

FLUCONAZOLE THERAPY FOR CANDIDURIA

To the Editor:

Asymptomatic candiduria is a common clinical occurrence among hospitalized patients. Management algorithms have been proposed but precise treatment criteria remain poorly defined.^{1,2} Fluconazole, an imidazole antifungal agent useful in the treatment of candidiasis and other systemic mycoses, has become widely used and overused in the treatment of asymptomatic candiduria, yet precise indications for its use, as well as details of dosage, duration, and posttreatment follow-up, have not been clearly defined.

The medical records of 100 patients hospitalized at our university hospital with funguria were retrospectively reviewed to determine the type and appropriateness of antifungal therapy. Variables analyzed included the presence of pyuria, risk factors for candiduria, and antifungal treatment. Antifungal therapy was considered unnecessary if pyuria was not present and if the patient did not have underlying urinary obstruction (mechanical or functional) or a foreign body, was not neutropenic or otherwise severely immunosuppressed, and was not critically ill.

Antifungal regimens including fluconazole (41 patients: 19 IV, 18 po, 4 IV + po), amphotericin B (14 patients: 9 by bladder infusion, 5 IV), or both drugs (18 patients); 27 patients were untreated. Pyuria was present in 70% of patients who were treated for candiduria. Treatment was often unnecessarily (26%) or inconsistently prescribed: variable dosages and lengths of therapy for fluconazole were employed, and urinary tract colonization rather than true infection was commonly treated (30%).

The isolation of *Candida* species from a urine sample may represent contamination, harmless colonization, or potentially serious infection. For the majority of patients with candiduria, especially those with an indwelling bladder catheter, the finding of yeast in the urine represents urinary colonization rather than true infection and can be dealt with by nonpharmacologic interventions, eg, removing the Foley catheter, discontinuing antibiotics, achieving better glycemic

control in diabetic patients, and decreasing doses of immunosuppressives. Ascending infection with *Candida* rarely causes renal infection or disseminated disease in the absence of disturbance in urine flow, and there are no consistent data to document that antifungal therapy prevents the development of invasive disease.³⁻⁵

To avoid overuse, for instances of asymptomatic candiduria without pyuria, we believe that fluconazole therapy should be reserved for patients who are found to have anatomic or mechanical urinary tract abnormalities, or who are neutropenic or otherwise severely immunocompromised and critically ill.⁶ When fluconazole is used for patients with normal renal function, we recommend a dose of 50 mg to 100 mg as a single daily dose given for 5 to 7 days. For patients with associated pyuria or symptomatic infection, a course of 10 to 14 days appears warranted. Drug treatment should be followed by urine culture or urinalysis to determine the effectiveness of antifungal therapy. Additional studies are needed to define the optimal agent, dosage, route, and duration of treatment in the management of candiduria.

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EDITOR'S NOTE: An abstract of the information related above was presented at the 93rd general meeting of the American Society of Microbiology, May 17-20, 1993, in Atlanta, Georgia.

PROSTATE CANCER SCREENING

To the Editor:

The *Journal's* recent article on prostate cancer screening (*Cantor SB, Spann SJ, Volk RJ, et al. Prostate cancer screening: a decision analysis. J Fam Pract* 1995; 41:33-41) questioned the benefit of screening and curative treatment of prostate cancer.

Prostate cancer is the most common cancer in men. Annually, 150,000 men are diagnosed with the disease. Papers based on varying lengths of follow-up have reported a 40% progression rate for untreated prostate cancer, with an additional 38,000 men dying annually from this disease. Treatment of early cancer with surgery or radiation achieves a cure rate in excess of 90%.

Several studies have shown the poor yield of bone scan, computed tomography (CT) scan of the abdomen and pelvis, plain radiograph and CT scan of the chest, cystoscopy, and staging lymph node dissection as workup for prostate cancer in patients with a PSA <10 ng/mL. Other studies have reported the significant (50% to 70%) cost advantage of radiation therapy over radical prostatectomy. Cost for a curative course of radiation therapy for prostate cancer is about \$9,000 per patient.

Patients who would have progressive cancer and are cured receive their money's worth! The rest of the money spent is for the life-saving benefit for about 25,000 to 30,000 men. This costs about \$30,000 for each life saved. About 150,000 men have the peace of mind with their cancer treated and will, in all probability, be cured.

