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Professional Monopolies in Medicine

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PHYSICIANS, LIKE OTHER PROFESSIONALS IN SOCIETY, stake out a scope of practice that gives them ownership rights to performing tasks within a specific clinical territory. Just as lawyers reserve exclusive rights to practice law and pharmacists to dispense pharmaceuticals, so also have physicians demarcated subspecialty lines. Oncologists are the cancer experts, obstetricians bring children into the world, pediatricians take care of children, and neurosurgeons perform brain surgery. These ownership rights constitute professional monopolies.

In general, most societies encourage free competition and discourage monopolistic behavior, which restricts supply and raises prices above true costs. Societies do so through the legal system via antitrust legislation to prevent price fixing. Legal exceptions are granted in a few cases to promote other societal goals. In public utilities, for example, monopolies were formerly granted for reasons of standardization and economies of scale (ie, larger size reduces costs). In pharmaceuticals, monopolies are granted to promote innovation and discovery.

The rationale for professional monopolies is competency: no one would want a computer engineer to fix plumbing problems. In the case of medicine, the stakes are higher because of the added concern for patient safety; the consequences of inadequate qualifications in medicine lead to disability or death, rather than leaking pipes in plumbing. Medical school dedifferentiates incoming students and lays a basis for general medical knowledge; residency and fellowship training are intended to redifferentiate graduates by teaching specific skills and knowledge necessary for their respective specialties. This partitioning of health care into numerous professions and the medical acts that each may perform is, in a broad sense, determined and monitored by licensing bodies that are occasionally directed by government edict. Specific medical tasks are sometimes determined by specialty certification bodies, sometimes by reimbursement authorities, and sometimes by local facility management. Therefore, precise boundaries are dynamic and disputable. As a result, “turf battles” often occur, with more than 1 professional group competing to perform the same task.

These turf battles may occur between 2 members of the same specialty (eg, 2 cardiologists vying to perform proce-

dures on the same patient population), between members of different specialties (eg, a general surgeon and a gastroenterologist both offering endoscopy), or even between 2 members of different health professions (eg, midwives and physicians competing to deliver neonates). In this Commentary, we briefly discuss 4 examples of turf battles to illustrate some of the issues that arise when professional monopolies are disputed in health care.

Examples of Turf Battles

The first example concerns independent prescribing powers for pharmacists (ie, pharmacist prescribing medications without a physician prescription or order). In Canada, this debate currently rages as a result of some provinces recently granting limited prescribing powers to pharmacists.¹ A subsequent article included a resolution from the Canadian Medical Association that “recommends that pharmacists not be given independent prescribing authority.”² In other countries, there has been evidence that granting such powers was beneficial to patients, including improving access and decreasing delays.³ On the medical units at teaching hospitals, pharmacists are generally much better informed about patients’ medication regimens than most physicians. Others have shown that assigning pharmacists to inpatient services results in decreased medication errors, prescription costs, and hospital stays.^{4,5}

Evidence dating back several decades suggests that pharmacists may have slightly better prescribing records than physicians in some situations.⁶ Yet fierce physician-led opposition to expanded prescribing powers for pharmacists persists. A common argument is that pharmacists may have the knowledge to prescribe accurately in the majority of common scenarios but may not recognize the minority of cases in which there is something unique about the scenario. Of course, this argument applies to most physicians as well.

The second example involves the competition between physician groups over which group is best able to treat specific conditions. Myocardial infarction is a fairly well-documented example. A number of studies have attempted to determine whether there were differences in costs and mortality when patients with acute myocardial infarction

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were treated by primary care physicians vs cardiologists.^{7,8} The results generally indicate that treatment by a cardiologist was associated with greater use of resources and higher costs, whereas mortality differences varied.

