Sadly, death after shipwreck is still a danger. People are lost when ships sink, yachtsmen die when their boats capsize, and deep-sea fishing remains among the most hazardous of all occupations, more so than mining. At best it can be said that problems have been defined, knowledge gained, and useful improvements made. Those who have given their time and energy (frequently at the expense of their own research and to the detriment of their careers) without thought of reward or thanks, often at great discomfort, sometimes risking their lives in icy water and in Arctic or Atlantic gales, could hope for no more.

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RCP appeal

In a time of inflation the very number of cries for help from our institutions, historic houses, and cathedrals might make doctors reluctant even to consider supporting another appeal. Yet they would be wrong to ignore the claims on their generosity of the Royal College of Physicians of London, which last week launched an appeal for £1½ million. Whether apparently or in reality, the move to its new London building in Regent's Park twelve years ago brought winds of change. Taking care not to forget the provinces, the college started a vigorous postgraduate education programme, with refresher courses, teach-ins, clinicopathological conferences, and specialised meetings. It introduced new features such as guidance on the ethics of human experimentation, language scholarships (particularly relevant to its role in advising the Government on EEC problems), and a faculty of community medicine. It continued its traditional concern for the public health with reports on smoking, rehabilitation after stroke and myocardial infarction, and fluoridation of water supplies. And, finally, the MRCP examination changed so that, rightly or wrongly, candidates came to feel that, though the test was still formidable, it was fairer than its reputation had led them to believe.

The college has now run out of space to house all these activities, let alone to do justice to new projects such as the proposed medical services study unit. Besides enlarging its building, it wants to play a full part in developing industrial medicine in Britain, and to expand its representation in Europe and overseas. All this will cost a lot, and, even though the college has already received gifts or promises of support of over £500 000, the case for contributions by individual doctors is strong. Our ancestors did not stop building cathedrals in times of adversity, and we, who will leave the future with fewer tangible benefits, should follow their example.

Caring for vagrants

CHAR, a charitable organisation concerned with single homeless people in London, has been trying to organise primary medical care for them in the West End, but its plans are threatened by lack of money. In Edinburgh, by contrast, the Lothian Health Board is arranging to provide such facilities for the 1000 or so inhabitants of the city's lodging houses. Why, it may be asked, if there is a fully comprehensive general-practitioner service under the NHS, should such special facilities be necessary? The answer is to be found in the organisation of our primary care system and in its conventions.

General-practitioner services are made available to the public through the NHS on the assumption that the user has a home—thus permitting continuity of medical care. This concept is not affected by the use of rotas and relief services for night and weekend cover.[1] A patient's short-term absence from home on holiday or otherwise is adequately covered by the system of temporary registration. In calculating what the GP should be paid the profession, the Government, and the Review Body estimate the work load created by an "average patient." New patients tend to consult more frequently,[2] so that any increase in patient turnover creates extra work. As a body, GPs have accepted the responsibility for providing care for everybody who lives in Britain. Each acknowledges that there are a few burdensome patients in the community who have to be shared out among the profession; each doctor has his own (albeit self-selected) quota of such patients.

In several ways vagrants pose special problems for which the general-practitioner services in the NHS are not equipped. Firstly, they have no home and cannot therefore register permanently with one doctor in the usual way. Secondly, they require more than average medical care: in one study[3] less than half were free from chronic disease: 17% had chronic bronchitis, 10% pulmonary tuberculosis, and 28% suffered from either epilepsy or a psychiatric disorder.

Ideally, perhaps, primary care for vagrants should include a screening service to search for and detect serious illness. Nevertheless, most probably if such a service was provided by GPs the tests would be repeated as the vagrants wander the country. The heavy demand that such individuals can put on the hospital services has already been calculated—one Scottish tramp cost the NHS over £10 000 in the course of a few years.[4] Moreover, the presence of vagrants in the waiting room may upset other patients. For all these reasons many practitioners are unwilling to include homeless people on their list as either permanent or temporary patients.

The problem is mainly confined to the centres of our large towns (districts in which general-practitioner services anyway tend to be atypical[5]). A good case may be made for providing special primary care services for these patients, but in times of financial constraints few area health authorities are likely

to have new money to set up such services—and few will be willing to deprive existing hospital and general-practitioner services of already scarce resources.

Special walk-in clinics for vagrants would offer many advantages, not least the ability of the doctors, nurses, social workers, and others working there to acquire skill with their problems. Meanwhile those few GPs who are willing to accept vagrants as patients, or who provide special facilities, will have to continue to share the burden with the already overcrowded accident and emergency departments, where the cost of these services may well be greater than that of special clinics.

