MEDICAL MALPRACTICE*

HOWARD HIATT, M.D.
Professor of Medicine
Harvard Medical School
Boston, Massachusetts

Before beginning my presentation, I want to express, I'm sure on behalf of all us, gratitude to Alfred Gellhorn. He made it possible for us to come together to pay tribute to a man who has been characterized as the most important official in health, public or private, of our era. A characterization that, in my view, is not hyperbole.

Malpractice law is that branch of the law that deals with injuries suffered by patients during medical management. The physician or other provider is liable if the injury is caused by negligence.

Let me cite the patient who consults a physician for a strep throat. The patient has never had penicillin before and is treated with that drug. He develops a reaction that requires two weeks of hospitalization, a reaction so severe as to require hospitalization and leads to inability to work for several months. That patient suffered a medical injury, one that would not have taken place absent medical intervention. Negligence? Of course not. Penicillin was the proper treatment for a patient with strep infection who has never had that drug before.

The same patient returns a year later with the same problem, is treated in the same way and develops the same complication. Again, a medical injury, negligence? Of course—a patient with demonstrated sensitivity should not be given penicillin. Under our tort system, which governs medical injuries, the patient in the second circumstance is entitled to full recovery of medical expenses, lost wages, household production, and often, payment for pain and suffering. In the first situation, however, the patient, whose losses may have been no less, is entitled to nothing. With an insurance system as porous as ours, there surely are incentives to prove negligence when an unexpected catastrophe takes place.

When we began our study, there had been an upsurge in the number of

---

* Presented as part of a symposium, *Dr. David Axelrod and the Health of the Public: Looking Ahead,* cosponsored by the New York State Department of Health, the New York Academy of Medicine, and the Josiah Macy, Jr. Foundation October 23, 1991.

suits from one per 100 doctors per year in 1960 to 18 per 100 doctors per year in the mid '80s. Simultaneously, settlements increased from $60 million in 1960 to over $5 billion in 1985. Not surprisingly, malpractice premiums paid by doctors (and through doctors by patients) increased to levels as high as $185,000 per year. Many other effects of the malpractice problem confront us: defensive medicine—its costs and the impaired quality of treatment that it often leads to; psychological effects on physicians, on patients, on physician/patient relationships; and many others.

Many remedies have been suggested; including cutbacks of legal rights of victims and no fault compensation. But producing fair, effective, and sensible remedies has been hampered by inadequate facts concerning the effects of the tort system in addressing its two objectives: first, compensating the victims of medical injury and, second, discouraging negligent behavior on the part of the physician, hospital, or other provider of care.

Against this background, a group of colleagues, including Paul Weiler, Professor of Law at Harvard; Joseph Newhouse, Professor of Economics; Nan Laird, Professor of Statistics; a group of others and I undertook to address four questions.

First, what are the dimensions of the problem? How much injury is there among hospitalized patients and of the injury that takes place, how much is the result of negligence?

Second, what is the relationship of the injury to litigation? How many patients who were injured bring suit claims? And, on the other side of the coin, how many of the people who bring claims have, in fact, been injured?

Third, how much does this all cost? And who bears those costs?

Fourth, with respect to deterrence, what are the effects on physicians, on institutions? Is there in fact better quality care because of the existence of the tort system?

Our goal was to provide information that would lead not only to sensible policy change, but also, and more important, to the prevention of the injuries. The results of the study, some of which I will summarize for you today, have been described in a book that will be published in 1992 by Harvard University Press and that is dedicated to David Axelrod. When we began, we took our research program to key officials in both government and organized medicine in a state that will be nameless. We received a cool reception in both quarters. On investigation, we discovered the reason. And, now, let me read from the preface of our book:

A bill was then pending in the state legislature that proposed the standard reforms of cap on pain and suffering awards and a stiffer medical disciplinary

regime. No one wanted to take the chance that these controversial solutions might be stopped short of enactment if and when legislators learned that a comprehensive study was being undertaken about the nature of the problem. Happily for us as our project seemed becalmed, our path crossed that of Dr. David Axelrod, the Commissioner of Health of New York and the central figure in efforts of the Cuomo Administration in grappling with these same issues in that state. Dr. Axelrod needed no persuasion of the value of what we proposed. With his support, the Governor and the Legislature attached to a pending malpractice reform bill, a provision that required and funded a systematic empirical study to help shape the future course of action within the state. Although, we were somewhat diffident about presenting our cost estimate of $4 million for our projected four-year study, Dr. Axelrod observed to us and to his colleagues in government that New York doctors and hospitals, and through them New York citizens, were well on their way to spending a billion dollars annually for malpractice insurance.

