

Forecast for osteopathic medical education programs in the for-profit hospital environs

To the Editor:

As the healthcare system in the United States continues to change, more hospitals are merging into for-profit hospital systems. This trend is continuing despite recent federal investigation into some for-profit systems for questionable billing practices, among other concerns. With the impending entry of the first for-profit hospital system into the state of Michigan, questions arise concerning the status of osteopathic primary care education programs for interns and residents in the for-profit hospital environment.

In searching the literature, I found no articles on this topic. Therefore, I embarked on personal discussions with directors of medical education, residents, hospital chief executive officers, and other hospital personnel to see how they're faring. I found primarily positive comments. Although some persons were unhappy about some of the corporate decisions, overall, most persons I spoke with expressed overwhelming approval.

Only one transaction in which a for-profit system bought a college osteopathic hospital elicited repeatedly negative remarks. Yet, as I gathered more information about this particular transaction, I've come to think that this negativity is really based on a series of misinterpretations, operational slip ups, and the failure to share complete information with all faculty and students. In this instance, things were done that caused confusion, but I do not think this is the usual scenario. In most outright purchases or even partnerships, personnel in the hospitals and colleges, as well as the physicians and residents, were pleased with the new arrangement; they viewed it as having a positive effect.

If anything, I get the feeling that for-profit hospital systems look favorably on osteopathic primary care medical education and its graduates, as they see us as good primary care providers. Primary care providers are, after all, a very important part of for-profit and not-for-profit hospitals.

Not specific to osteopathic medical education is the issue of cost efficiency with accountability, along with the ability to document good educational standards and outcomes. Accountability ranks important in for-profit hospital systems. Healthcare personnel must be ready to defend their budgets and programs. The days of small programs with one or two residents are probably over as are poor—or mediocre—internships and residencies.

Osteopathic medical training programs must be prepared to be judged against a national standard, including being able to compete with those Accreditation Council for Graduate Medical Education (ACGME)-approved programs that train osteopathic physicians. Establishing medical programs as bench marks, as well as setting standards for the quality of patient care and cost efficiency, is in progress.

The bottom line plays an essential part in almost all for-profit hospitals. Nonetheless, for-profit hospital systems support primary care programs. Specialty training programs are supported—if they can be adequately defended, are seen as needed in the hospital system, and are of high educational quality.

Osteopathic medical education should not be afraid of for-profit hospital systems. Like allopathic programs, osteopathic medical education programs will survive if they are quality programs that can justify their existence and show that they benefit the hospital system in ways that go beyond the bottom line and encompass the total operations of the system.

For-profit hospitals are a threat to the status quo. I do not fear them, however; rather, I see them as a breath of fresh air in a system set in its ways that fears *real* competition. Although a hospital's first priority is providing good patient care, the hospital is a business and should be run as such. Medical education is a part of that business and should be run as such. Likewise, universities and colleges of osteopathic medicine are businesses and should be run accordingly. Being accountable and

able to justify a program's existence are reasonable expectations and are ones that we should be ready to meet.

Gordon C. Spink, DO, PhD

Director, Medical Education
Ingham Regional Medical Center
Lansing, Mich

Examining quality improvement vs cost containment

To the Editor:

I was very interested in the article "Evaluation of a critical pathway for stroke" (JAOA 1997;97:269-272,275-276) by Gary Ross, DO, and colleagues. The authors reported their experience in creating a multidisciplinary task force to develop, implement, and monitor a critical pathway for the management of stroke patients admitted to the hospital. Because this hospital length of stay for this diagnosis was longer than that reported in the literature, stroke became a principal target for development of the critical pathway quality improvement project. After implementation of the pathway, a reduction occurred in the length of stay, and improvement was noted on a variety of performance measures.

