Letter from . . . South Australia

Institute of Medical and Veterinary Science and admission multiphasic screening

PHILIP RHODES

British Medical Journal, 1976, 2, 804-805

The pathology services of South Australia are essentially in the hands of the Institute of Medical and Veterinary Science and also of a private firm. Both are highly efficient and work in amity with each other. Indeed, the private pathologists have often worked previously for the IMVS. Each group is largely centralised, and the investigations are done in Adelaide. But this State has a wide-flung population so that there are outstations for collecting specimens with fast delivery to the centre. The white vans, labelled South Australia, Pathology Collection Service, are to be seen scuttling all over the city. In addition, the IMVS has small satellite laboratories in the larger centres, some staffed by a pathologist and some with non-medical technologists and technicians to provide a rapid service for simpler investigations. Some of these places are connected to the central main laboratory by Telex, and two major hospitals have landlines connected to the central computer so that results may be flashed quickly to those who have made requests. It is an amazing organisation, covering nearly 1.25m people, stretched out over a geographical area about the size of Britain. Wherever a pathology service is needed in the State the IMVS provides it. Its interest for others is that it is comprehensive and centralised in a manner suited to the special conditions.

The IMVS was set up by State Government Act of Parliament in 1937. Made autonomous under its own council, the chief officers are a director and deputy director. The Act of 1937 has been modified, and is now being reviewed again, but essentially the IMVS is required to provide human and veterinary pathological services and pathology for the government hospitals without charge, and it is expected to conduct research and provide facilities for the University of Adelaide and that of Flinders, which was recently founded. It is interesting that because of the paramount importance of livestock to the economy one member of the Council must be "a person whose business is or includes the raising of stock and who shall be appointed by the Governor," and another must be "a veterinary officer of the Public Service of the State nominated by the Minister of Agriculture."

The main building of the IMVS is large and is within the curtilage of the Royal Adelaide Hospital, which is a major consumer of pathological services for it was the first hospital and for a long time the only one. Despite the arrival of the Queen Elizabeth Hospital, the Flinders Medical Centre and Modbury Hospital, and others outside Adelaide, the IMVS has retained all the more esoteric pathology centrally, though inevitably there is some growth of services peripherally. Everywhere there

is a willingness to prevent duplication of expensive pathological tests, and the IMVS is most often the place to house them.

For someone reared in the NHS the buildings and equipment of the IMVS are quite breathtaking in their apparent lavishness, but that is only by comparison. It is perhaps the NHS that should come up to these excellent standards. A recent annual report to the Minister of Health for South Australia shows departments of administration and finance, clinical chemistry, clinical microbiology, haematology, histopathology, electron microscopy, nuclear medicine, veterinary pathology, animal science, virology, laboratory equipment and stores, instrument services, library, and a transfusion service. And there is forensic pathology too. It is quite a complex. There are 50 medically qualified staff out of a total of 740 that includes a high proportion of scientific officers, all with degrees or higher technical diplomas, and of course there are many others employed in all the supporting work of a big enterprise.

The number of tests done a year is approaching 3m, and in almost all areas there is an annual increase, varying between about 7% and 42%. About 1.7m tests are done in clinical chemistry, 370 000 in haematology, 250 000 in clinical microbiology, and 130 000 in transfusions. Most of these are done free of charge for Government hospitals but about 628 000 are done for paying patients. For the tests done free of charge there is reimbursement from Medibank. This Government method of financing the health services is being altered again, however, and no one yet knows officially what is to happen. A method of procedure had just been worked out, and Medibank was settling down a bit, but now it is back in the melting pot.

Admission multiphasic screening

There is an impressive list of research papers coming from the staff of the IMVS and their collaborators. But there is one in particular which should be more widely known. The work was funded by the National Health and Medical Research Council and was conducted by T C Burbridge, Fay Edwards, and R G Edwards of the IMVS and Margaret Atkinson of the department of economics of the University of Adelaide.¹ It was designed to test whether multiphasic screening of patients on admission to hospital made any difference to their care. The system was abbreviated, inevitably, to AMS (admission multiphasic screening). A vast battery of tests was done on 500 newly admitted patients, and the results were sent to the doctors. Test results on a further 500 were held in the laboratory and not communicated to the doctors, and no tests were done on another 500. The groups were comparable and were then carefully followed up to see the outcome of the clinical event.

