judgment of the amount of work necessary, failure to learn to organise their own work, waning of motivation, or because of the diversion of personal entanglements). A few fail at the end of the second year. If examinations held in June of each of the first two years are failed they must be passed at second attempt in September. Students rarely drop out in the clinical years: a change of heart or illness are the usual reasons.

Intercalated honours degrees

Grants are made available through the Medical Research Council for 10% to 15% of students at schools with a two year preclinical course to undertake an intercalated BSc honours degree in a third preclinical year. Their contemporaries go straight on into the clinical course. A wide range of BSc courses is available in different schools and includes single subject courses in a preclinical science department or a combination of course units in different departments, such as "infection and immunity" courses mounted jointly by departments of medical microbiology and immunology. London University students can arrange to undertake an intercalated BSc in a college other than their own medical school.

There are several attractions of taking an intercalated BSc degree which more than outweigh the disadvantage of losing immediate contact with colleagues with whom the first two years have been spent and of lengthening the course by one year. The advantages include the development of a critical approach, a training in laboratory and library research procedures, and education in depth in a field of science often chosen to have direct relevance to the understanding of clinical medicine. It is useful to have a BSc degree to mark the years of study of sciences related to medicine because it provides a qualification which most students do not have when they enter the keen competition for postgraduate training posts. A science degree is also useful to the occasional student who drops out of the medical course and would otherwise have nothing to show for several years of university work. Clinical teachers used to regard an intercalated BSc as irrelevant to clinical training but this attitude is passing, not least because of the increasing relevance of the subjects of BSc courses to the understanding of disease.

Aviation Medicine

Legal aspects of inflight emergencies

P J C CHAPMAN

In a series of articles on aviation medicine published recently in the *BMJ* the authors referred to medical emergencies occurring in passenger aircraft and the part that a doctor who might be on board could be called on to play.[1] This has awoken a latent interest, in some cases even a nagging fear, in the minds of some practitioners concerning the medicolegal implications of such a dilemma.

What is clearly required is an authoritative guide to spell out the exact implications of every dilemma that could develop. Alas, this is not only impossible in the context of air travel: it is equally impossible in any parallel problem that might occur on the ground. Were it not so there would be no need for lawyers and judges. All that can be sensibly afforded are some general principles that are likely to be relevant to such circumstances.

British registered aircraft

Because the number of variables in international travel is almost infinite it is best to consider the most straightforward problem and assume that a British owned and registered aircraft is flying within the United Kingdom in which a British subject resident within the country becomes ill and is treated by a doctor who is a fellow passenger. What then are the liabilities, given that the person responding is fully registered to practise medicine here? The answer is straightforward and the responsibility and obligations no different from those occurring daily in doctors' lives. The doctor will be expected to act with the same reasonable professional skill as he would on the ground below but within the physical restraints—such as limited space, noise, and basic equipment—that inflight conditions impose. His judgment must always ultimately rest on the patient's best interest, which may not always accord with his and his fellow travellers' convenience. He would have to remember to act only within the ambit of his own professional skills and not—if an alternative exists, as it may—exceed them.

If the doctor comes forward as a result of a call for help from the crew, rather than volunteering his services direct to his fellow passenger, then he will technically be acting on their behalf and thus on behalf of the aircraft operators. This raises another facet to this apparently simple problem and concerns the responsibility of the airline themselves. They cannot be held responsible for the doctor's professional actions but they must, through the cabin staff, take reasonable care themselves to ensure that so far as it lies within their power this volunteer really is a bona fide medical practitioner and not, as has occurred, a deliberate or inadvertent imposter. There is a clear duty of care on them to do what they can to check this point and it is equally clear that such inquiries may well give offence to the doctor concerned. Even if documents, such as a passport, are available and even if these can be asked for and produced without the appearance of overzealous suspicion they may be inconclusive. Many who are not medical practitioners may yet use the style of "doctor."

One of the peculiarities of inflight illness is that a basic question to be answered must always be whether the flight can be continued to its destination or whether a premature diversionary landing has to be made. The latter may not be popular with anyone, but it is a decision that may have to be made as early as possible. This has to be related to the fact that the patient's apparent condition may well be one with which a doctor may be entirely unfamiliar after perhaps a lifetime's

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work in a narrow specialty. To those around him he is the genuine article, omniscient in his knowledge and skill, but only he will know his own limitations and experience. He will, if he is to avoid blame, have to remember that he must act and advise strictly within the limits of his own competence, which he (and no one else) knows, and must not exceed this if another and safer course is open. On other occasions, when no diversion is possible—such as in long overwater sectors—he has no such escape whatever his lack of particular experience and must do the best he can. In such circumstances his performance would be judged against his experience in the particular dilemma in which he finds himself and which circumstances have forced on him. He must, therefore, make two decisions, each with its own responsibility: firstly, that he is competent to deal with the circumstances and, secondly, to act with reasonable care within that competence.