Prostate cancer screening by means of prostate specific antigen or digital rectal examination has no morbidity. The risk of morbidity exists only after the diagnosis is made and treatment is administered. Treatment morbidity has to be weighed against the morbidity of progressive cancer. Given the various treatment alternatives, the comparison of morbidity and cost should be performed for each approach to determine the optimum management. A benign neglect (no screening, no treatment) approach does not appear to be a very intellectual approach to a disease process that kills 88,000 men every year and leads to morbidity in many more.

Administering no treatment would not accomplish \$1400 million in savings. The 150,000 men diagnosed with prostate cancer annually need monitoring of the disease. About 60,000 men will need palliative treatment for progressive cancer: diagnostic radiographs and bone scans, hormones, radiation, surgery, medications, and hospitalization. About 88,000 men will need care for terminal cancer, including management of cancer complications. At a conservative estimate of \$50,000 per person for the final 6 to 12 months of care, the savings are far from realized, not to mention the cost, pain, agony, and suffering of the patient and the family. A middle-of-the-road approach in medical care and cost containment is achievable without "throwing the baby out with the bath water."

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The preceding letter was referred to Drs Cantor, Spann, Volk, Cardenas, and Warren, who respond as follows:

We agree with Dr Lawrence that the problem of prostate cancer has tremendous impact on men's lives and the health care system. However, we disagree with some of his facts. For example, not all men diagnosed with prostate cancer "will, in all probability, be cured." As referenced in our article, prognosis is dependent on stage of the disease. In addition, Lawrence gives little recognition to the strategy of watchful waiting for early prostate tumors. A recently published longitudinal study demonstrated that 65- to 75-year-old men with localized prostate cancer who received little or no treatment had a life expectancy equivalent to that of healthy men of the same age.¹

Lawrence has focused his response on the economic savings that would occur if prostate cancer screening and treatment were to become policy; however, our analysis did not examine monetary costs, and analyzed only the clinical question of screening and treatment. Much of the data that Lawrence cites regarding economic costs and health benefits has been synthesized in an analysis performed by Krahn et al.² This cost-effectiveness analysis showed that the incremental cost-effectiveness of screening 50-year-old men with the digital rectal examination, prostate-specific antigen (PSA) test, and transrectal ultrasound compared with no screening was \$729,000 per life-year gained, an expensive proposition. If quality-of-life factors were included, no screening would be the dominating strategy, as it would both cost less and yield greater health benefits compared with screening.

Our decision-analytic model recognizes the threat of prostate cancer but explicitly incorporates the slow growth of the disease and the morbidity of treatment into the model. Like many decisions in clinical medicine, our conclusions are highly dependent on patient preferences for potential outcomes.³ We conclude that the decision of whether a 50-year-old man undergoes annual prostate cancer screening with digital rectal exam and serum PSA is an individualized decision that should be made by the patient and his physician, taking into account the patient's preferences. We do not agree that all men in this age group should be screened independent of their preferences for the potential outcome states resulting from prostate cancer.

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FPS AND EMERGENCY MEDICINE

To the Editor:

As a diplomate of the American Board of Family Practice (ABFP) and a career emergency physician, I have been actively involved in trying to improve the recognition of family physicians who practice emergency medicine. I was interested in the essay "Training the Complete Physician for Rural America"¹ and the lessons that we can learn from Dr Bomengen.

I agree with the implied need for better training of family physicians practicing in rural areas in emergency care, and the need for the medical community to "resolve issues about the appropriateness of training . . . to provide quality health care with compassion." I wanted to comment on this article and provide some background information in the hope that policymakers will respond to the challenge presented by Bomengen.

There have been some published discussions about family physicians practicing emergency medicine that seem directly relevant to this issue.²⁻⁶ Family physicians provide the majority of emergency care in rural areas and are essential to staffing community and urban emergency departments since there is a shortage of residency-trained emergency physicians. Bomengen describes the problems that many of these physicians face, due to allegations that they are not qualified. These allegations often come from specialists who are trying to protect their own scope of practice. Leaders of a new group, the American Academy of Emergency Medicine (AAEM), have used the media to question the competence of any physician practicing emergency medicine who is not certified by the American Board of Emergency Medicine (ABEM). For example, the Christian Broadcast Network (CBN) aired a program entitled "Emergency Rooms: Hazardous to Your Health," on May 23, 1994; a related news feature was broadcast by *60 Minutes* on November 28, 1993.