The third example is the debate that occurred over liver transplantation center volumes. Edwards et al⁹ compared the mortality rates deemed as high vs low volume after liver transplantation in the United States. They chose an arbitrary threshold of 20 liver transplantations per year to divide centers into high and low volume and showed a difference in mortality rates favoring high-volume centers. The implications for funding and referrals to low-volume centers and surgeons were obvious. Readers were quick to criticize the study, citing the lack of rationale for the threshold and use of potentially outdated data, and to question the authors' political motives.^{10,11}

The final example involves interventional radiology. During the last several decades, minimally invasive procedures have been developed that are less expensive, quicker, and as effective as the alternative traditional surgical treatments, and therefore have been quickly replacing them. For example, in some cases, percutaneous coronary intervention procedures have replaced coronary artery bypass graft surgery, endovascular aortic repair has replaced open surgical aortic repair, and uterine artery embolization has been shown to be a less expensive and less invasive alternative to hysterectomy as a treatment for fibroids. These developments have resulted in numerous turf battles between interventional radiologists, vascular surgeons, and cardiologists, among other groups.¹² In part because of decreasing surgical volumes, surgeons are now performing endovascular treatments developed and previously dominated by interventional radiologists,¹³ in particular peripheral angioplasty. Many interventional radiologists argue that nonradiologists have not undergone rigorous fluoroscopic training that includes intensive radiation safety training.

Interventional radiologists are at a disadvantage because of traditional patient-flow dynamics. Patients with peripheral artery disease generally consult a vascular surgeon first, who then decides whether to refer them to an interventional radiologist. If the surgeon wishes to perform the angioplasty, patient control may override skill. Interventional radiologists have had to adapt and now accept direct referrals from family physicians, run inpatient and outpatient clinics, and consult with patients before the procedure and in follow-up.

Underlying Causes of Turf Battles

Although most arguments supporting professional monopolies are framed in the context of competency, patient safety, effectiveness, and efficiency, much of the motivation that lies behind the turf battles that ensue is caused by income considerations. More specifically, attempts to expand the workforce available to deliver a specific type of service (eg, allowing pharmacists to dispense prescriptions or mid-

wives to deliver neonates) are vigorously supported or resisted, depending on whether there is financial benefit or disadvantage to doing so. For example, those resisting expansion of the workforce may fear that the increase in supply will erode their own incomes. Conversely, those pushing for an expansion of the workforce may see an income benefit. This motivation is virtually always unspoken during the debate.

On the other hand, those who establish health policy from the level of government down to local management boards enter the fray when it is believed that established monopolies are not behaving in the interest of the public. In these circumstances, decision-making bodies must balance a number of considerations in deriving a solution.

Instruments for Solving the Problem

Dukes¹⁴ has discussed the origins of public policies, laws, and regulations to balance private behavior with the public interests in areas of health care specifically related to the pharmaceutical industry. Free enterprise without regulation can in some circumstances lead to incentives for behavior that are deemed inappropriate. In these circumstances, advanced societies develop legal constructs to prevent antisocial behavior.

In the case of professional monopolies, the first mechanism available is government regulation of who can perform which task. Government regulation is required in 2 circumstances. The first is to prevent the public from having clearly unqualified individuals claim they can perform tasks (eg, lay individuals performing complex surgery or self-prescription of narcotics). At the other end of the spectrum, public action is required to break down monopolies to expand the workforce available to deliver a service (eg, midwives). However, government regulations are neither sufficiently sensitive nor sufficiently specific to solve all problems in the health care workforce.

The second mechanism for determining who does what in health care is to rely on the self-governing professional bodies such as licensing boards or specialty examination organizations to determine appropriate work boundaries. The problem with relying exclusively on self-governing bodies is that they may have no reason to cooperate with one another. Solving workforce problems this way requires successful negotiation that keeps the public interest in mind. Unfortunately, none of the self-governing bodies has a total societal perspective.

The third instrument is the marketplace. Free enterprise would allow patients to determine what kind of professional is most appropriate to provide their care according to reports about price, quality, safety, volumes, training, and years of experience. Unfortunately, the market for health care is distorted by the asymmetry of information and the wedge between the prices seen by consumers and producers, making it exceedingly unlikely that market forces could solve the problem.¹⁵

The penultimate instrument is local management boards. In some countries, regional health authorities determine local health policies, including workforce task assignments. In the United States, this would more likely fall to individual health care delivery organizations such as managed care organizations or hospitals. The advantage of this solution is that each organization could respond to circumstances unique to its location. For example, in some hospitals only certified otolaryngologists might be deemed competent to perform thyroidectomies, whereas in other hospitals a specific general surgeon might have the highest level of expertise. What works in one state might be unlikely to work in another, and local solutions would form a key element in addressing this policy.