American registered aircraft

Thus even the apparently simple problem is not without its nuances, but clearly most will not even be as clear cut as this. For example, the passenger, although resident in the United Kingdom, may in fact be an American national or the doctor may be travelling in an aircraft that is registered in another country. As I said earlier, the variables are almost infinite and the straightforward principles of English or Scottish law may not apply as other codes of law may be effective and the natural inclination of an English court to be sympathetic to a doctor coming forward to help at a time of crisis may not be present. In some other countries, in particular the United States, the public in general and therefore patients are much more litigious, particularly where personal injury cases are concerned, and there are countries where the "ambulance chasing" lawyer is a reality. The facts are that if the emergency concerns an American passenger or takes place on an American registered aircraft an action could be brought in an American court. Two points need explanation. Firstly, under United States law it is perfectly ethical and normal for a lawyer to act on a contingency basis—that is, he can take up any case in which he believes that there may be damages awarded and agree that his fee shall be paid on a percentage of such damages and therefore if no damages are awarded he will get nothing. Many people ascribe the large amount of litigation in some of the American states to the contingency fee system. Secondly, in the United Kingdom the quantum of damages is always determined by a judge, but this is not the case in the United States, where a civil jury makes this award and the amounts are often vastly in excess of any yet awarded in the United Kingdom. Because of this, many doctors in the United States and elsewhere would at least think twice before volunteering their services in an emergency and might even consider it more prudent not to intervene at all. This is a point of view which is understandable if uncommendable.

Good Samaritan legislation

As a direct consequence of this problem attempts have been made to introduce a "Good Samaritan Act" in the United States. Such a Bill was introduced to Congress by Representative Carl Pursell. This was a simple Bill to relieve any doctor, registered nurse, or aircraft employee who rendered medical attention to an ill or injured person on board an aircraft of any civil liabilities except in the case of gross or wilful negligence. This did not, however, become law. Excellent as the intentions of the Bill may have been, its object was to reduce the amount of legislation, and its effect would have been to reduce the work of lawyers in a country in which an exceptionally strong legal lobby exists. During 1983 Senator Goldwater, however, introduced the Inflight Emergencies Bill, which contains two provisions; the first requires a certain standard of medical equipment to be carried aboard aircraft and the second provides a Good Samaritan clause similar to that of the original Pursell Bill. The signs are that the passage of this legislation is being pursued aggressively, and therefore it now seems likely that it may become law, although it will be applicable only to aircraft registered in the United States.

In the absence at present anywhere in the world of Good Samaritan legislation the doctor is, therefore, in a position of being bound by that code of law which applies according to the circumstances in which he finds himself and the inherent changes of liability will, therefore, vary greatly and depend on many factors. This being so, he can act only with the best skill and care he can muster, and ultimately he may have to rely on help from his defence society. It has to be understood that there is no contractual obligation between such an organisation and its members automatically to undertake each case that is presented. The three defence societies in the United Kingdom have acquired an enviable reputation of standing by their members whenever there is a case that impugns a doctor's professional conduct. There is, however, a most important exception to this general rule because they specifically exclude from their cover any litigation in the United States resulting from a member's activities wherever these may have taken place. This being so, and despite the fact that I know of no case that has so far arisen in which a British doctor has been sued under United States jurisdiction for an act taking place in an aircraft, because of the defence societies' specific disclaimer in this particular respect the need for Good Samaritan legislation is clearly pressing.

Training of cabin staff

Naturally, it is true that if reasonable skill and competence are shown then regardless of where the act takes place there should be no case to answer, but this does not mean that there is nothing to fear. Such hazards as possible vexatious litigation—conditions as they obtain in the United States (and the exclusion that the defence societies exercise in respect of that country) and the uncertainty about jurisdiction that may well exist in international travel—must mean that doctors may be backward in coming forward when assistance is sought other than on board a British registered aircraft. Even here the matter may be complicated because circumstances—such as the patient being a United States citizen—may bring with it the right for a claim to be made other than in our own courts. Because of all these facts it is little wonder that opinion in most airline medical departments is that the best service to the sick or injured passenger can probably be achieved by greatly improved training of a smaller number of cabin staff, up to something approaching paramedic standards, to enable them competently to deal with a much greater range of inflight emergencies, which, interestingly enough, is what the authors of the original article suggested.[1] It is easy to argue for and against such a policy, but given the type of illness or accident that tends to occur during flight, the variable quality of the response that a call for assistance may sometimes evoke, and the reservations that some doctors feel in undertaking something that they believe might have unusual repercussions many are convinced that this is the logical step for airlines, and international carriers in particular, to take. Nevertheless, until this is achieved, and even after, the doctor who finds himself in this dilemma must decide what is the best course of action based on his own skill and judgment—taking into account any alternatives that may exist—and act in the best manner possible considering all the circumstances. No one can do more.

Reference

[1] Mills FJ, Harding RM. Medical emergencies in the air. I Incidence and legal aspects. *Br Med J* 1983;**286**:1131-2.