While there were obvious logistical difficulties in a Harvard-based group carrying out such research in New York, the state also offered us critical advantages. New York is large and diverse in its population and patients, in its economic and social programs, in the kind and quality of its health care providers, and in the extent to which its malpractice system was being used by patients and directed at doctors. Gathering and analyzing this rich and varied experience promised us, then, both statistically significant results within the state and findings that would be highly relevant to the malpractice debate across the nation.

But the most important resource that New York offered us was David Axelrod. Dr. Axelrod won the support of the New York State Medical Society and thence of the American Medical Association. He secured for us the cooperation of a host of people in the Department of Health, in the Department of Insurance and, most important, in the state's hospitals. He regularly provided us with illuminating suggestions about the focus and design of our research itself. We cannot overstate the vital role played in the Harvard Study by David Axelrod, as in so many of his other major initiatives that have and will contribute enormously to the health of Americans.

Hospital Survey

We picked 1984 because we wanted a year sufficiently close to the present so that we could make generalizations that would be reasonably applicable today. But we wanted a year sufficiently distant so that litigation issues might have played out as much as possible. People generally don't bring claims for

a year or more after an injury, and those claims don't work their way through the system for years longer.

Next, we could not, of course, examine the records of all 2.6 million people hospitalized in 1984 in the state's 260 acute care, nonpsychiatric hospitals. Therefore, we took a randomized sample of 51 hospitals, teaching and nonteaching, private and nonprofit, urban and rural, government and nongovernment. I think a measure, both of Dr. Axelrod's persuasiveness and the gravity of the situation, was the fact that all 51 agreed to participate. From the 2.6 million patients we selected, a random sample of patients—over 31,000 patients, so that we would have a cross-section of obstetrical, neurosurgical pediatric, general medicine, and other specialties. Our procedures involved first, preliminary assessment of records by trained hospital record administrators. Those with any one of 18 signals, such as transfer to an intensive care unit, rehospitalization within 30 days, or death, were then reviewed independently by two board-certified internists or surgeons. We found, on our first pass, 96 percent of all records that we sought. (Again, a tribute to the commitment of the hospitals.) Subsequently, we found an additional 2 percent. It was crucial that we find as many as possible because we wanted to be sure that no select group had been set aside.

The results of our study were then generalized to the population as a whole. Overall, we found that in the year 1984, 3.7 percent of all patients hospitalized in New York hospitals suffered an adverse event, defined as an injury that resulted from medical intervention and that led either to prolongation of hospitalization or to disability at the time of discharge, or both. Of that number, over a quarter were the result of negligence. The inverse of that, of course, is that three-quarters of the injuries did not result from negligence. Most of these injuries were relatively less severe, that is, the effects of over 60 percent were over within a month, and 70 percent within 6 months. But 9 percent led to permanent disability and 14 percent were fatal. Of the deaths, more than half were the result of negligence. That is to say, almost 7,000 of the patients who died as a result of an adverse event experienced negligence.

The latter is the headline that many tabloids focused on when we had our first press conference with Dr. Axelrod. As he pointed out, and as we underline in the book, a large fraction of these people were very sick. The patient who had experienced a massive heart attack, was in shock, and very likely would have died of his heart disease within 48 or 72 hours, but who died an hour after receiving an overdose of a drug was by our definition considered to have died as a result of a negligent injury.

Our database concerning these injuries, where they took place, who expe-

rienced them, the effects of teaching and nonteaching hospitals, and of insurance status represents very important information that will guide much of our research and that of others. Let me point out a few observations that seem particularly important. First, poor people here, as in so many other situations, do less well than the well-to-do. There was more negligence among the Medicaid patients than the privately insured, and much, much more among the uninsured. There were more injuries and more negligence among the elderly.

In teaching hospitals, we found many more injuries than in rural hospitals. We determined that it is because in the teaching hospitals many very sick and often elderly patients undergo major risky procedures. A drug reaction, let's say, in such an individual may lead to very much more serious results than a reaction in a young person who is hospitalized in a rural institution for pneumonia. There was less negligence in the teaching hospitals than in many other institutions. A great deal of additional information, such as the fact that 20 percent of all injuries were the result of drugs helps guide us as we look to prevention.

Litigation

What of the relationship of claims of injuries? Many people believe that we are not experiencing an excessive number of claims. We looked at all tort claims filed in New York for five years before and five years since 1984. We found 3,800 claims filed for patients hospitalized in 1984. Since about 50 percent of all claims are paid year after year, one can presume that about 1,900 will be paid. Compare those figures with the number of people who experienced negligent injuries: 14 patients were injured negligently for every paid claim. Even restricting our consideration to seriously injured people, five people died or were seriously injured as a result of negligence for every paid claim.

