MEDICAL PRACTICE

Medicine and the Law

Medical malpractice in perspective

I—The American experience

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Abstract

Concern over the possibility of an American style medical malpractice "crisis" in the United Kingdom has recently been voiced by members of both medical and legal professions. The validity of such fears is examined by reviewing the conditions that have given rise to the current American difficulties. It is argued that the rise in malpractice insurance premiums and associated restrictions in availability should be seen against the background of underwriting problems specific to medical liability in conjunction with a general decline in reinsurance cover. The evidence in relation to the clinical and resource implications of malpractice is analysed. In particular, arguments that increased litigation has influenced the practice of "defensive" medicine and the choice of specialty are critically examined.

Medical malpractice claims and insurance are only part of a professional environment which is undergoing dramatic social and economic changes, many of which seem more plausible candidates to be treated as important influences on the nature and organisation of health care in the United States.

Introduction

The recent sharp rise in defence society subscription fees is a forcible reminder of the increasing number and cost of medical liability claims in Britain. It has been seen by many as confirmation that the medical malpractice "crisis" in the United States has reached these shores.[1,2] But the validity of such fears and the correct policy response depend on a proper diagnosis of the nature of the problem in the USA. This paper analyses the conditions that have given rise to the current American difficulties: a second paper examines the likelihood of this experience being reproduced under different institutional circumstances in Britain.

Frequency of claims in the USA

Malpractice suits in the USA were uncommon until the late 1960s when the frequency of claims per physician began an unprecedented increase, reaching a brief plateau between 1975 and 1978, only to resume its climb in 1978. The frequency of claims as reported by the St Paul Company, the largest writer of medical malpractice insurance in the USA, was 4·3 claims per 100 insured physicians in 1970,[3] 7·8 claims in 1976, and 18·3 claims in 1986 (fig 1).[4]

Nevertheless, litigation is still relatively uncommon in relation to medical care episodes. An analysis of 5612 surgical admissions to a Massachusetts hospital found a rate of iatrogenic injury of 1%, of which 89% was attributable to "unnecessary, contraindicated or technically defective surgical activity."[5] In other studies that have focused on injuries caused by negligence rates from 0·8%[6] to 2·2% of admissions[7] have been suggested. By comparing the incidence of injuries in the former study with claim frequency, Danzon estimated that only 10% of these events led to claims, of which only half received compensation.[3]

Severity of claims in the USA

In the medical liability insurance industry claim severity means the average cost of damage awards paid by the defendant to the plaintiff. It is generally agreed that average cost of recorded claims in the USA has outpaced the rate of inflation, as measured by the consumer price index, since the early 1970s.[8] But the importance of this is difficult to assess because of major flaws in the claims data. The widely reported study of Californian

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jury awards by the American Medical Association fails to control for inflation or random annual fluctuations.[9] Other reports[10] rely on data from the Jury Verdict Research organisation, which also fails to adjust for inflation. More importantly, these data represent neither a complete collection of all verdicts nor a random sample so that large, highly publicised awards are overweighted. Finally, these data exclude out of court settlements, which account for 90% of all payments, and take no account of judicial adjustments to jury awards after appeal.[11-13]

Although several extremely high jury awards have been made, most independent analysts conclude that court awards and settlements are strongly influenced by "the extent of economic loss and by the law defining and sometimes limiting compensable damages."[14] The point is that in the USA these can be very large. A major element of many awards, for example, is the cost of health care. The St Paul Company's reported increase in claim severity of 63·5% between 1976 and 1981 appears to reflect closely the rate of price inflation for medical goods and services, which was considerably ahead of the general inflation rate.[15] Medical care prices, however, have grown more slowly since 1983 without a slowdown in the growth of claim severity. The same company reports an average annual increase in claim severity of 13% between 1981 and 1985.[4]

Medical malpractice insurance

The first malpractice crisis was signalled by a sharp increase in the cost of insurance. The years preceding 1974 were characterised by rising claims costs and increasing capital losses. Although a highly competitive insurance industry had initially resisted premium increases, they became inevitable. Between 1974 and 1975 premiums rose by 286% in Florida, 145% in California, and 193% in Tennessee.[16] During 1975 united lobbying and threats of strike action by doctors brought about statutes in every state except West Virginia restricting the plaintiff's rights, although a few of these have since been struck down as unconstitutional.[17] There were also state actions to regulate premium rates, which contributed to a subsequent short term problem in the availability of insurance as companies refused to write policies on terms which they considered to be uncommercial. This in turn led to public subsidies through joint underwriting associations and the establishment of mutual insurance and reinsurance companies by state and specialty medical societies.[3]