Organized emergency medicine has aggressively promoted certification by the ABEM as the "gold standard," even

though more than one half of the work-force in emergency medicine does not have access to this certification process. Some family physicians who practice emergency medicine have been able to qualify for the ABEM certification exam through the practice tract, but this path was closed in 1988. Issues regarding training and certification in emergency care have become the exclusive domain of the ABEM "specialist." This has led to a bias against non-ABEM-certified physicians in public policy, media coverage, and credentialing. For example, on September 8, 1994, an Associated Press article entitled "Many Emergency Rooms Staffed by Doctors with Inferior Training" questioned the qualifications of doctors working in emergency departments, while on the same day, *USA Today* published an article suggesting that emergency room patients would be better off being treated by paramedics.

A family physician who is skilled in emergency care is probably the most "complete physician," since physicians who train specifically in emergency medicine do not usually practice primary care. However, family practice and emergency medicine have many similarities, and cooperative training programs should be developed.⁷ We are the only true generalist specialties, since we see all patients regardless of age or sex. Emergency medicine training has more emphasis on subjects such as trauma and toxicology, but family physicians need to be recognized as competent providers of emergency care. As Bomengen emphasized, we also need to develop a special training path for rural physicians in emergency care. In Canada, family physicians can complete an additional year of emergency medicine training and become certified through a separate pathway.⁸ There are a few family medicine departments in the United States that offer additional training in emergency medicine, but they are not widely recognized. For example, the University of Tennessee in Memphis has a fellowship in rural emergency medicine/family practice that offers an academic credential, but it is not sanctioned by either the ABFP or the ABEM.

The American Academy of Family Physicians Board of Directors has recently adopted a policy on the role of family physicians in emergency medicine,⁹ but Zubialde and McCarthy¹ are correct in pointing out the obstacles hampering the kind of cooperative effort that will be required to address these issues.^{10,11} A special conference should be convened, per-

haps by a charitable foundation with a commitment to health policy. As Bomengen said, "It's time to put medical politics aside and start doing what is best for our patients. Physicians . . . must have the training, qualifications and confidence to meet any situation head on." I hope that the authors and other readers in leadership positions will respond to this essay by pursuing the goals that it describes.

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MINOCYCLINE VS TETRACYCLINE

To the Editor:

The article on "Minocycline-Induced Hyperpigmentation" (Hung PH, Caldwell JB, James WD, *Minocycline-induced hyperpigmentation. J Fam Pract* 1995; 41:183-5) was interesting. It raises

a question in my mind about the widespread use of minocycline in treating acne in teenagers.

Since a growing number of teenagers and middle-aged persons are being treated on a long-term basis with this medication, I wonder if the authors or other practitioners have recommendations about using generic tetracycline rather than minocycline. For patients with either slightly discolored, pale, or "yellowish" dental enamel, should we possibly refocus our choice away from minocycline use? Finally, is this an additional possible complication we need to discuss with our patients who are on long-term minocycline therapy?

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The preceding letter was referred to Dr Hung, who responds as follows:

We appreciate the thoughtful points raised by Dr Shubin and hope to adequately address these important questions. We feel it is preferable to use tetracycline as a first-line drug in the long-term treatment of acne, reserving minocycline for cases resistant to tetracycline. Slightly discolored, pale, or yellowish dental enamel is not a contraindication to long-term therapy with minocycline. However, the development of blue-gray pigmentation after initiation of therapy is sufficient cause for discontinuation of the drug. As permanent hyperpigmentation of the teeth may occur in up to 5.6% of patients, we believe this potential risk should be discussed with the patient if not already addressed prior to initiation of therapy.

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ADVANCED OBSTETRICAL TRAINING FOR FPs

To the Editor:

It was with great interest that I read the essay on advanced obstetrical training for family physicians (Caudle MR, Clapp M, Stockton P, Neutens J. *Advanced obstetrical training for family physicians: the future hope for rural obstetrical care. J Fam Pract* 1995; 41:123-5). The shift away from obstetrics starts in the third year of

medical school. Students are herded through urban hospitals, where it is pounded into them daily by specialists that unless they can deliver all the hallowed institution can, they have no business delivering babies. Many students at my medical school had fewer than five deliveries in a 6-week rotation. As a first-year resident in a major tertiary hospital, I have encountered a very hostile attitude by Ob-Gyn residents and staff toward any family practice resident intending to practice obstetrics.

