known to be capable of handling the expected numbers. Book them early, settle the venue of the dinner, and get an estimate of the cost per head. Wines form much of the cost and you can save a lot by buying the wine in bulk as soon as possible, to offset inevitable price rises in the year or two before the conference takes place. Any surplus wine can be sold at a profit after the event, so that this is a reasonable speculation.

Common sources of complaint are: too long an interval before dinner is served; slow service letting dinner get cold; not enough wine; inaudible after-dinner speeches. These difficulties arise from handling large numbers of guests. The pre-dinner interval should not be more than 45 minutes, but this time will be needed for the guests to arrive and sort themselves out, and to marshal top-table guests. Generous space should be allowed for foyer and cloakrooms, and plenty of extra cloakroom staff engaged. All wines, including drinks before dinner, should be included in the price of the ticket. It is courteous to meet top-table guests at the foyer and entertain them separately before dinner. It also ensures that they can be seated expeditiously in their proper places.

A big dinner demands a good toastmaster. His first duty will be to announce dinner. For very large numbers an individual seating plan is too laborious, but some sort of order must be imposed. One solution is to give out numbered cards on arrival, each matching one in the dining hall indicating a table or group of tables. The toastmaster can then invite the guests in to dinner by these numbers. Slow service and cold food are due to an over-ambitious menu with too many hot dishes. The first course, paté or hors d'oeuvres and a glass of sherry, can be on the table at the start. A hot soup can follow this, and then a cold main course with hot vegetables if desired, and a sweet and fruit to follow. A menu of this sort simplifies the choice of wine and lets the wine waiters concentrate on seeing that everyone is well served.

A short interval may be necessary between the end of dinner and the speeches. At a very large dinner it is unwise to announce this formally—it may be difficult to persuade the company to resume their seats. Speeches should be brief, clearly announced by the toastmaster, and audible throughout the hall. This means more than usual attention to the position of amplifiers throughout the hall. The toastmaster must be able to obtain silence for the speaker, who, in turn, may reasonably expect to be heard by everyone. The acoustic problems of large halls are often difficult and should not be left until the last minute. It is worth while spending extra money to get an expert to arrange this, rather than an enthusiastic amateur.

One last word. Of all the conference papers, the dinner menu —dog-eared, wine-stained, signed illegibly by old friends and new—remains the most durable souvenir. It should start the evening as a pretty thing.

Acknowledgments

The idea for these papers on how to organise an international medical meeting came from the happy association we had with the other members of the organising committee of the Joint Congress of the International Surgical Society and the International Cardiovascular Society held in Edinburgh in 1975 under the stimulating and provocative chairmanship of the late Sir John Bruce. We acknowledge the overall contributions made by Mr George A Hendry, the organising secretary of the Joint Congress; Mr William Reid, treasurer; Mr John McGhee, public relations officer of the City of Edinburgh; Mr Andrew Hay; Mr John Ward; Mr John Cook; and Miss Hannah Harkins.

For Debate . . .

Preventing deaths from malaria

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Summary and conclusions

To reduce the number of avoidable deaths from malaria in Britain the following five points are recommended.

Parliament should pass a Malaria Prevention Act that compels travel agents and airlines to give written and verbal advice on prevention and diagnosis of malaria to people travelling to countries where the disease occurs. To improve diagnostic and therapeutic efficiency for all diseases the Department of Health and Social Security should prepare a procedure manual for the NHS that gives guidance for doctors and other medical staff. Avoidable deaths from all diseases should be the subject of open inquiries at district medical committees, with recorded evidence. Failure to perform diagnostic tests such as blood films for malaria in cases of sickness in people returning from the tropics should automatically be considered negligent. Compensation should be offered by the State to the next of kin of people who have died because of medical negligence from malaria or other diseases.

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Introduction

Several people die from falciparum malaria in Britain every year. Most of these deaths are avoidable—delays in diagnosis or incorrect treatment are important contributory factors. The victims have usually been given inadequate advice about prevention and early diagnosis. Bruce-Chwatt *et al*[1] consider that protection from malaria infection is largely the responsibility of the individual concerned, whereas Maegraith and others think that the travel agents and airlines should do more to warn passengers.[2 3] I agree with the latter approach and recommend the following actions.

Prevention

Since airlines and travel agents do not come under the authority of the Department of Health and Social Security, I

recommend that Parliament, which has the statutory authority, should pass a Malaria Prevention Act[4] to reduce the number of avoidable deaths from malaria. The Act would be in two parts.