After this initial shock, however, doctors have generally succeeded in maintaining their real income by passing on malpractice premium increases in their fees and taking advantage of the tax deductions available. American Medical Association data on doctors' incomes and malpractice premiums show that the percentage of gross income spent on malpractice insurance has remained roughly stable at 3·8% for the period 1975-85,[18] confirming their earlier findings.[19] The doctors' ability to pass on these increasing costs has, however, begun to diminish with the replacement of fee for service by prospective payment schemes. Under fee for service doctors are reimbursed for each separate item of service, giving them more control of their income. Prospective payment, now widely used by both government schemes like Medicare and Medicaid and by private insurers and health maintenance organisations, pays a flat rate per patient out of which all services must be provided.[20,21]

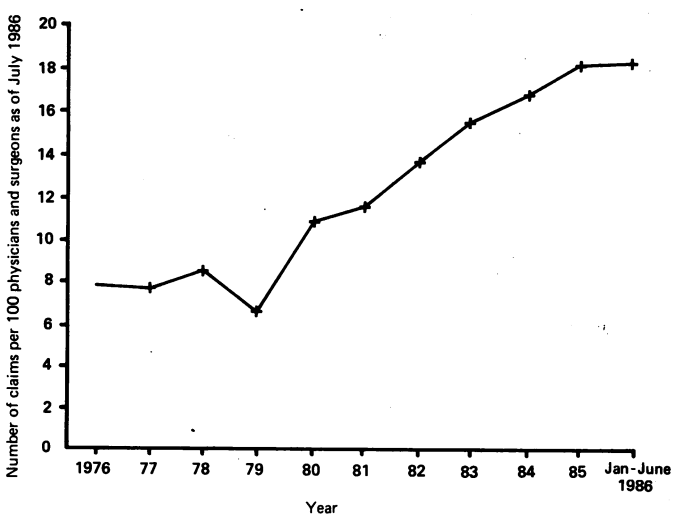

FIG 1—Number of claims per 100 physicians and surgeons from 1976 to June 1986 as reported by the St Paul Fire and Marine Insurance Company in the USA.

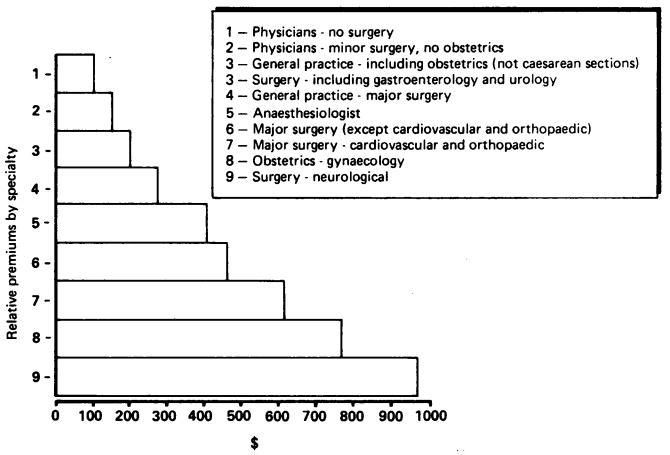

FIG 2—Premium relativities for malpractice insurance according to specialty (class 1=100) reported by St Paul Fire and Marine Insurance Company (1985).

But doctors have not been uniformly affected by increases in malpractice insurance premiums. The wide variation between states in the frequency and severity of claims is reflected in the rates charged.[3] There are also variations by specialty. Insurers group specialties into eight to 14 classes (fig 2).[22] Surgical rates are generally among the highest,[3,4] but so are surgeons' incomes.[23] Size of practice is the second most important indicator of premium level, with doctors who practise alone being charged more.[24]

The problems with the availability of insurance cover in the mid-1970s were eventually met by the establishment of physician owned mutual insurers. In the mid-1980s, however, a general drop in the supply of insurance precipitated a second availability crisis. Of the two largest commercial medical malpractice insurers, the St Paul Company suspended the acceptance of new policies in 1986[4] and the Argonaut Company stopped trading in 1986.[25] Several physician owned companies are currently in a precarious financial condition.[26]

Medical liability insurance is a difficult line of business for insurers. The "long tail" problem, the lag between injury, claim, and payment, makes actuarial forecasting prone to costly error. Fifteen per cent of US claims stretch over four or more years.[22] Companies that fail to estimate correctly their liability for outstanding claims, and set premium rates and investment targets accordingly, are placed under greater stress. The present crisis is partly due to the fact that after a brief honeymoon because of the lag in submitting claims this problem has begun to hit the new physician owned mutual companies.