The final instrument is the legal system. In the end, the threat of a lawsuit if an individual performs a procedure without the appropriate level of competence may be the most powerful deterrent. It is clear, however, that relying solely on court cases is not an appropriate way to solve this problem in its entirety.

Conclusion

Professional monopolies are not unique to health care, nor are they a new issue. However, with the expansion of health care technologies that can be realistically performed by several different groups of professionals with requisite training, this issue will require more attention. Ultimately, a combination of the instruments discussed in this article will be used; however, it is appropriate for those who oversee a country's entire health care system to consider the best way to solve this problem.

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REFERENCES

1. Yuksel N, Eberhart G, Bungard TJ. Prescribing by pharmacists in Alberta. *Am J Health Syst Pharm*. 2008;65(22):2126-2132.
2. Kondro W. Canada's doctors assail pharmacist prescribing. *CMAJ*. 2007;177(6):558.
3. Cooper R, Anderson C, Avery T, et al. Stakeholders' views of UK nurse and pharmacist supplementary prescribing. *J Health Serv Res Policy*. 2008;13(4):215-221.
4. Torchinsky A, Landry D. An analysis of pharmacist interventions. *Can J Hosp Pharm*. 1991;44(5):245-248.
5. Ariano RE, Demianczuk RH, Danzinger RG, Richard A, Milan H, Jamieson B. Economic impact and clinical benefits of pharmacist involvement on surgical wards. *Can J Hosp Pharm*. 1995;48(5):284-289.
6. McGhan WF, Stimmel GL, Hall TG, Gilman TM. A comparison of pharmacists and physicians on the quality of prescribing for ambulatory hypertensive patients. *Med Care*. 1983;21(4):435-444.
7. Jollis JG, DeLong ER, Peterson ED, et al. Outcome of acute myocardial infarction according to the specialty of the admitting physician. *N Engl J Med*. 1996;335(25):1880-1887.
8. Frances CD, Shlipak MG, Noguchi H, Heidenreich PA, McClellan M. Does physician specialty affect the survival of elderly patients with myocardial infarction? *Health Serv Res*. 2000;35(5 pt 2):1093-1116.
9. Edwards EB, Roberts JP, McBride MA, Schulak JA, Hunsicker LG. The effect of the volume of procedures at transplantation centres on mortality after liver transplantation. *N Engl J Med*. 1999;341(27):2049-2053.
10. Hillebrand DJ, Concepcion W. Volume of procedures at transplantation centers and mortality after liver transplantation [letter]. *N Engl J Med*. 2000;342(20):1527.
11. Laks MP, Cohen T, Hack R. Volume of procedures at transplantation centers and mortality after liver transplantation [letter]. *N Engl J Med*. 2000;342(20):1527.
12. Huckman RS, Pisano GP. Turf battles in coronary revascularization. *N Engl J Med*. 2005;352(9):857-859.
13. Rosenberg J. Speakers debate new arenas for endovascular surgery [VascularWeb Web site]. http://www.vascularweb.org/professionals/vascular_specialist/vol1/number1/newspaper_9_19219_19144.html. Accessed December 12, 2008.
14. Dukes G. *The Law and Ethics of the Pharmaceutical Industry*. New York, NY: Elsevier; 2006.
15. Wells DA, Ross JS, Detsky AS. What is different about the market for health care? *JAMA*. 2007;298(23):2785-2787.

Defining and Improving Survival Rates From Cardiac Arrest in US Communities

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SINCE EMERGENCY MEDICAL SERVICES (EMS) PROGRAMS began in the early 1970s, much has been learned about the management of out-of-hospital cardiac arrest. The key therapeutic interventions, metaphorically characterized as 4 links in a chain of survival,¹ are rapid access, rapid cardiopulmonary resuscitation (CPR), rapid defibrillation, and rapid advanced life support, including endotracheal intubation, intravenous access, and medication. Many researchers propose a fifth link—timely postresuscitative care, namely, hypothermia.² In addition, event factors such as witnessed collapse, cardiac rhythm, and comorbidity are associated with the like-

lihood of resuscitation. Each of these therapeutic and event factors helps explain why an individual may live or die following cardiac arrest. Yet the predictive power of each of these factors pales in comparison with one easily characterized feature. The most important, powerful, and underappreciated factor is the community in which the cardiac arrest occurs.

Since 1990, fewer than 24 US communities have reported their survival rates from ventricular fibrillation

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