about the infectivity of AIDS and HTLV-III related conditions, it is important that all medical writing is strictly factual, so that statements are not taken out of context and misquoted by the mass media.

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Avoiding AIDS with autologous transfusions

SIR,—In view of the many reports in the popular and medical press[1-3] (12 January, p 151; 23 February, p 583) about the increase in the incidence of acquired immune deficiency syndrome (AIDS) and the problems associated with it, it is perhaps surprising that autologous blood transfusion is not carried out more often. Autologous blood donation before elective surgery is safe with few if any contraindications except anaemia.[4]

Autologous transfusion is not new and has been used by cardiothoracic surgeons[5] and gynaecologists[6] for many years. Orthopaedic use of autologous transfusion has been reported in paediatric operations[7] and more recently in total hip replacements.[8]

We have recently started a programme of autologous transfusion for routine operations likely to need blood. The patients attend hospital one to two weeks before operation and donate a unit of blood. This is stored in a separate fridge from normal cross matched blood, and the procedure is repeated when the patient reattends hospital for admission the day before elective surgery. In the first three patients undergoing total hip replacements with this programme the haemoglobin dropped by a mean of 1·3 g/dl before operation. The two units of autologous blood were given intraoperatively and immediately after operation if necessary. Crystalloid solution was infused intravenously until the patient could tolerate oral fluids the next day. At the time of discharge at two weeks the patients' haemoglobin values ranged from 10·9 to 21·1 g/dl.

Autologous transfusion not only relieves the strain on the transfusion service and saves on already stretched finances but also saves time in cross matching and provides reassurance to patients that they will not contract AIDS, hepatitis, or any other transfusion related disorder, including transfusion reactions.

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Stagnation and despair in medical research

SIR,—I am more hopeful than those who have declared medical research to be the victim of stagnation and despair. Citation indices for 1973 showed clinical medicine as the only subject for which Britain was the lead country (jointly with USA).[1] Between 1972 and 1980 Britain held her own with the world in publications in clinical medicine,[2] and almost half of the 18 subjects identified as being stronger in the UK than elsewhere were clinical.[3] There is, however, some confusion about what is meant by clinical research. For some this includes all research done by clinicians (including laboratory experiments in vitro and in animals) or all that is done in clinical departments (including activities of basic scientists). Others include all research that uses material from patients or that is related to disease—however remotely and even if carried out in basic science laboratories. This emphasis on laboratory based research overlooks the most promising growth area: the assessment of technologies in hospital.

The waste of resources in acute hospitals due to the inappropriate use of technological procedures is a matter of increasing concern. The main impediment to the more rational application of medical technologies is ignorance —of the relative effectiveness of alternative methods of management and of the clinical circumstances that justify their use.[4] Although such research needs to go beyond simple tests of efficacy and clinical trials to assessment of effectiveness and to economic appraisal, clinicians are absolutely essential for such studies. If the NHS were to recognise the urgency of its need for such studies to deploy its resources wisely, and the University Grants Committee and Medical Research Council were to recognise the opportunity that this offers, this could be the salvation of clinical research.

The health departments should seek to influence both UGC and MRC to expand this support for health service research. But this labour intensive activity requires that the NHS itself maintains sufficient staff in teaching hospitals and also accords appropriate clinical grading to research clinicians provided by the UGC, MRC, or charities for such work. The royal colleges need to ensure that their training programmes do not discourage clinical research of this practical kind. Meanwhile the universities should insist that medical students witness evaluations of diagnostic and therapeutic procedures and that they learn by example that prestige is earned by limited and appropriate rather than by profligate deployment of technology. Britain is better placed than most countries to carry out health services research of this kind. Grasping this opportunity could both revive academic medicine and save the NHS.

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SIR,—Professor C J Dickinson's leading article (2 February, p 337) highlights the financial stringencies currently afflicting medical research in Britain. Nowhere is this more pertinent than in respiratory medicine. Respiratory disorders are the second commonest cause of deaths in Britain and of loss of time from work. They have been calculated to account for 14% of the social and economic "burden" of disease.[1] Despite their importance in the community, however, research into these diseases receives less than 0·9% of the Medical Research Council's funds[2] and 0·5% of funds from medical charities.[3]

In an attempt at self help a group of respiratory specialists have recently founded a new charity, the British Lung Foundation.[4] This charity plans to raise money from commercial and public sources specifically to support research in respiratory medicine. It will have close links with related disease oriented charities (notably for cystic fibrosis, asthma, and cancer) but it aims to fund a wide variety of projects and people working on basic, applied, and other respiratory problems. We hope that despite the continuing economic blizzard this charity may be supported and prosper. It seems that commitment by industry and the public as a whole might be the only hope for maintaining, let alone expanding, medical research in the late 1980s.

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SIR,—Professor C J Dickinson's leading article (2 February) on the failure of the present government to maintain scientific research either through our universities or through the research councils should be mandatory reading for government ministers in the Treasury, the Department of Health and Social Security, the Department of Trade and Industry as well as the so called Department of Education and Science.

There is, however, a further economic reason why failure to sustain medical research in the UK should worry so many government departments. The transnational pharmaceutical industry invests in research and development because of the availability of first class British graduates in chemistry, pharmacology, pharmacy, and medicine. Even more importantly, research based companies are attracted to the UK by the possibilities of collaborating with clinical and preclinical academic departments of outstanding calibre and covering a wide range of disciplines. If the healthy balance of trade in pharmaceuticals and the innovative success of our own drug industry are to continue into the next century, we need a coherent policy to sustain the country's scientific