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Pathogenesis of the tapeworm anaemia

In Finland *Diphyllobothrium latum*, the fish tapeworm, causes a megaloblastic anaemia by competing with its host for dietary vitamin B_{12}. For some reason still unknown the anaemia is almost entirely confined to that country, for the tapeworm is found as a parasite around other freshwater lakes in Europe, Japan, and North America.

One possibility is that the anaemia is a consequence of the Finnish habit of eating raw salted, smoked, or cured freshwater fish, often inadequately prepared. Small-scale domestic smoking of fish is very popular in Finland, and the exposure to temperatures of 56°C or more for five minutes, which is necessary to kill the contained larvae, is not always achieved: instructions given with commercially available smoke boxes are often inadequate. There is also evidence that different species of *D latum* have differing B_{12} requirements. The North American variety takes up only 6·6% of an oral dose of 0·6 μg in comparison of an uptake of at least 40% by the Finnish variety of the worm.[1]

In the heavily infested area of East Finland 27% of the population are tapeworm carriers; yet most are apparently healthy. In a group of 155 carriers studied by Pavla[2] only 9% had signs of megaloblastic haemopoiesis and only 2% had overt anaemia. However, 92% of all carriers have vitamin B_{12} malabsorption as evidenced by an abnormal Schilling test, and at least 75% have serum B_{12} levels of less than 150 ng/l.[3] The reason that only one in 50 carriers develops anaemia is probably that stores become sufficiently depleted to impair erythropoiesis only in the presence of several adverse factors.

Dietary intake of B_{12} may be one such factor. By supplementing the diet of anaemic patients with additional oral B_{12} Bonsdorff and Gordin[4] found they could induce a reticulocytosis in five out of eight cases. Conversely, even after expulsion of the worm a reticulocytosis can be prevented by withholding animal protein from the diet. Reduction in the protein (and therefore B_{12}) content of the diet in the Finnish population in 1942 resulted in a twofold increase in the incidence of anaemic carriers.[5]

Nyberg[6] showed that worms in asymptomatic carriers take up less of an oral dose of B_{12} than those in anaemic patients. He gave his patients a 1·0 μg dose of labelled vitamin B_{12} followed 24 hours later by 3-4 g of male-fern extract. Only 50% of the dose was recoverable from parasites in non-anaemic carriers in comparison with 83% in those from anaemic patients. Later laboratory studies[7] showed that the parasite can take up both free B_{12} and that bound to intrinsic factor. Bonsdorff[8] found by intestinal intubation that anaemic patients harboured their tapeworms more proximally in the small bowel, where he suggested they were more effective competitors for dietary B_{12}.

The part played by the stomach has been a centre of controversy for several years. Siurala[9] found evidence of atrophic gastritis in 30 out of 35 patients with tapeworm anaemia and there was no real improvement after treatment. Salokannel[10] found that only 13·5% of anaemic carriers secreted free acid after Histalog stimulation, in comparison with 64% of age-matched asymptomatic carriers, and that 72% of anaemic patients had impaired secretion of intrinsic factor, whereas the other carriers did not differ significantly from a non-infested group. Again, however, secretion of intrinsic factor did not improve after expulsion of the worm over a two-year follow-up period. Blocking antibodies to intrinsic factor were found in 9% of patients with tapeworm anaemia.

Since pernicious anaemia and the tapeworm anaemia present in an identical fashion clinically and occur in similar age groups, Salokannel has emphasised the difficulty that may arise in making an accurate diagnosis in a heavily infested area. As yet, no authenticated case of tapeworm anaemia has been reported in Britain. This form of megaloblastic anaemia shows, however, that the pathogenesis of a nutritional deficiency in an individual patient may be extremely complex even when the cause is superficially simple. This may well be the case, too, in the pathogenesis of severe B_{12} deficiency in circumstances more common in Britain such as in pernicious anaemia, veganism, and in patients with the intestinal stagnant loop syndrome.

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Neurological outcome in survivors of out-of-hospital cardiac arrest

Resuscitation of patients having a cardiac arrest in hospital has long been a routine affair. Yet short-term survivors who die later before leaving hospital still outnumber those who are eventually discharged.[1] Those returning home have constituted as few as 8%-19% of those resuscitated in series of 368 and 1204 patients.[2 3] Despite the re-establishment of an adequate circulation coma supervenes in just under half the patients.[1] Asystolic arrest is less often and less easily reversed