(1) Travel agents and all organisations that send people to the tropics should be compelled to give written and verbal advice about the risks of malaria in the countries being visited; the importance of taking a drug regularly as prophylaxis against malaria, together with names and dosages of suitable drugs; and the importance of obtaining a malaria smear and a consultation if symptoms develop on return. This detailed advice should be included in travel brochures.

(2) British airlines (and shipping companies) should be compelled to give detailed written and verbal information both before and during flights. A few hours before landing in a malarious area the cabin crew of the aeroplane should give advice on the risks of malaria and the importance of taking a prophylactic. They should offer to provide one of the drugs to passengers who have forgotten to get a supply. This verbal information should be supported by written instructions to be included on the aircraft procedure cards located in the back of the seat. Since the passengers are "captive" in the plane, they will almost certainly heed the advice. During a flight leaving a malarious area, verbal and written information should again be given to the travellers. They should be told that every year a few people die of malaria on return from the tropics because of a delay in diagnosis; that any symptoms may be due to malaria and should be reported to a doctor; and that they should tell the doctor that they have been to a malarious area, that they may have malaria, and that they have been advised to ask for an examination and blood film. The travellers should be advised to confide in another doctor immediately if the first does not comply with the request.

Airlines might complain that if they were forced to give this detailed advice their sales might drop. The answer is that the prevention of avoidable deaths should have precedence over profits. I believe, however, that if British airlines advertise that they protect their passengers' health in this way, then their sales would tend to increase in comparison with other airlines. Britain would be taking a lead and other airlines would probably follow suit.

PROPHYLAXIS

In areas where falciparum malaria is sensitive to chloroquine, *one* of the following drugs may be taken for prophylaxis (adult doses given): (*a*) chloroquine, 300 mg weekly; (*b*) Maloprim (pyrimethamine 12·5 mg and dapsone 100 mg), one tablet weekly; (*c*) proguanil, 100-200 mg daily. In areas where falciparum malaria is resistant to chloroquine the best drug is Fansidar (pyrimethamine 25 mg and sulfadoxine 500 mg), one tablet weekly.

Earlier diagnosis

Most deaths from malaria in Britain are due to a delay in diagnosis. Sometimes the victims think that they have influenza and delay consulting a doctor, or they are told by a doctor that they have influenza or a minor condition, even after informing him that they think that they might have malaria. In some tragic cases people have asked for a malaria smear and the doctors have refused to have the blood tested. In civilian medical practice the death rate from falciparum malaria is between 5 and 10%, whereas in military practice, where diagnostic acumen is higher, it is only about 0·3%. This confirms that many deaths can be prevented by earlier diagnosis.

An NHS procedure manual should be sent to all doctors by the Department of Health after consultation with experts. It should give guidelines on diagnosis and management of all diseases and medical problems, should be printed on standard-sized paper (A4), and kept in ring-binders to be updated when necessary. The manual should direct that thick and thin blood films should be examined in all cases of sickness after return from a malarious area, even if fever is not present. The first doctor who sees the patient should prepare the blood slide himself and examine it immediately. Laboratory facilities should be available at all times to help the doctor in performing and reading the malaria blood-film. There should be no delay, even if it is a Sunday or holiday. Repeated slides should be made if nothing is detected on the first slide and the patient is still unwell.

Treatment

Although delay in diagnosis is the most common cause of avoidable deaths from malaria, incorrect treatment is the other cause. Some patients with falciparum malaria die because they are given treatment by mouth rather than by intravenous infusion when they are admitted to hospital; because they have a drug-resistant malaria and are given chloroquine rather than quinine; or because dehydration is wrongly diagnosed on admission and they receive excessive quantities of intravenous fluid, which causes pulmonary and cerebral oedema and death.

Severe falciparum malaria is a medical emergency requiring the attention of the whole medical team. A consultant should be instantly available to supervise examination and management of patients with severe malaria and other important diseases. A consultant must be available when the patient is admitted, and the consultant, registrar, and houseman should preferably be in the ward's emergency department when the patient arrives. Doctors, like airline pilots, have a critical job, in which incorrect action may cause death. Aeroplanes are flown by two or three professionals working in unison, and a similar approach should be adopted in emergency medicine.