The small size of the pool of policyholders hinders the effective spreading of risk, which is the basis of all insurance. Risk pooling is particularly limited in the physician owned mutual companies which tend to be organised on a state by state basis. Consequently, all the doctors in the pool are affected similarly by legal developments within a state, rather than the risk being absorbed across a number of states developing their law in different ways at different speeds. Insurers have consequently been vulnerable to sudden and unpredictable adverse changes in medical malpractice claims experience.

Of course, the normal response of the insurance market to such problems is to spread the risk elsewhere. Liability insurers lay off their risks by purchasing reinsurance to cover their own major losses and, in turn, reinsurers reinsure themselves in the retrocessions market. Historically, US insurers have relied on the London markets, particularly at Lloyds, for this facility.[22] Since 1984, however, a severe reduction in capacity in the reinsurance and retrocessions markets has developed because some smaller companies have stopped trading or have merged, due to heavy underwriting losses and insufficient capital reserves. This reduced capacity has led reinsurers to limit their exposure in the USA, particularly in marginal lines of business.[10,27-29] National medical associations attempted to provide sufficient US reinsurance domestically, but most of this was withdrawn in 1986 because of poor loss experience.[22] The decline in reinsurance cover is not a problem peculiar to medical liability, however. Even if the US medical malpractice market had no special problems appreciable premium increases would still be required because of the effect of underwriting losses elsewhere and the constrained capacity in the reinsurance market.

Clinical and resource implications of the malpractice situation

The most commonly noted implications of the malpractice experience in the USA are the practice of defensive medicine and a shift in the distribution and activities of doctors.

DEFENSIVE MEDICINE

Though there are many published anecdotal examples of defensive medicine,[17 30] clear definitions of its nature and reliable estimates of its extent are hard to find.[31-33] A widely quoted American Medical Association survey found that 40% of physicians admitted ordering additional tests and 27% carried out additional procedures as a response to the fear of litigation. The study concluded that this added 5% to total US health care expenditure.[17]

But there are two reasons for believing that the American Medical Association estimates may exaggerate the extent of the problem. Firstly, malpractice insurance premiums in the USA are rarely related to the claims experience of individual doctors,[3 4] so that "fear of litigation" can refer only to the disruption and embarrassment which court cases can produce: there is no direct financial cost to the doctor.[34] Secondly, fear of litigation appears to be less important than the payment system in explaining apparently redundant practices.[35-37] Under fee for service systems doctors have an inbuilt financial incentive to order as many tests and procedures as are clinically justifiable.[3 38] Consequently, practices that are perceived to reduce medicolegal risk may be undertaken without reference to financial constraints. Thus it is notable that similar increases in test and procedure rates can be observed in other countries such as West Germany with a fee for service system and no similar rise in malpractice litigation.[37] Conversely, the volume of tests and procedures seems to be declining in the US under prospective payment systems despite the expressed concern about litigation.[39-41]

Clearly, the concept of defensive medicine is not unproblematic and alterations in clinical practice as a response to litigation should not automatically be presumed to be wasteful.[13 34 42] The American Medical Association survey cited above also discovered an appreciable improvement in note taking and record keeping. Moreover, developments in medical audit in the USA bear this out, with "risk management" programmes being initiated by hospitals and insurers to apply "sound management technique to identification, assessment and resolution of problems to prevent medical mishaps."[43]

DISTRIBUTION AND ACTIVITIES OF DOCTORS

The working environment of US doctors has been undergoing dramatic changes. There is an aging population, much internal migration, an oversupply of physicians and hospital beds, and the gradual replacement of fee for service by prospective payment.[20] It is difficult to isolate the effects of the increase in malpractice claims and insurance premiums from these.

Much attention has been given to the survey by the American College of Obstetricians and Gynecologists, which concluded that doctors were leaving obstetrics or giving up high risk areas of practice.[30] This finding, however, is difficult to interpret since the survey also reports that surgical gynaecology has an appreciably higher frequency of claims than perinatology, although claims in perinatology tend to be more costly. It is only exceptionally that insurance fails to cover damage awards, while doctors must bear directly lost time and earnings and the personal distress involved with each claim. Claim frequency, therefore, seems more likely to influence practice patterns than claim severity. Insurers, on the other hand, work on calculations of the total losses (claim frequency × claim severity), which accounts for the loadings on obstetric premium rates.

These loadings have caused particular problems in rural areas, where general practitioners often practise some obstetrics.[30] In recent years they have been required to pay premiums roughly 270% more than general practitioners who do no obstetric work.[4] But rural practice has been under pressure for some years because of having to deal with a relatively poor, aging, and declining population. Thus there are fewer patients from whom to generate an income, and they are more likely to come under one of the prospective payment schemes like Medicare. Rural general practice is in a weak position to bear high premiums.