I have no doubt that the reduction in variation achieved by implementing the critical pathway improved institutional efficiency and had potential to improve quality and patient outcomes. However, I question the original intent of this endeavor after reading the article. Was the team created to improve real or perceived problems with quality of care, or was the primary goal to reduce the length of stay? With the exception of length of stay, no other measures of patient outcome were reported. As Chassin¹ points out, "Much

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ADVERSE REACTIONS

There have been rare cases of reversible idiosyncratic hepatitis reported among patients taking SPORANOX® (itraconazole) Capsules. SPORANOX® has been associated with rare cases of serious hepatotoxicity, including fatalities, primarily in patients with serious underlying medical conditions taking multiple medications. The causal association with SPORANOX® is uncertain. If clinical signs and symptoms develop that are consistent with liver disease and may be attributable to itraconazole, SPORANOX® should be discontinued. (See WARNINGS.)

ONYCHOMYCOSIS OF THE TOENAIL (Continuous dosing regimen of 200 mg q.d. for 12 consecutive weeks):

Adverse events in the following table led to either temporary or permanent discontinuation of treatment:

Body System/Adverse Event	Incidence (%) (n=112)
Elevated liver enzymes (>2x normal range)	4%
Gastrointestinal disorders	4%
Rash	3%
Hypertension	2%
Orthostatic hypotension	1%
Headache	1%
Malaise	1%
Myalgia	1%
Vasculitis	1%
Vertigo	1%

Adverse events reported with an incidence of >1% in patients given SPORANOX® (200 mg q.d. for 12 consecutive weeks; n=112) in clinical trials of toenail onychomycosis were: headache (11; 10%), rhinitis (10; 9%), upper respiratory tract infection (9; 8%), sinusitis (8; 7%), injury (8; 7%), diarrhea (5; 4%), dyspepsia (5; 4%), flatulence (5; 4%), abdominal pain (4; 4%), dizziness (4; 4%), rash (4; 4%), nausea (3; 3%), cystitis (3; 3%), urinary tract infection (3; 3%), liver function abnormality (3; 3%), myalgia (3; 3%), appetite increased (2; 2%), constipation (2; 2%), gastritis (2; 2%), gastroenteritis (2; 2%), pharyngitis (2; 2%), asthenia (2; 2%), fever (2; 2%), pain (2; 2%), tremor (2; 2%), herpes zoster (2; 2%) and abnormal dreaming (2; 2%).

ONYCHOMYCOSIS OF THE FINGERNAIL (Pulse regimen consisting of two one-week treatment periods with 200 mg b.i.d. separated by a 3-week period without SPORANOX®):

Adverse events in the following table led to either temporary or permanent discontinuation of treatment:

Body System/Adverse Event	Incidence (%) (n=37)
Rash/pruritus	3%
Hypertriglyceridemia	3%

Adverse events reported with an incidence of >1% in patients given SPORANOX® (two one-week treatment periods with 200 mg b.i.d., separated by a 3-week period without SPORANOX®; n=37) in the clinical trial of fingernail onychomycosis were: headache (3; 8%), pruritus (2; 5%), nausea (2; 5%), rhinitis (2; 5%), rash (1; 3%), bursitis (1; 3%), anxiety (1; 3%), depression (1; 3%), constipation (1; 3%), abdominal pain (1; 3%), dyspepsia (1; 3%), ulcerative stomatitis (1; 3%), gingivitis (1; 3%), hypertriglyceridemia (1; 3%), sinusitis (1; 3%), fatigue (1; 3%), malaise (1; 3%), pain (1; 3%) and injury (1; 3%).

SYSTEMIC FUNGAL INFECTIONS

Adverse experience data in the following table are derived from 602 patients treated for systemic fungal disease in U.S. clinical trials, who were immunocompromised or receiving multiple concomitant medications. Of these patients, treatment was discontinued in 10.5% of patients due to adverse events. The median duration before discontinuation of therapy was 81 days, with a range of 2-776 days. The table lists adverse events reported by at least 1% of patients.

