Turmoil in the Physician's Workshop

By Douglas E. Hough, PhD, Column Editor

Hospitals have often been characterized as the physician's workshop, reflecting the mutual dependence and productive synergy between physicians and hospitals. Nevertheless, this tradition of cooperation is in danger of being overridden by competition.

Starr has documented the parallel rise of hospitals and the medical profession in the last century. However, as Starr has noted, pressure on reimbursement has encouraged hospitals and physicians to extend their scope of activity, which by design or happenstance has meant encroaching on each other's traditional services. Thus, physicians have created ambulatory diagnostic and surgery centers to increase the efficiency of their practices and diversify their sources of income. For their part, hospitals have started to acquire or have acquired physician primary care practices to extend their visibility in the community and to strengthen their distribution channels.

These activities have created tension between the hospital and the medical staff but, until recently, have not disrupted the relationship. That situation has changed dramatically in the past year; the change was precipitated by the physicians' growing investment in freestanding, for-profit, single-specialty hospitals. Community hospitals, faced with narrowing profit margins, view this competition as skimming off their profitable service lines (cardiac, orthopedic) and higher-paying patients, thereby leaving the hospitals providing essential but not as profitable services for lower-paying patients.

Hospitals are becoming more aggressive—barring physicians who invest in rival hospitals from medical staff leadership or hospital board positions.

EIRMC's approach is perhaps the most instructive. More than 1 year ago, the EIRMC board, composed of 5 community members and 5 physicians, adopted a medical staff development plan. The purpose of the plan was to "promote and protect the community's access to high-quality, full-spectrum services for all," by "formalizing rules" for relationships between EIRMC and physicians. According to the hospital, the plan "does not contain a 'zero tolerance' competition policy," but rather "establishes standards of 'fair play' by prohibiting harmful, disproportionate referral practices by physicians with a financial stake in competing facilities." In an open letter to the community, the hospital says that it collected data for 1 year to monitor physician compliance with the plan, and acted only after receiving the results of the analysis.

The actions of these hospitals have raised the stakes for those physicians who seek to compete with hospitals, and may represent the beginning of an irreversible transformation of physician/hospital relations—from one of trust to one of contract.

This situation looks very familiar to economists; it is a version of the classic "prisoner's dilemma game." In this game, the police arrest 2 suspected criminals, bring them to the police station, and question them separately. They offer each a light sentence if he or she confesses and implicates the partner. However, if each prisoner confessions, both will receive the heaviest sentence possible. If neither confesses, both will receive moderate sentences. The optimal joint strategy is not to con-
fess; however, each prisoner’s optimal strategy (absent communication) is to confess. The result (known as the “Nash equilibrium,” after John Nash of *A Beautiful Mind* fame) is that both prisoners confess—and are significantly worse off.

Physicians and hospitals face a similar dilemma. If they cooperate, both will be much better off; the hospital will have a reliable source of patients and expertise, and the physicians will have a workshop that meets their needs. If both compete, scarce resources will be expended in duplication of facilities as well as in acrimony and lawsuits. Unfortunately, the temptation of the prisoner’s dilemma is to compete in hopes that the other side will continue to cooperate.

Game theorists have posited several solutions to the prisoner’s dilemma game. First, the players could agree to mutual constraints on confessing/competing. They could submit to regulations that restrict or penalize competing (eg, certificate of need laws, laws prohibiting the corporate practice of medicine, moratoria on physician investment in single-specialty hospitals). As history has shown, though, loopholes can always be found, and regulations themselves can boost the rewards for those who find a way to avoid them.

Second, the players can self-regulate through mutual trust. As many observers have noted, however, trust is a fragile commodity and rarely can be rebuilt if destroyed. It is unlikely that hospital/physician relations will ever be the same at Ohio Health, Baptist Health System, or EIRMC.

More pragmatically, political scientist Robert Axelrod has determined experimentally that the optimal strategy in a multiperiod prisoner’s dilemma game is what he calls “tit-for-tat.” That is, assuming that the players will interact with each other multiple times (as physicians and hospitals do), each player will do best by reciprocating in the next round with whatever action the other player made in the previous round. As Axelrod notes, this strategy has the advantage of being nice (by rewarding cooperation with cooperation), retaliatory (by punishing competition with competition), forgiving (by limiting the extent of the retaliation), and clear (by making the strategy transparent to the other player). “Tit-for-tat” works particularly well when the players are not envious, reciprocate with both competition and cooperation, and try not to be too clever.

The administrators of EIRMC are following the “tit-for-tat” strategy. They have announced their intention to reciprocate competitive behavior; they have stated that they will not oppose all competition, just what they consider to be egregious; and they have made their approach clear and public. Physicians in Idaho Falls can be certain of EIRMC’s behavior in the future.

In addition to the inherent attributes of this strategy, Axelrod offers several recommendations to improve the outcome of the prisoner’s dilemma game. The most powerful is to “enlarge the shadow of the future” by making interactions between the players more durable and more frequent. Ironically, this recommendation requires physicians and hospitals to have more contact, rather than less (as seems to be the trend). More contact means more collective activities (from blood drives to quality improvement projects to jointly developed single-specialty hospitals). More contact also means physicians and hospitals concentrating on making the workshop more efficient. In other words, more contact means returning to what made physicians and hospitals successful in the first place.

**References**