The most effective drug in severe falciparum malaria is quinine by continuous intravenous infusion. Nevertheless, overdose may be a problem and the optimum daily dose is 10-20 mg/kg, usually given as two separate infusions of 5-10 mg/kg over four hours each. Patients with falciparum malaria in coma usually have cerebral oedema, and pulmonary oedema often readily occurs. These patients are overhydrated, rather than dehydrated, and large volumes of fluid may be fatal. The intravenous fluid should be given mainly as a vehicle for the quinine. Insensible loss due to perspiration is often balanced by the catabolic production of water. Thus the optimal amount of intravenous fluid daily may be no more than about 1000 ml, which is often balanced by a satisfactory urine output of about 1000 ml.

Official inquiries into avoidable deaths

I consider that the present coroner service is not sufficiently comprehensive. One of the functions of the coroner is to prepare recommendations to prevent deaths from similar causes. I recommend that all evidence to the coroner should be recorded so that it may be made available if other legal processes arise. At present people may give false or conflicting evidence to coroners without action being taken.

A machinery should be set up whereby all avoidable deaths are formally discussed at meetings of district medical committees. Recorded evidence should be taken from all relevant witnesses. The prime function of these inquiries would be to develop procedures for preventing similar deaths in the future.

Compensation

I think that when certain types of fatal mistakes are made in any health service a democratic society should offer compensation rather than await the distressful and lengthy process of litigation. No-fault compensation is available in Sweden and

New Zealand, and this subject has been recently discussed in an editorial,[5] where it was noted that, for reasons that are far from clearly expressed, the recent government committee shied away from any no-fault scheme for compensation for medical accidents. I think that failing to do a malaria smear for someone with symptoms who has returned from a malarious area should automatically be considered negligent and result in the offer of compensation if death occurs.

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Hospital Topics

Isolating patients in hospital to control infection*

Part V—An isolation system

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There are many differences in the degree and methods of isolation ideally suited to a wide variety of communicable diseases. At the same time, it is impracticable to have an infinite variety of isolation procedures; some form of isolation category or grading is therefore useful. For each patient, the relative risks to the patient and to others should be assessed and the appropriate type of isolation determined. The four types of isolation suggested by Sherris (unpublished) have been used in the isolation system described below, which is based on a system devised for a district general hospital.[1 2] High-security isolation is most safely provided in a separate unit.

Standard isolation

Conditions needing standard isolation—Most bacterial and viral infections need standard isolation; these include: wounds, burns, bedsores, dermatitis infected with *Streptococcus pyogenes* or with extensive sepsis; other infections by *Str pyogenes* including sore throat; infection by multiresistant *Staphylococcus aureus* (but strict isolation for *Staph aureus* enteritis and pneumonia); cutaneous anthrax; bacterial or viral meningitis; open tuberculosis (except urinary); and common infectious diseases.

Requirements—A single room, preferably with gowning lobby and wash basin, is needed. The room should have: ventilation to the exterior or filtered recirculation but not to adjacent patient areas; its own toilet or access to bedpan steriliser without conveyance through patient areas; gowns and gloves available for staff and visitors; and facilities for disposing or disinfecting articles used in the room, preferably with access that is not through ward areas.

Operational instructions—The patient should be confined to his room with the doors kept closed. Gowns or plastic aprons should be worn by all persons in contact with the patient; gloves should be worn whenever contact with infected tissues or articles is possible; hands should be washed on leaving the room; and articles and bedpans used in room should be disinfected, and discarded or wrapped and sent to the central sterile supplies department (CSSD) for sterilisation.

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Stool-urine-needle isolation

Infections requiring stool-urine-needle isolation are those known to be transmissible primarily by exposure to stool or urinary organisms or by contaminated needles, syringes, and blood. These include gastrointestinal infections in children and adults, including diarrhoeas of unknown cause (but neonates and people with staphylococcal enteritis need strict isolation); urinary-tract tuberculosis; viral hepatitis (all jaundice unless proved obstructive or haemolytic); and acute poliomyelitis.

Requirements. These are the same as for standard isolation.

Operational instructions—The patient must be confined to his room, with the doors kept closed. Everyone in contact with the patient or dealing with his excreta must wear gowns or plastic aprons and wash their hands on leaving the room; they should wear gloves for all procedures that involve touching the patient or objects possibly contaminated by excreta or blood. Articles used in the room should be discarded into closed receptacles and disinfected or wrapped for return to the CSSD.

Strict isolation

Conditions requiring strict isolation are the highly infective and very serious diseases and those with extensive superficial sepsis, including extensive vaccinia; pulmonary anthrax;