The situation appeared even more discordant when we examined claims made by the patients in our sample. When we matched hospital records with claims, we found that of the 31,000 patients whose records we examined, 47 filed claims. In the records of that group, we found evidence of negligent injury in only 17 percent. We could find injury of any kind in only an additional 21 percent. On the basis of control studies we did earlier, we know we must have missed some, but we believe we may well have "overcalled" an equivalent number. In any event, our evidence suggests that while the system is very inefficient producing claims for patients who were injured, it may be

equally or more inefficient in terms of claims on behalf of patients who were not injured.

Our results surely provide no basis for the charge that the tort system produces excessive litigation. Further, the implications are rather sobering. We now hear a good deal about the seeming lull in malpractice claimants. I mentioned earlier that there was a surge of claims in the 1970s and 1980s. Our data suggest that, absent change, we can anticipate a surge in the 1990s. Indeed, if the number of people who bring claims were closer to the number of people who are injured, we might see not 18 claims per 100 doctors per year as in 1985, but two claims per doctor per year.

Treating Patient Losses

It has been suggested that a no-fault system would be very costly. To examine that issue, we surveyed patients who had been injured and a control group who were not. These people or their survivors were located and interviewed by Mathematica, a survey organization in Princeton. We determined their losses and the compensation for those losses.

This indicates that of the patients who were injured in 1984, we located 80 percent and interviewed 70 percent. This speaks to the skills of Mathematica for the interviews took place in 1989 and 1990. The overall costs of medical care, wage losses, and household production of all patients hospitalized in 1984 in New York hospitals exceeded $20 billion. The costs resulting from the adverse events alone—both negligent and nonnegligent—was almost $3.5 billion.

To determine the costs of a more limited, more sensible compensation system, we postulated a hypothetical no-fault arrangement that would cover all patients injured, negligently or non-negligently, and that would pay for financial losses, but not for pain and suffering. It would pay only for the more serious losses, that is, those that continued six months or longer following hospitalization. It would not pay losses covered by broader programs of loss insurance. We calculated that the cost of such a program for all New York patients injured negligently and non-negligently in 1984 would have come to $870 million. This may be compared with the approximately $1 billion spent for malpractice premiums alone for last year. The costs would not be much above the latter figure, even if you add 25 percent for administrative costs. (We suggest 25 percent, because that's approximately the administrative cost of Workers' Compensation, which is a similarly arranged program.) Thus, instead of our present system, which makes what are often huge awards to a very, very small fraction of negligently injured patients, we could provide to

a much larger population of patients injured negligently and non-negligently enough to cover expenses not met in other ways.

Deterrence

The tort system is designed to compensate victims, and I hope you'll agree that there are more efficient ways to do that than what we are now doing. But the system is designed also to deter doctors and institutions from inappropriate behavior. Our last question is, does it do that? if so, how well? We approached that far more difficult question in two ways. First we interviewed 2,000 physicians of the 52,000 in the state and obtained some subjective responses. As have others before us, we found that doctors are well aware the spectre of malpractice suits hangs over their heads. Indeed, their estimate of the risk of suit exceeds by far the actual risk. We also learned from them, not surprisingly, that there have been noticeable practice change.

Doctors also described changes in their practices. However, that doesn't tell us that they actually are more careful, or that there is less injury. The only way in which that question could be answered scientifically would be to compare what happens in a setting in which the tort system works with another in which there's no such system. There aren't, of course, two such settings in New York State or anywhere else in the country. So, what Professor Newhouse and his colleagues did was to attempt to measure the likelihood of negligent injury in institution after institution depending on the experience in that institution with respect to previous suits, that is, previous claims.

That work is not yet complete. But his calculations suggest that in the absence of litigation, negligent injuries might have increased. In any event, any change proposed in this system that deals with malpractice, must, of course, include attention not only to compensation of victims, but also to providing at least a substitute for whatever preventive effects the present system exerts.

The mandate to the Harvard team was to evaluate the existing system and to estimate the cost of an alternative approach. The study has served further as the basis for legal policy reflections and recommendations and for a growing amount of work in the area of injury prevention in medical settings. I believe the study can serve as a model for interaction between university and the public sector. The government, in this instance, David Axelrod, offered us access to the several bodies of information that were indispensable, and the resources to make the study possible. Equally important for those of us who were interested in policy research in order to see something happen, he and his colleagues have served as a client waiting for the results. On a personal note, the study offered me an opportunity to develop a relationship with an extraordinary man whose friendship I treasure.