The investigators reported "A comparison between the progress for 500 test patients screened on admission to hospital and that for (2×500) control patients failed to show any consistent advantage due to AMS. The AMS has no significant effect on mortality or length of hospital stay. The extent of

disability and distress inpatients suffered was also unaffected. The duration of all monitored clinical signs was unchanged. . . . Medical opinion on inpatients' progress was not altered by AMS." "... admission screening had no impact on the speed with which treatment was begun." It was found that 25% more AMS patients than controls had a consultation for a second clinical opinion. Costing showed that AMS increased hospital expenditure by 5% and increased laboratory costs by 64%. This was partly because the doctors who had the benefit of AMS subsequently asked for more tests on their patients. Altogether AMS increased investigations by 78%. The doctors who did not get AMS results asked for only one-third of the tests that their colleagues subjected to AMS did. As is the way in scientific papers, the authors underplay their conclusions by saying that it would seem "unreasonable to advocate the introduction of this kind of hospital multiphasic screening procedure into the current teaching hospital framework. It is hoped that these findings will now foster future work on the evaluation of discretionary investigation."

I like that understatement and appreciate it because I know two of the authors, but it should be screamed from the housetops. It has enormous relevance everywhere in the developed world. It shows a most rare common-sense scepticism in the very people who might be expected to build empires, yet they look at part of that empire and say it is of no use for this purpose. And not only

is it no use: it seems to generate peculiar anxious behaviour in the doctors actually at the bedside. The AMS seems to have made them unsure, so that they needed further bolstering from the laboratory to treat their own anxiety. And they consulted colleagues more often. All of us at the bedside know the feeling—the wanting to explain everything and not miss anything. The more information you have the more you want, but it may have no relevance for the patient.

Of course, the trial took about two to three years and it entailed much hard work but the outcome was well worthwhile. It stopped the advance of some potential nonsense. So much in medicine today needs this kind of investigation. In many areas we are in a self-perpetuating roundelay, churning out the old refrains, and not knowing how to stop them. What we need so badly are a few brakes firmly applied to both old and new projects which may be trivial, teetering, and not of the least value, either in non-financial or financial terms. But it takes courage to look at our practices and say that they are useless and even unproductive. So hurrah for the IMVS, for they have shown the way!

Reference

Durbridge, T C, *et al*, *Medical Journal of Australia*, 1976, 1, 703.

What I would say to the Royal Commission

Community medicine attitudes

N S GALBRAITH

British Medical Journal, 1976, 2, 805-806

One of the main problems of the reorganised NHS is the allocation of resources between prevention and the more immediate and pressing needs of cure and care. Medicine had little influence on the health of the population until this generation, but, despite this, the NHS has been designed as a service for the sick, particularly for the acute sick and particularly for their hospital treatment and care. Furthermore, much modern curative medicine has been so successful that the public now expects medicine to find a "cure" for every problem. It is partly these unrealistic expectations and partly the sickness orientation of the NHS that are leading us in what is likely to be a vain quest for health by developing more and more advanced hospital care provided by more and more highly trained medical and technical staff.

The recent document, *Prevention and Health; Everybody's Business*,¹ has pointed out the need for more emphasis on prevention, but such a change of emphasis needs a change of attitude, both medical and lay, as well as a reallocation of

resources. The starting point would seem to be, therefore, education: on the value and limitations of medical care; on the use of medical services; and on the prospects for prevention. This document is a welcome beginning, which I hope the Royal Commission will wish to see extended by a greatly increased commitment to education for health.

Community medicine

Community medicine has a specific responsibility for the health of the population, and for preventing disease, as well as for planning services for the sick and handicapped and is, therefore, in a key position to study and evaluate the distribution of resources.

In the metamorphosis from medical officers of health to community physicians, however, the doctors working in the specialty lost the administrative and statistical support they need to carry out their work. Furthermore, they acquired management tasks in the new NHS which have eclipsed their preventive tasks, so much so that the specialty is now seen as "management" and has been included by the DHSS in the management standstill and threatened with a 5-10% reduction in staffing. There can be little future for prevention if the main practitioners are working full time in management, if their support is limited to secretarial staff, and if their establishment is frozen and likely to be reduced. The Royal Commission should review the organisation of community medicine.

Department of Community Medicine, City and East London Area Health Authority (Teaching), Addison House, 32-43 Chart St, London N1 6EF

N S GALBRAITH, MB, FFCM, area medical officer