Body System/Adverse Event (Incidence ≥ 1%)	Incidence (%)
Gastrointestinal disorders	
Nausea	10.6
Vomiting	5.1
Diarrhea	3.3
Abdominal pain	1.5
Anorexia	1.2
Body as a whole	
Edema	3.5
Fatigue	2.8
Fever	2.5
Malaise	1.2
Skin and appendages disorders	
Rash	8.6*
Pruritus	2.5
Central/peripheral nervous system	
Headache	3.8
Dizziness	1.7
Psychiatric disorders	
Libido decreased	1.2
Somnolence	1.2
Cardiovascular disorders	
Hypertension	3.2
Metabolic and nutritional disorders	
Hypokalemia	2.0
Urinary system disorders	
Albuminuria	1.2
Liver and biliary system disorders	
Hepatic function abnormal	2.7
Reproductive disorders, male	
Impotence	1.2

*Rash tends to occur more frequently in immunocompromised patients receiving immunosuppressive medications.

Adverse events infrequently reported in all studies included: constipation, gastritis, depression, insomnia, tinnitus, menstrual disorder, adrenal insufficiency, gynecomastia and male breast pain.

In worldwide postmarketing experience with SPORANOX® Capsules, allergic reactions including rash, pruritus, urticaria, angioedema and in rare instances, anaphylaxis and Stevens-Johnson syndrome, have been reported. Marketing experiences have also included reports of elevated liver enzymes and rare hepatitis. Although the causal association with SPORANOX® is uncertain, rare alopecia, hypertriglyceridemia, neutropenia and isolated cases of neuropathy have also been reported.

OVERDOSAGE

Itraconazole is not removed by dialysis. In the event of accidental overdosage, supportive measures, including gastric lavage with sodium bicarbonate, should be employed.

There are limited data on the outcomes of patients ingesting high doses of itraconazole. In patients taking either 1000 mg of SPORANOX® (itraconazole) Oral Solution or up to 3000 mg of SPORANOX® Capsules, the adverse event profile was similar to that observed at recommended doses.

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Rev. February 1997, August 1997
Distributed by:
JANSSEN PHARMACEUTICA INC.
Titusville, NJ 08560

7501613
U.S. Patent No. 4,267,179
Capsule contents manufactured by:
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of what passes for quality improvement can justifiably be viewed as thinly veiled cost containment or marketing."

In the absence of measures of patient outcomes, improvements in processes of care that have been clearly linked by medical evidence to improved patient outcomes can be acceptable measures of quality.² Although a number of measures were reported in the article to suggest improvement of quality of care, most reflected documentation issues or were based on consensus guidelines without clear evidentiary links to improved patient outcomes. For example, the authors demonstrated increased utilization of carotid ultrasonography within 24 hours of admission and second computed tomography scan of the brain during the admission as a result of the pathway. I am not aware of evidence-based guidelines or randomized controlled trials that document a direct improvement in patient outcomes with the routine performance of either of these tests on patients with ischemic stroke. Therefore, I question whether these performance measures reflect improved quality of care. Either test may be indicated on a case-by-case basis,³ but as with many diagnostic tests, disagreement exists among expert physicians with regard to indications. Both tests increase hospital utilization and costs.

The authors reported that improving patient care systems in the hospital was easier than prompting changes in physician behavior. In a recent lecture, Donabedian⁴ reminded us that the indispensable first step in the process of quality assurance is a genuine conviction that performance needs to be improved. "Such conviction must exist in the organization, in the group, and, ultimately, in each individual, insofar as that individual's own performance is concerned."

I think most physicians want to provide good quality care. Given credible evidence that patient outcomes can be improved by implementing guidelines or pathways, physicians are more likely to participate actively in quality initiatives. Without that clear evidence, however, physicians can be justifiably skeptical of those initiatives, particularly when those

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DEAN

College of Osteopathic Medicine and Surgery

The University of Osteopathic Medicine and Health Sciences, Des Moines, Iowa, is seeking application and nominations for the position of Dean for the College of Osteopathic Medicine and Surgery (COMS). Under a new President's leadership, the University is developing an administrative team with a strong emphasis on academic and clinical excellence with attention to student needs.

The Dean of COMS will report directly to the senior academic officer of the University and will also serve as an assistant to the President. Candidates must possess a D.O. degree and medical board certification. In addition, a thorough understanding of primary care is desirable. The successful candidate should possess expertise in medical curriculum development and implementation, demonstrated excellence in clinical training and patient care, and outstanding leadership and communication skills.

