TMP-SMX Resistance in UTIs 'May Be Leveling Off'

BY ELIZABETH MECHCATIE
Senior Writer

WASHINGTON — The prevalence of urinary tract infections in women resistant to standard treatment has been increasing, but there are indications that the increase has begun to level off, Patricia D. Brown, M.D., said at an update on sexually transmitted infections.

Emerging uropathogenic *Escherichia coli* antimicrobial resistance—particularly to the front-line, first-choice treatment of urinary tract infections (UTIs), trimethoprim-sulfamethoxazole (TMP-SMX)—has been documented worldwide. However, much of the data are based on passive surveillance, which can overestimate prevalence, because women with acute, uncomplicated UTIs often do not have cultures performed, so these cases are not reported, said Dr. Brown of Wayne State University, Detroit.

Women who do have a culture have complicated disease and fail treatment, leading to overestimates of true prevalence, she added. Still, passive surveillance can provide information on trends.

In the United States, active surveillance has been conducted in specific geographic areas, where the true prevalence may not reflect that of other geographic areas, Dr. Brown said at the meeting, sponsored by Ob.Gyn. News, Family Practice News, and Boston University.

Recent studies indicate that TMP-SMX resistance "may be leveling off" after peaking at about 25%, which is probably because of the reduced use of this treatment, she said. But as the use of TMP-SMX for UTIs has decreased, resistance to other antimicrobial agents has been increasing.

In 890 isolates from women with UTIs in the United States who were a part of the North American Urinary Tract Infection Collaborative Alliance (NAUTICA) study, the prevalence of TMP-SMX resistance was about 23%. Resistance to ampicillin was 38%, and resistance to levofloxacin was nearly 7%.

As the use of TMP-SMX has dropped, the use of fluoroquinolones has increased, Dr. Brown said, noting that rates of resistance to β-lactams such as ampicillin have been high for some time. In the NAUTICA study, resistance to nitrofurantoin was only 1.8%, which she said was "remarkable," considering that it has been available for about 50 years. But that rate has probably remained so low because the agent has several mechanisms of action and is indicated only for cystitis, she noted.

There are several clinical implications of these resistance trends: In treatment studies of pyelonephritis, antimicrobial resistance has clearly been shown to increase the risks of both clinical and microbiologic failure, she said. She cited a retrospective cohort study of women with acute uncomplicated cystitis, in which the risk of clinical failure was 45.4%, and a prospective study in Israel of empiric TMP-SMX in an area where the prevalence of resistance was high, in which the risk of clinical failure was 46%.

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Identifying risk factors for resistance can help guide antibiotic choice, she said, referring to the difficulty facing clinicians, who usually do not have access to resistance trends and who likely will be given an overestimate of resistance if they call their local microbiology lab.

Results of retrospective case-control studies have identified potential risk factors for infection with a uropathogen resistant to TMP-SMX. Two risk factors found in every such study include recent antibiotic use and recent hospitalization, she said. Recent travel to underdeveloped countries has been identified as an independent risk factor in several studies.

The standard treatment for uncomplicated cystitis is 3 days of double-strength formulations of TMP-SMX twice a day. Avoid empiric treatment with TMP-SMX in patients who have recently been hospitalized or have taken antibiotics in the previous 3 months, she said.

Alternative treatments for those with risk factors for resistance are a 7-day course of nitrofurantoin or a 3-day course of a fluoroquinolone. The major drawback of the

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Survey: Prevalence of Fecal Incontinence Is 7%

BY SHERRY BOSCHERT
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RANCHO MIRAGE, CALIF. — The prevalence of fecal incontinence ranged from 3% of women in their 30s and 40s to nearly 15% of women in their 80s and 90s in the first large epidemiologic study of fecal incontinence among women living in a U.S. community.

Overall, more than 7% of the 3,536 women who returned mailed surveys reported fecal incontinence, defined as accidental loss of stool at least monthly. Of those with fecal incontinence, 47% said they used pads for sanitary protection, and 53% said the problem caused them to alter their lifestyle, Jennifer Melville, M.D., and her associates reported in a poster presentation at the annual meeting of the Society of Gynecologic Surgeons.

"Fecal incontinence is very prevalent and causes significant quality-of-life impacts," said Dr. Melville of the University Washington, Seattle, during an oral presentation in which she discussed the findings at the meeting. Physicians can assist women by helping to manage the problem, she added.

The responses made up 64% of 6,000 surveys mailed to women aged 30-90 years who were enrolled in a nonprofit HMO in Washington state, GroupHealth Cooperative. The surveys asked specifically about fecal incontinence, not anal incontinence, which includes flatus. Of the women with fecal incontinence, 37% said they had daily or weekly episodes of incontinence. They were incontinent of liquid stool in 47% of cases, solid stool in 23% of cases, and both liquid and solid in 30% of cases.

An analysis of the HMO's automated data on the respondents showed that the women with fecal incontinence were twice as likely to have moderate medical illness and nearly three times as likely to have high-level comorbidity when compared with continent women.

Moreover, women with fecal incontinence were twice as likely to have urinary incontinence and three times as likely to have major depressive disorder as were continent women.

A history of operative vaginal delivery raised the risk for fecal incontinence 58%.

Women with fecal incontinence were more likely to report significant functional impairments, measured in the survey using the World Health Organization Disability Assessment Schedule II. The mean scores on this measure were 24 for women with fecal incontinence and 11 for continent women. The scores for incontinent women are comparable to scores for people with disabling medical conditions like chronic back pain or ankylosing spondylitis, Dr. Melville said. ■

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former is that a full-week course is necessary. As for the fluoroquinolones, ciprofloxacin is available in generic formulations, so it is less expensive. The Food and Drug Administration has approved gatifloxacin as a single-dose treatment for uncomplicated cystitis. One fluoroquinolone that should not be used for UTI is moxifloxacin, which is indicated for respiratory infections, because treatment results in low levels of the drug in the urinary tract.

A single dose of fosfomycin is another alternative, but this is considered a second-line treatment because the efficacy is not that high and it is expensive. One benefit, however, is that resistance to this agent appears to be low, Dr. Brown said.

Short-course treatment is not appropriate for complicated cystitis, which should be treated with a 7-day course of therapy, she said. Avoid empiric TMP-SMX treatment in patients who have recently been treated with antibiotics or have recently been hospitalized, as you would for uncomplicated cystitis. Culture all patients, and adjust treatment based on susceptibility data, she said.

As many as 25% of women with acute cystitis can develop frequent, recurrent UTIs, which are reinfections, not relapses. (Fewer than 5% of these women have a correctable structural or functional abnormality of the urinary tract.) Management strategies include daily or postcoital prophylaxis and self-start therapy for women concerned about developing a UTI when they are away from home, she added.

Contraceptive methods should be evaluated, Dr. Brown said. She also considers prescribing topical estrogen for postmenopausal women who have recurrent UTIs. ■