Having spent 9 months in a rural site in my third year of medical school, I also experienced the demands placed on family physicians who practice obstetrics in rural areas. I came to residency with a mission to learn enough about obstetrics to practice with some degree of confidence in a rural area. I agree with the authors that the reason FP residents choose not to practice obstetrics is poor training! It is time for the FP residency accreditation programs to mandate absolute minimums for the number of deliveries, primary obstetrical patients, and hours of prenatal care that residents must receive. This would allow residents to feel competent in Ob-Gyn and to assist medical students in the selection of residency programs. The current residency selection process is akin to purchasing a used car, i.e., let the buyer beware. Residencies quote the number of deliveries in their hospital, but the actual numbers available to be delivered by residents are less.

Why should residents have to spend yet another year in fellowship to get adequate Ob-Gyn training? The crisis in rural obstetrics is secondary to the substandard training family medicine residents are receiving in our metropolitan teaching areas. This is yet another example of the negative impact the "metrocentric" focus of medical training has had on our rural areas.

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The preceding letter was referred to Drs Caudle, Stockton, and Neutens, who respond as follows:

We appreciate the comments of Dr Faulhaber regarding our essay on "Advanced Obstetrical Training for Family Physicians." Although we agree with him on many points, we continue to believe that an extra year of specialized training is desirable in certain circumstances. For those residents planning to practice in remote rural areas, additional training in

obstetrical procedural skills, such as cesarean sections, and in neonatology and anesthesiology need to be incorporated into a fourth year. Those physicians practicing in urban or rural areas with adequate obstetrical backup can and should be taught routine obstetrical care during the usual 3-year family practice program. Regarding a fourth year of specialized training, we believe this should be taught by a combination of family medicine, general Ob-Gyn, perinatology, and neonatal faculty.

Considering how much money our society spends on medical education, tertiary medical centers incapable or unwilling to train family practitioners should examine their priorities. It is time to end the hostile attitude frequently encountered by young doctors such as Dr Faulhaber during his training. Regarding residency program "quotas" of deliveries, it is our understanding that there is under consideration a plan to set a minimum number of deliveries per resident for family practice programs to remain accredited. Although such minimum requirements often serve as a two-edged sword, it is hoped that such requirements would empower residencies currently experiencing difficulties with the needed leverage to improve their training programs. It is debatable whether a fourth year of advanced procedural training should be required of all family practice residents. It is clear, however, that we need more cooperation among various specialties in the establishment of criteria that will standardize advanced obstetrical training, so that medical students can select a residency that provides the knowledge and experience they need and desire.

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FROM THE LAND OF MILK AND HONEY

To the Editor:

As a reminder that not every patient with galactorrhea requires magnetic resonance imaging or dopaminergic therapy and as a contribution for the serious collector of unusual causes of galactorrhea, I offer the following capsule case report.

A 34-year-old woman of one of Israel's many subcultures was seen in consultation for nonspontaneous galactorrhea. She was otherwise well and her menses were regular. It was apparent after the first few questions that the galactorrhea was ascribable to breast stimulation.

During the previous unusually dry and prolonged summer months, her nipples had become "terribly" dry and intensely itchy. Only twice-daily hot showers and frequent vigorous rubbing of the nipples relieved the itching. She was not an atopic individual, and on examination, her nipples appeared normal; a faint difficult-to-identify but pleasant odor was noted.

Further questioning disclosed that because her subculture forbade the use of anything synthetic, including scented soaps or perfumes, she habitually sweetened her body, including her nipples, with honey.

I restrained myself from asking a series of questions that immediately suggested themselves, advised her to stop the hot showers, and urged her to switch from honey to something equally tasty and sweet but less sticky.

Whether the milk-and-honey phenomenon is limited to the Holy Land or is found elsewhere is a question for an anthropologist. Meanwhile, physicians may want to add a query about sweetened nipples when evaluating patients with unexplained galactorrhea.

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BUILDING A PRACTICE

To the Editor:

I would like to suggest the addition of several items to Dr William Crump's excellent list of ways to build a young practice:

1. Become a school physician
2. Supervise school nurse practitioners
3. Volunteer to do sports physicals
4. Provide free or reduced-cost immunizations
5. Find pediatricians who will refer all but the most difficult cases to your ongoing care.

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