The College of Osteopathic Medicine and Surgery is the second oldest and second largest osteopathic college in the nation. By enrollment, the college ranks among the 15 largest medical schools in the United States. Current enrollment is 800, with an alumni body of approximately 5,500. In addition to osteopathic medicine, the University offers degree programs in podiatric medicine, physical therapy, physician assistant and health care administration. Total University enrollment is 1,350.

Nomination, inquiries, and applications with curriculum vitae and the names of four references will be treated confidentially and should be directed to:

Gary Hoff, D.O.

Chairperson, Dean Search Committee
c/o Craig A. Canby, Ph.D.

College of Osteopathic Medicine and Surgery

UNIVERSITY OF OSTEOPATHIC MEDICINE AND HEALTH SCIENCES

3200 Grand Avenue
Des Moines, Iowa 50312-4198
AA/EOE

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promoting the quality improvement effort are perceived to be most interested in reducing the costs of care.

Dale W. Bratzler, DO, MPH

Oklahoma Foundation for Medical Quality
Oklahoma City, Okla

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1. Chassin MR: Quality of health care. Part 3: Improving the quality of health care. *N Engl J Med* 1996;335:1060-1063.
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3. Adams HP, Brott TG, Crowell RM, et al: Guidelines for the management of patients with acute ischemic stroke. A statement for health-care professionals from a special writing group of the Stroke Council, American Heart Association. *Circulation* 1994;90:1588-1601.
4. Donabedian A: The Effectiveness of quality assurance. Presented at the conference "Managing Health Care Quality: Excelling in a Changing Environment"; March 1, 1997, Oklahoma City, Okla.

Response

Your comments are well taken. As mentioned in the article, stroke was chosen as a diagnosis for the development of a critical pathway for two reasons. One, stroke is a high-volume diagnosis and two, a potential cost reduction was apparent. Once the decision was made that stroke would be the diagnosis for the pathway initiative, then patient care became the main focus.

During the development of the pathway, cost was not discussed. We assumed that focused patient care is cost effective and that length of stay is the primary cost determinant for stroke patients. Also, as you mentioned, improvements in processes of care can improve patient outcomes.

You commented that the "measures" chosen in the article may not reflect quality of care. Ongoing "outcomes measurements" take place within the hospital independent of the variance measures set up specifically to monitor pathway utilization.

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tion. Mortality and readmissions are monitored for all diagnoses by the various quality assurance committees. No changes occurred in mortality or readmission statistics, as mentioned in the article.

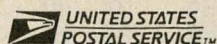
The variances monitored were used as surrogate markers to good patient care as defined by the pathway. The pathway guidelines were based on the current literature and the consensus of expert opinion.

You mentioned that the increased use of ultrasound and computed tomography with regard to patient outcomes has no documentation in the literature. As such, the physicians who developed the pathway guidelines based the decision to include these parameters on their expertise. Our study did not evaluate whether such inclusion was a good decision based on patient outcomes.

The argument for increasing the utilization of carotid ultrasonography was based on the need to identify critical stenosis as soon as possible, thereby, intervening with endarterectomy prior to a future cardiovascular event. During the pathway development phase, a retrospective chart review of stroke patients was performed to see the percentage of patients thought to have carotid disease which would suggest the need for an ultrasound. The results were discussed with the neurologists who agreed that approximately 90% of our patients had indications to undergo carotid ultrasonography. For efficiency, the task force suggested all patients admitted for acute cerebrovascular accident (CVA) should undergo carotid ultrasonography. The standing orders were not included in our article; however, if a carotid ultrasound was performed within 3 months, it is not repeated. Instead, the patient's ultrasound report is placed in his chart.

The scan may not show changes of cerebral infarction for 24 to 48 hours from the time of the ischemia. The first scan was taken primarily to rule out a hemorrhage. The second one was taken to assist in a diagnosis—if the first scan was negative. This second scan was also used to see if there was extension of the stroke. As such, it was used to define a patient with "progression of CVA."

