved infection

Onset: Began 2 days ago

Location: Urinary tract, suprapubic area

Aggravating factors: Urinating causes pain

Remitting factors: Drinking water helps a little

Health Status: No health conditions, no recent vaginitis, no renal dysfunction

Allergies/ Intolerances: No drug allergies, allergic to ragweed

Medication History: Combined oral contraceptive (birth control) x 9 years

- Tylenol for headaches ~ once per month

Social history: Balanced diet, walks dog every morning, teacher, no smoking, wine for social occasions, sexually active with partner of 3 years

RED FLAGS*

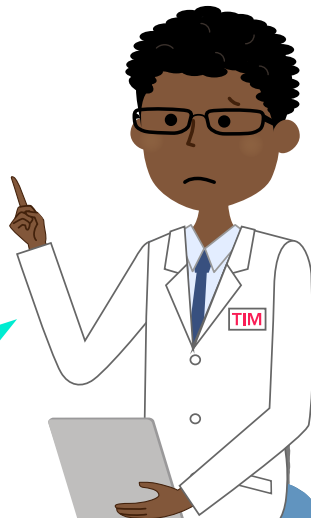
Refer if:

- No previous episodes of UTI diagnosed by physician and/or first UTI
- Previous episode of UTI within last 4 weeks
- 2+ UTIs within 6 months or 3+ within 12 months (may still prescribe for this infection)
- Immunocompromised (disease state or medications e.g., allopurinol, danazol)
- Abnormal urinary tract function or structure
- Male
- < 16 years of age or > 75 years of age
- Long Term Care patient
- Pregnancy
- Breastfeeding and infant < 1 month
- Uncontrolled diabetes
- Renal impairment
- Spinal cord injury
- History of interstitial cystitis

Differential Diagnosis:

- ✗ Pyelonephritis (upper UTI)
- ✗ Vaginitis
- ✗ Acute urethritis
- ✗ Pelvic inflammatory disease
- ✗ Interstitial cystitis
- ✗ Nephrolithiasis
- ✗ Drug-induced cystitis

Thank you for answering my questions. I believe you are experiencing an uncomplicated UTI and would benefit from antibiotic therapy.




Key factors that support an uncomplicated UTI:

- Previously diagnosed UTI
- Dysuria, frequency, urgency
- May also have suprapubic discomfort or mild hematuria (blood in urine)
- NO
 - Vaginal symptoms - discharge, itch, dyspareunia (painful intercourse)
 - Fever, chills, nausea, vomiting, flank or back pain, significant malaise
 - Significant hematuria

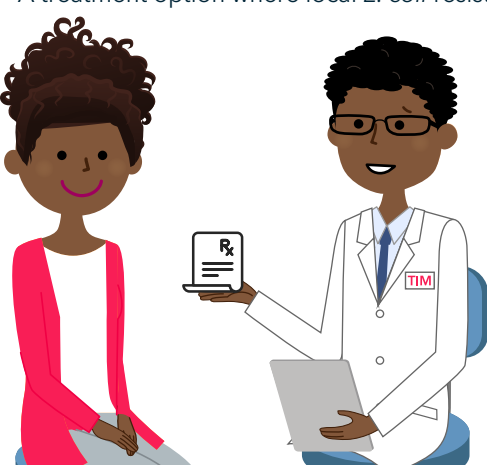
If any of these are present, refer to MD

Step 2: Consider goals of therapy and prescribe

Goals: ✓ Relieve symptoms and resolve infection. ✓ Prevent complications and recurrence.

Option	Efficacy	Safety	Adherence
Do nothing	Poor	Poor	N/A
 Nitrofurantoin 100mg BID x 5 days	Good, worked well for previous infection First line for empiric therapy Minimal resistance	Contraindicated in patients with a CrCl ≤30 ml/min Common side effects: headache, nausea, urine discoloration, gas/ bloating, oral/ vaginal candidiasis	Low cost, patient willing to take for 5 days
Sulfamethoxazole-trimethoprim 800mg/ 160mg BID x 3 days	Resistance can be a concern* Second line for empiric therapy	Ask about sulfa allergy, may cause kidney stones (rare - maintain hydration) Common side effects: nausea, rash, oral/ vaginal candidiasis	Low cost, patient willing to take for 5 days
Fosfomycin tromethamine 3g dissolved in ½ cup cold water	Slightly less effective than other options (third line) Resistance rare	Good Common side effects: diarrhea, headache, nausea, oral/ vaginal candidiasis	More expensive, one dose therapy
Trimethoprim 100mg BID x 3 days OR 200mg 1D x 3 days	Resistance can be a concern	Good, may cause kidney stones (rare - maintain hydration)	Low cost, short duration of therapy

*A treatment option where local *E. coli* resistance rates are less than 20%. Check local resistance rates through public health units.



I am prescribing Nitrofurantoin, also known as Macrobid, to be taken twice daily for five days. You had this medication in the past and it resolved your infection, so I believe this is our best option.



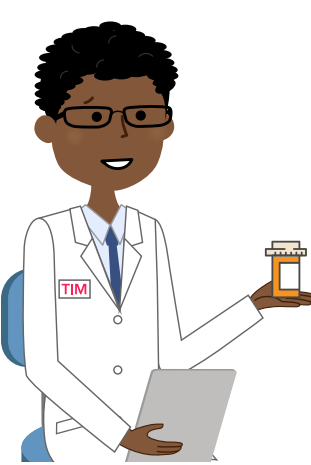
Consult the [CPS](#) for up-to-date treatment information

Step 3: Counsel the patient

Let me explain how this medication works and how to use it effectively.

Recurrence happens in about 25% of patients, so let's talk about some tips to help you avoid another UTI in the future.

- The painful urination should resolve within a few hours of starting the medication.
- Acetaminophen or Ibuprofen can be used to help with the pain.
- Symptoms should improve within 48-72 hours and resolve within 7 days.
- Common side effects of Nitrofurantoin include headache, nausea, urine discoloration, gas/bloating and oral/ vaginal candidiasis.
- Remember to finish your full course of therapy.



- Avoid spermicides if you are sexually active.
- Stay hydrated.
- Urinate after intercourse.
- Wipe front to back after urination.
- Consider drinking cranberry juice to prevent UTIs, but the data is conflicting about how effective this is.

Step 4: Plan for monitoring and follow up

I am going to follow up with you in 3 days by phone. Please call me or come into the pharmacy before that if you have any questions or concerns.

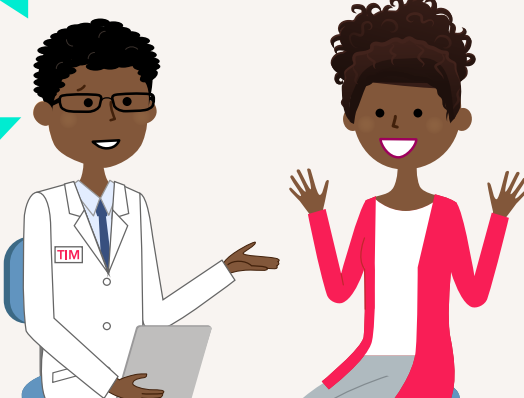
At follow up there should be:

- ✓ Significant improvement or resolution of symptoms
- ✗ If not → refer to MD
- ✓ No significant side effects (can discuss management options)
- ✓ No worsening symptoms
- ✗ If so → refer to MD

I know we have gone over a lot of information today, Abby. Do you have any other questions for me?

I do not. Thank you for your help, Tim!

My pleasure. I hope you start to feel better very soon! Please come see me again if any of these symptoms return in the future.



And do not forget to document the encounter!

References:

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