

## Uncomplicated UTI in Women: What a Pain! - Frankly Speaking EP 74

### Transcript Details

This is a transcript of an episode from the podcast series "Frankly Speaking" accessible at Pri-Med.com. Additional media formats for this podcast are available by visiting:

<http://www.pri-med.com/online-education/Podcast/UTI-frankly-speaking-ep-74>

### Dr. Frank Domino:

Heather is a 23-year-old woman who presents today with the complaints of pain with urination. She admits to having frequency and urgency starting just yesterday. She wonders whether this is a UTI as her friends have suggested. She has never had a UTI before and never wants one again. She states it's very uncomfortable when she has to go to the bathroom. She's tried increasing her fluids, and one friend suggested drinking cranberry juice, but symptoms have not improved. She is hoping to get better quickly. Hi, this is Frank Domino, family physician and professor at the University of Massachusetts Medical School. And joining me today is Dr. Jill Terrien, Associate Professor and Director of the Nurse Practitioner Program at the University of Massachusetts Medical School, Graduate School of Nursing. Hi, Jill.

### Jill Terrien:

Hi, Frank.

### Dr. Domino:

Thanks for coming to talk today about UTIs. So, Heather sounds like she's in a bit of a fix. What new data can we offer her in the way of treatment?

**Jill Terrien:**

So Frank, we're gonna look today at a recent study that came out that was actually done... It was multi-national, and it was an open-label randomized clinical trial, and it looked at two agents that we commonly use in the United States, fosfomycin and nitrofurantoin. And it was a trial that actually accrued about 500 women, 50:50 in each arm, and they were much like Heather. They were healthy. They had uncomplicated urinary tract infection symptoms, which Heather is describing. Of course, we would be asking her a few more questions. And what they did is they either randomized them to one treatment, which was nitrofurantoin, 100 milligrams three times a day for five days, and the other arm was fosfomycin, three grams, it was a single dose. Then what they did is they were looking at two outcomes. The primary outcome was that they had a clinical response in the 28 days if they completed all their therapy. They looked for failure, meaning that they didn't have resolution in their symptoms, maybe had to switch to another agent. Or they also indeterminant. They had persistent symptoms, or they possibly might have been lost to follow-up. They also had a secondary outcome, and that was looking at the bacteria logic response and any incidents of adverse events from the two drugs they were looking at.

So what ended up happening is that in the end, they checked urine cultures at 14 days after the start of therapy and 28 days after therapy. And what they found was in the nitrofurantoin arm that it was superior, it was significant, than the fosfomycin arm. But there's a couple of things I want to caution about, is that the nitrofurantoin dose was 100 milligrams three times a day, and it was for five days. Whereas here in the US, we do nitrofurantoin pretty much 100 milligrams, whereas the standard IDSA guidelines in the US are 100 milligrams twice a day of the short-acting nitrofurantoin four or five days. There's one other thing I want to also add about this, is they think that there may have been a little

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bit of bias introduced into the study because you have... It was not blinded. So everybody... The patients were taking this regimen that was multi times a day for five days, where the other arm was just taking one single dose, and that might have introduced bias.

**Dr. Domino:**

Okay. So that is very interesting that using this unique dose of this commonly used, very inexpensive medicine was superior to something that was considerably stronger, but maybe a bit more convenient. When you approach UTIs, do you see people and do you treat them over the phone, or how do you decide who gets what, or who's complicated and who isn't?

**Jill Terrien:**

That was a lot of questions all at once, Frank. So let me tease them out. So, when I see a patient like Heather, which is very common in my practice, I'm looking for what are the symptoms. So uncomplicated, she's got painful urination, she might have some super-pubic tenderness, and she's got some frequency. What she should not have is flank pain, a fever over 100, and other symptoms that would say she's really much sicker than an uncomplicated UTI, or maybe it's something else. The other thing, who I would consider on the complicated side of UTIs in women, would be somebody that might have a structural abnormality or have had a recent procedure done in the urological system, possibly a diabetes history, and then always looking at people under the age of 18, and then your older population, which you can define how you like. It's usually 65 and older, typically.

**Dr. Domino:**

Okay. So you've helped us figure out that a treatment regimen of nitrofurantoin, 100 milligrams three times a day for five days is superior to this large dose of the fosfomycin. What about some of the older agents we used to use, ciprofloxacin or other

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fluoroquinolones. Any thoughts there?

