

LETTERS TO THE EDITOR

COST-UTILITY ANALYSIS FOR UTIs

To the Editor:

The excellent article by Drs Barry, Ebell, and Hickner¹ regarding empiric therapy of suspected UTIs in women concluded with a mention of future work on "the cost-effectiveness of approaches that do not involve an office visit, such as empiric therapy by telephone or therapy based on a strategy where patients drop off a urine specimen."

In the Department of Primary Care at Kaiser Permanente in San Diego, we have been utilizing such an approach since 1992. Approximately 11,000 women each year present with an uncomplicated UTI that is managed by nurses using a telephone protocol. We currently follow a "culture-and-treat" strategy, with the patient instructed to drop off a specimen for culture before beginning her antibiotics. With a culture in our laboratory costing \$6, nurses' phone time costing \$2, and a 3-day course of trimethoprim-sulfamethoxazole (TMP-SMX) costing \$8, the total cost per patient is around \$16 (\$17 for a 7-day course).

We use cultures to help guide treatment rather than to confirm a diagnosis of bacterial UTI. Approximately two thirds of cultures will be positive,² and most of the remaining one third are positive at lower levels not routinely measured, ie, 100 CFU/mL or lower.³ Multiple lines of evidence support "low level" coliforms as the cause of the urethral syndrome.³

A review of patient charts in a pilot study here in 1992 showed that it was

common for patients with recurrent UTIs to present each time with the same typical clinical symptoms, but yet have cultures ranging from negative to multiple organisms, to positive at 1000 or 100,000 CFU/mL (unpublished data). The sensitivity of the quantitative urine culture may be affected by several factors, including level of the infection, hydration status of the patient, acidification of the urine, and collection method.⁴

The main value of the culture is in managing the patient with a resistant organism who fails to respond to empiric treatment. Further treatment is based on fact rather than a second "best guess." Should that patient develop a significant pyelonephritis, the initial culture is invaluable. In our practice, resistant organisms are common. In the pilot study mentioned above, 11% of organisms cultured were resistant to the antibiotic chosen. Currently 27% of *Escherichia coli* in our laboratory is resistant to TMP-SMX, although this figure may be lower in the population discussed here.

Patient satisfaction surveys of women managed in this fashion have been high. In the pilot study mentioned above, 94% preferred this approach to an office visit.

Future work here will focus on best antibiotic choice (especially in view of the increasing resistance of *E coli* to TMP-SMX), best length of treatment in different age groups, and the efficacy of study organisms at counts <1000 CFU/mL.

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VENTING FOR POST-VASECTOMY ORCHITIS

To the Editor:

One complication after vasectomy is obstructive orchitis. This seems to be more likely when the testicular end of the vas is ligated or sealed with endovasal cautery or a hemoclip.¹ This complication has resulted in some recommending leaving the testicular end of the vas open.^{2,3} The following case report describes a case of unilateral obstructive orchitis that was resistant to conventional treatment but it seemed to respond to a venting procedure.

The patient was a healthy 32-year-old man, married with two children. After consultation that included a normal physical examination and informed consent, he underwent a no-scalpel vasectomy procedure.⁴ The conventional method was a paravasal block, and a central scrotal puncture was used to isolate the vas. A section of the vas, approximately 5 mm, was removed, and both ends underwent endovasal cautery with fascial interposition. The procedure was uncomplicated.

On telephone follow-up the next day, the patient was doing well and experiencing the usual amount of discomfort. On the second postoperative day, he was experiencing

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increasing severe left-sided testicular pain without fever or chills. On day 3, examination showed the central puncture was healing well, there was no lymphadenopathy and he was afebrile. Examination of the right testicle and vas structures revealed no abnormality or unusual tenderness. The left testicle and epididymis were exquisitely tender and the vas seemed dilated. At that time he was treated with oral nonsteroidal anti-inflammatories, acetaminophen with codeine, scrotal support, and ice packs. Over the next 48 hours, no improvement was experienced nor was there fever or chills. A white count and differential were within normal limits and the physical examination on day 6 was unchanged. At that time, the decision was made to change him from nonsteroidal anti-inflammatory agents to oral steroids, and he was placed on prednisone 30 mg/d.⁵

Over the next 48 hours, his condition failed to improve and he continued to experience severe pain. On day 11, when examined again, there was no change and the vas still appeared to be dilated. The assessment at that time was that he had severe post-vasectomy orchitis because the vas on the left was completely sealed. The pain was due to a combination of inflammation and obstruction of the

vas. Because of the severity of the symptoms and the mechanism appearing to be obstruction of the vas, venting the obstructed vas was discussed with the patient and his wife. He opted to proceed with the procedure.

A paravasal block was put in place with 1% xylocaine mixed 0.25% marcaine, and the distal end of the left vas was isolated under the skin. The skin was then entered with a curved sharp hemostat. On entering the vas, a small amount of clear fluid was visible. Swabs were taken for a culture sensitivity and chlamydia isolation. All of these would subsequently prove to be negative. After the local anesthetic wore off, his pain returned but then subsided substantially over the next 48 hours.

It is possible that the venting may have alleviated the obstruction or that the obstruction may have resolved spontaneously. The procedure, however, proved easy to perform and may be useful in resistant cases of post-vasectomy obstructive orchitis. This case may support the more widespread use of not occluding the testicular end of the vas.

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CORRECTION

Low MCV Anemia

A correction on a Tips from Practice on low MCV anemia (*J Fam Pract* 1996; 43:307) was published in the February 1997 issue of the *Journal* (page 214). This correction was issued in response to a number of letters commenting on the error. The listing of the correction in the Table of Contents was inadvertently dropped and readers therefore missed seeing it. The Publisher regrets the error.