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Statement of Ownership, Management, and Circulation

(Required by 39 USC 3685)

1. Publication Title JAOA—JOURNAL OF THE AMERICAN OSTEOPATHIC ASSN		2. Publication Number 0 0 9 8 _ 6 1 5 1		3. Filing Date 10/01/97
4. Issue Frequency MONTHLY		5. Number of Issues Published Annually 12		6. Annual Subscription Price \$55.00
7. Complete Mailing Address of Known Office of Publication (Not printer) (Street, city, county, state, and ZIP+4) AMERICAN OSTEOPATHIC ASSOCIATION, 142 E ONTARIO ST, CHICAGO, COOK IL 60611-2864				Contact Person SUSAN BAIRD Telephone 312/280-5880
8. Complete Mailing Address of Headquarters or General Business Office of Publisher (Not printer) AMERICAN OSTEOPATHIC ASSOCIATION, 142 E ONTARIO ST, CHICAGO, IL 60611-2864				
9. Full Names and Complete Mailing Addresses of Publisher, Editor, and Managing Editor (Do not leave blank)				
Publisher (Name and complete mailing address) SANDRA WILLIAMSON AMERICAN OSTEOPATHIC ASSOCIATION, 142 E ONTARIO ST, CHICAGO, IL 60611-2864				
Editor (Name and complete mailing address) THOMAS W ALLEN, DO AMERICAN OSTEOPATHIC ASSOCIATION, 142 E ONTARIO ST, CHICAGO, IL 60611-2864				
Managing Editor (Name and complete mailing address) KAREN STIPP AMERICAN OSTEOPATHIC ASSOCIATION, 142 E ONTARIO ST, CHICAGO, IL 60611-2864				
10. Owner (Do not leave blank. If the publication is owned by a corporation, give the name and address of the corporation immediately followed by the names and addresses of all stockholders owning or holding 1 percent or more of the total amount of stock. If not owned by a corporation, give the names and addresses of the individual owners. If owned by a partnership or other unincorporated firm, give its name and address as well as those of each individual owner. If the publication is published by a nonprofit organization, give its name and address.)				
Full Name		Complete Mailing Address		
AMERICAN OSTEOPATHIC ASSOCIATION (A NON PROFIT ORGANIZATION)		142 E ONTARIO ST, CHICAGO, IL 60611-2864		
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12. Tax Status (For completion by nonprofit organizations authorized to mail at special rates) (Check one) The purpose, function, and nonprofit status of this organization and the exempt status for federal income tax purposes: <input checked="" type="checkbox"/> Has Not Changed During Preceding 12 Months <input type="checkbox"/> Has Changed During Preceding 12 Months (Publisher must submit explanation of change with this statement)				
PS Form 3526, September 1995 (See instructions on Reverse)				
13. Publication Title JAOA—JOURNAL OF THE AMERICAN OSTEOPATHIC ASSOC		14. Issue Date for Circulation Data Below SEPTEMBER, 1997		
15. Extent and Nature of Circulation		Average No. Copies Each Issue During Preceding 12 Months		Actual No. Copies of Single Issue Published Nearest to Filing Date
a. Total Number of Copies (Net press run)		30,317		32,200
b. Paid and/or Requested Circulation				
(1) Sales Through Dealers and Carriers, Street Vendors, and Counter Sales (Not mailed)		0		0
(2) Paid or Requested Mail Subscriptions (Include advertiser's proof copies and exchange copies)		15,420		17,850
c. Total Paid and/or Requested Circulation (Sum of 15b(1) and 15b(2))		15,420		17,850
d. Free Distribution by Mail (Samples, complimentary, and other free)		14,439		13,936
e. Free Distribution Outside the Mail (Carriers or other means)		0		0
f. Total Free Distribution (Sum of 15d and 15e)		14,439		14,439
g. Total Distribution (Sum of 15c and 15f)		29,859		31,786
h. Copies not Distributed				
(1) Office Use, Leftovers, Spoiled		458		414
(2) Returns from News Agents		0		0
i. Total (Sum of 15g, 15h(1), and 15h(2))		30,317		32,200
Percent Paid and/or Requested Circulation (15c / 15g x 100)		51.6%		56.2%
16. Publication of Statement of Ownership <input checked="" type="checkbox"/> Publication required. Will be printed in the <u>NOVEMBER, 1997</u> issue of this publication. <input type="checkbox"/> Publication not required.				
17. Signature and Title of Editor, Publisher, Business Manager, or Owner <i>Susan C. Baird</i> <i>Chair</i>				Date 10/01/97
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The following answers/discussions relate to the quiz appearing in the October 1997 issue of JAOA.