**Jill Terrien:**

Oh, absolutely, so in preparing for this, I've looked at a couple of different evidence-based guidelines, one being the IDSA, and the other being a trial done by... A systematic review and collection of data by Gregorian. And what was found is that what they recommended in the end was, basically nitrofurantoin, trimethoprim, or fosfomycin are probably your top agents. You could pick one of the above in an uncomplicated UTI situation. Nitrofurantoin has minimal resistance. That's what makes it very popular. The Trimethoprim does have... They recommend not using that when you have a greater than 20 percent resistance in your area, and we maybe have a minute to talk about antibiograms at the end. And fosfomycin, another great choice, but where it is available. Sometimes it's not readily available. So that's one thing to consider. The other thing I want to mention that comes into play with this study is what kinda side effect profile, and there's minimal GI symptoms that went along with both, with all of these drugs. The last thing I'll say is... You asked about fluoroquinolones, and I think there was a time when we were very quick to use a fluoroquinolone in an uncomplicated UTI. And what we know now is that we reserve these for more complicated UTIs, and we also, with more complicated, we reserve them for more complicated UTIs, or if it has any area of resistance, or if the patient cannot tolerate the other agents we talked about.

**Dr. Domino:**

Okay, one quick question. You mentioned trimethoprim. Do you mean to use it alone or with sulfamethoxazole?

**Jill Terrien:**

With sulfamethoxazole.

**Dr. Domino:**

Okay, and that's typically dosed twice a day for three days. Now, you also mentioned resistance patterns. How would I find out what my local resistance patterns are?

**Jill Terrien:**

So interesting, I know that we're here in Massachusetts, but our listeners could be all around the globe. It's usually... So what we do here is we can go onto our state government website, and we can plug in antibiogram. It comes up with a Google map that has a little dot, and you can move the dot, and it gives you a 50 mile radius of the pathogens in your area that have resistance in it. It numbers them, so VRE, I saw is, in our area, 9%, so...

**Dr. Domino:**

Wow.

**Jill Terrien:**

Yes. And then MRSA was 28%. They have pie charts, and they give you as much information as you really want to know. But another thing to do is you could call your local health department, you could call the local largest hospital in the area near you, because these are all data that have to be kept and reported.

**Dr. Domino:**

Well, that's great. Well, Jill, thank you very much. I'll consider changing my dose of nitrofurantoin again and be a little bit less aggressive with fluoroquinolones. Any final thoughts about STIs and that sort of thing?

**Jill Terrien:**

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Sure, and I just want to kinda bring it back to our patient, Heather. She's 23. I'd want to know if I'm gonna be treating her over the phone, which, actually, the guidelines talk about that, that it's very appropriate in an uncomplicated UTI, that you could treat a patient over the phone. But things you want to consider, is Heather sexually active? Is she using protection, a barrier method? Even if she's on the pill to prevent pregnancy, is she using a barrier method? Does she have a single partner? Does she have a new relationship? So these are the things you want to know. The other thing is at age 23, we want to be able to provide her with some anticipatory guidance. She asked an interesting question. She never wants to have one of these UTIs again. So here we are. This is a chance for education, and this can be something that can life-long for her. So we don't want her to have this again, so what can she do? Make sure she has adequate fluids. She can void before and after intercourse. Then she's got the cranberry juice that she'd really like to have cranberry juice rather than an antibiotic. The bottom line is there haven't been enough studies done to say whether there is usefulness in using cranberry juice alone to treat an uncomplicated UTI. So if it made her feel better, absolutely, you could have her take. It makes the urine a little more acid and maybe can decrease her symptoms, but we also have other agents that we can give her immediate relief.

**Dr. Domino:**

Well, Jill, thanks so much for bringing Heather's case to us, and this new approach toward treating uncomplicated UTIs.

**Jill Terrien:**

Thank you, Frank.

**Dr. Domino:**

Practice pointer, consider not using a fluoroquinolone, and using nitrofurantoin in the

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treatment of uncomplicated urinary tract infections. Join us next time when we discuss using tai chi to treat fibromyalgia, and visit us at [PriMed.com](http://PriMed.com) to stay current on many primary care topics.