Furthermore, a move away from small maternity hospitals to regional centres was envisaged by federal health planning guidelines back in 1977.[44] In effect the US faces the same genuine policy issue as the UK—should part time general practitioner obstetrics be preserved? The insurance companies are merely adding market pressures to a long term planning objective of concentrating obstetrics in specialised hands. This does, though, generate greater problems of access in parts of the USA which are more remote and thinly populated than anywhere in the UK.

In urban areas the general oversupply of doctors obscures any shortages in specific specialties. There is no evidence yet of recruitment problems in specialties with the highest damage payments, such as perinatology or neurosurgery, partly because they also offer some of the highest incomes.

It has been suggested that providing medical care for low income patients, through Medicaid or charitable work, has been a particular victim of increasing malpractice claims.[45 46] Low income patients, however, are less likely to initiate or pursue claims than are middle class patients.[47] Again, it seems more plausible to attribute the change to the introduction of prospective payment which has made Medicaid less profitable and, possibly, obliged doctors to work harder for a target income and reduced the margin for charitable practice.

Conclusion

The behaviour of doctors in the USA seems far too complex to attribute to a single cause. Medical malpractice claims and insurance are only part of a professional environment that is undergoing dramatic social and economic changes, many of which seem more plausible candidates to be treated as important influences on the nature and organisation of American health care.

Nevertheless, increased litigation rates and insurance premiums have led to widespread dissatisfaction and pressures for reform from both inside and outside the medical profession. Three types of response can be distinguished. The first is to endorse the existing standards of practice and to seek to protect doctors from litigation by restricting plaintiffs' access to the courts and the extent of the compensation they can recover.[17] In a society with limited state health and welfare provision, however, this leaves many victims uncompensated or undercompensated. The second type of response is to introduce more rigorous quality controls on medical practice,[43] although the uncertainties of human biology and law limit the possibilities of success with this strategy. The problem of economic support for the adventitiously damaged patient remains. Finally, some reformers have shown interest in "no fault" systems for the compensation of victims, as in New Zealand and Sweden.[48] But these have been criticised for their limitations in deterring negligent practice.[49]

The perception of a malpractice crisis has undeniably led to a flurry of professional and political activity in the USA. Yet this may merely be a socially acceptable way of seeking to conserve the status and income of American physicians in a changing market. In evaluating the implications for the UK it is essential not to take that perception at face value and to understand how it relates to the peculiar institutional arrangements of medicine in the USA. Only then can it be determined whether British doctors are facing the same crisis and whether the same responses are in order. That will be the objective of a second paper.

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This is the first of two papers.

Portraits from Memory

15—Professor James Walter McLeod, OBE, FRS (1887-1978)

JAMES HOWIE

In 1932 I worked in Muir and Browning's department in Glasgow at the same bench and sink where McLeod had done his classical work on streptococcal haemolysins in 1910-1. I also worked with streptococcal haemolysins; and one day McLeod walked quietly into the room and stood watching me. He said, "I'm glad to see you wash out your own tubes, as I did." I confirmed that I did so because the routine wash did not guarantee perfect cleaning. But McLeod firmly made the point that the real merit of cleaning one's own tubes was that it provided a pause in which to assess the results of the last experiment and plan what would be the best objective of the next.

Professor J W McLeod.

"My thoughts grow as I wash," he said, "just as a gardener's grow when he is weeding."

He was in every way a big man: tall, handsome in appearance, and generous in spirit. I well recall his being challenged at a meeting of the Pathological Society by a sharp and persistent critic of smallish stature about his applying the terms *gravis*, *mitis*, and *intermedius* to his recently identified three biological types of diphtheria bacilli. Nature, said the critic, did not arrange living creatures in such a disciplined and repeatable way as these terms implied. Would not types 1, 2, and 3 be better labels, not implying that the clinical infections caused by these types would always be grave, mild, or intermediate? The critic had a good point, as later events have confirmed, but McLeod's polite negative did not silence him. He persisted a second time. McLeod remained polite but firm. At the third challenge, however, his politeness remained but his firmness perceptibly increased. McLeod's well known bulldog expression appeared in all its glory, and Carl Browning whispered to me, "Can you see how the bulldog longs to grab the terrier by the neck?"

Epstein was obviously the sculptor to do justice to so striking and distinguished a head, and a notable bust was duly made and presented. In McLeod's own view the bust was a perfect replica not only of his own but also of his mother's head, showing incredible skill in the portrayal of essential features.

Track records

McLeod's distinguished scientific career has been adequately described in obituary notices, and is so well known that it is unnecessary to repeat the details of a long record to which he was still adding right into retirement and up to his final years. He was a remarkable man, a tireless and purposeful worker as well as a person of indomitable courage and complete personal integrity. In the first world war he ran a mobile laboratory, did excellent work on trench

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