1. (c) Briminodine shows an increased selectivity for α_2 -adrenoceptors, and this helps in decreasing its incidence of allergic reaction.
2. (b) Latanoprost causes a darkening of the iris color by increasing the number of melanosomes in hazel or mixed-color irides.
3. (b) Fluconazole causes leukopenia.
4. (d) Decreasing the dose of fluconazole reduces gastrointestinal distress. Rarely does fluconazole need to be discontinued because of gastrointestinal distress. Instead the dose should be decreased.
5. (d) Alcohol use disorders in US elders (>65 years) are predominantly manifested by atypical physical and psychological consequences. The prevalence of alcohol use disorders in the community elders is 3% to 5%, and in the family practice setting, 5% to 33%. Elders are more likely to be adversely affected by alcohol use disorders than younger adults owing to drug interactions, limited reserve in cognitive and physical functioning, and a higher blood alcohol level for the amount consumed due to a smaller volume of distribution. Although the Alcohol Module of the Diagnostic Interview Schedule is often considered the gold standard for diagnosis of alcohol use disorders, many of its criteria may not apply to elders who are often retired, widowed, or separated from other family members. In addition, withdrawal symptoms may

be difficult to assess in elders. Previous studies have shown that physicians diagnose only about 30% of elders with alcohol use disorder.

6. (e) Both the CAGE and the AUDIT may be useful in screening elders for alcohol use disorders. In addition, NIAAA criteria for excessive alcohol consumption in elders may be a useful clue to those with alcohol use disorders.

7. (c) Although transmission of the infectious form of the coccidian or microsporidian agents of intestinal disease can theoretically be transmitted via food, only *Cyclospora* has been reported as having a strong association with this mode of transmission.

8. (d) Although light microscopy coupled with other techniques, such as histologic examination (plastic-embedded sections, et cetera), touch preparations of biopsy materials, and cytospin preparations, will demonstrate the spores of a microsporidian, more refined procedures are required for identification of the species level.

9. (c) The microsporidian is unique in terms of host entry. The polar tubule everts in proximity to the host cell. On contact with the receptive host cell, an entry channel occurs, and the parasite protoplasm enters the cell to initiate the parasitic process. ♦

Appropriate utilization of telemetry beds affects the patients who require their use more than the outcome for the individual stroke patient. Timely referrals to rehabilitation allow patients to begin a functional improvement program that much sooner. It takes the patients off the general medical floors sooner and (theoretically) also decreases their risk for nosocomial infection, aspiration, deep vein thrombosis, and contractures.

All patients' functional status is monitored by healthcare personnel in the Department of Physical Medicine and Rehabilitation. Again, because this monitoring was not directly implemented as a result of the pathway, we did not report on it. The functional improvement measure scores did not change significantly the year before the pathway was implemented compared with the year after the implementation.

I also think that most physicians want to practice good quality care. Information can be relayed to physicians, and we generally adhere to it. The difficulty lies in getting us busy physicians to "hear" the information—and to remember it. Educating physicians requires frequent reminders. With time, change *does* take place. Many physicians still refuse to attend educational meetings; these same physicians' patients have the greatest lengths of stay and their doctors have the poorest utilization. Nevertheless, I am sure that in their minds, these physicians desire to practice good quality care.

The length of stay during our study period remained higher than was our goal because the patients stayed in the hospital while receiving no interventions. In my opinion, this is poor utilization and puts such patients at risk for further problems that can occur with prolonged length of stay. The question then becomes, "Is poor utilization poor care?" ♦

Gary Ross, DO

Medical Staff Liaison
Department of Quality Management
Staff Emergency Physician
Department of Emergency Services
Detroit Macomb Hospital Corp—
Macomb Hospital Center
Warren, Mich