defined where the population of points was densest to the very sparsely populated area concerned. A further test was obviously required: the triiodothyronine (T3) level. The T3—Thyopac-3 pairs plotted on a T3 versus Thyopac-3 map fell in each case clearly in the euthyroid region, though again some extrapolation was necessary because of the high Thyopac-3 values. The resolution of the difficulty here reflects the well-known superiority of the level of T3 (which should be related correctly in some manner to Thyopac-3 or TBG for maximum discrimination) over that of T4 as a discriminator of high thyroid hormone output states. Only one of the sets of results seems likely to have been caused by familial high TBG levels; the others were caused by identifiable factors (pregnancy or oestrogen administration).

RICHARD MARDELL

Wessex Regional Department of
Nuclear Medicine,
Southampton General Hospital,
Southampton

Localised airway obstruction

SIR,—Your leading article entitled "Localised airway obstruction" (12 March, p 669) should strictly have been called "Upper airway obstruction" in accordance with established usage and as shown by Harrison, whom you quote.¹ The use of the term "localised airway obstruction" should be restricted to describe an obstruction in an airway at any level distal to the carina. Thus the term implies that as well as the localised obstruction, causing localised reduction in airflow, there is also some other airway without a reduced airflow. This situation is most commonly encountered in carcinoma of the bronchus.

Since generalised airways obstruction is accepted as the greatest single cause of post-operative cardiopulmonary complications in surgery for carcinoma of the bronchus the assessment of the functional state of the lungs prior to thoracotomy in this condition resolves into displaying whether or not there is significant generalised airways obstruction attributable to bronchitis as well as the localised airway obstruction due to the tumour. The situation was first put in those terms in 1964 by Simonsson and Malmberg,² and investigations since then have been directed at improving methods of discriminating between the contributions to lung dysfunction of the two disease processes.

P LOCKWOOD

Respiratory Physiology Department,
Harefield Hospital,
Middlesex

¹ Harrison, B D W, *Quarterly Journal of Medicine*, 1976, 45, 625.

² Simonsson, B G, and Malmberg, R, *Thorax*, 1964, 19, 416.

Prevention priorities

SIR,—Your leading article (16 April, p 989) supports the false hope of the House of Commons Expenditure Committee that "preventive medicine might save money." Surely "investment in prevention" will never "pay off in financial terms"—not even in "15 or 20 years."

It is likely that man will always die sometime, and if in old age the more will he be subject to illness, the more drugs will he

consume, and the more appliances will he require, and time spent in a long-stay geriatric ward will cost more than a pneumonectomy.

Prevention certainly, and the necessary finance must be found, for we are a caring society, but in the interest of its members in 20 years' time the BMA should warn MPs now that adequate health care of an older population will cost more. The Government will also need to finance more pensions⁷

RONALD SAVIDGE

Woodbridge, Suffolk

Breast size and cancer

SIR,—We were most interested to read the letter from Professor B N Catchpole (19 March, p 776) indicating the present lack of information on breast volume in relation to cancer.

As part of a study on breast carcinoma we have been recording breast volume and computed tumour volume,¹ in all stage I-III (TNM classification) patients undergoing mastectomy. Our present results, from 14 cases, show a breast volume range of 200-1150 (mean 562) cm³, a tumour volume range of 0.36-23.4 (mean 7.95) cm³, and a tumour : breast volume ratio, expressed as a percentage, of 0.08-6.78 (mean 2.18).

There has been no evidence so far of a correlation between any of the values recorded, the clinical stage, or the aggressiveness of the tumour as assessed by the percentage lymph node involvement by metastases. It remains to be seen whether long-term studies will reveal breast volume to be of importance in the eventual outcome of the disease.

ALISTAIR J ROBERTSON

J CLARK

A W HALL

J SWANSON BECK

A CUSCHIERI

Departments of Pathology and Surgery,
Ninewells Hospital and Medical School,
Dundee

¹ Pathology Working Group, Breast Cancer Task Force, *American Journal of Clinical Pathology*, 1973, 60, 789.

The bedpan round

SIR,—With Telstar in the sky the wasteful manner in which nurse manpower is deployed in the wards of Britain's nationalised hospitals is surely a blot on management. In an age when children are carrying goldfish swimming in water in polythene bags nurses in the wards of Britain's nationalised hospitals are being made to use metal bedpans weighing 4 lb each to transport a few ounces of bulk or liquid excreta in a manner which no employee of a firm in industry would tolerate.

This is not all. The unhygienic traditional manner in which bedpans are stored in between use in ward sluices is still in use. Because these bedpans after use cannot be guaranteed to have been made bacteria-free before being placed for use between the sheets of other patients it does not require much imagination to conclude that the procedure provides a channel whereby infection is transferred from one patient to another.

In no other situation would taxpayers be content to foot the bill for the increasing incidence of postoperative cross-infection

which is not only causing pain and distress to patients and their relatives but is responsible for the prolonged use of hospital beds, the extra time spent on care by medical men, nurses, and auxiliary staff, as well as the extra cost of hospital supplies.

In the year 1961, when I first had the idea of introducing a polypropylene bedpan with a detachable polythene liner which would take the place of the bedpan, I discussed the matter with the matrons of the main London hospitals. They all said they would never allow such a thing as bedside storage of bedpans. These inflexible attitudes have persisted and have led to all of the costly new hospitals being provided with ward sluices which are equipped with the old-fashioned metal bedpans weighing 4 lb, metal racks for storing them in between use, as well as bedpan washers and machines for macerating papier maché bedpan inserts, both of which use millions of gallons of water as well as thousands of pounds worth of electricity every day in the nationalised hospitals.

I wonder if your readers will think as I do that innovators have been under a delusion in thinking they would get any encouragement to invent new equipment and methods which could bring increased productivity, reduce unpleasantness, and obviate the danger of cross-infection for both nurses and patients.

E M GRANT

Albury, Surrey

Colour blindness and arithmetic

SIR,—I recently saw a case which I thought would be of interest to many of your readers. A bright young boy of 6 was found to be backward at arithmetic. The headmaster of the school explained to the parents that the system that they were using to teach the children was the Fletcher system, which uses colours, and he wondered whether the boy had a colour vision defect. On examination I confirmed that he was incompletely red/green blind; I also got a family history that he had an uncle with the same complaint.

Various authorities give different figures for the incidence of colour blindness, but I would say that the most generally accepted one is that 8% of males and 2% of females do have some form of inherited colour defect. If, therefore, a system like this is going to be used widely to teach arithmetic to youngsters then 5% of them are going to be backward through no fault of their own. I wrote to the specialist in community medicine drawing his attention to this point and had a most helpful letter in return. He is certainly taking action at a local level, but I thought that the issue raised was of such importance that it might be as well if more of my colleagues knew of this problem.

L H G MOORE

Dudley, W Midlands

Diet and coronary heart disease

SIR,—Professor A G Shaper and Miss Jean W Marr (2 April, p 867) have recommended a dietary change to postpone coronary heart disease in the British community. They recommend reduced intakes of foods high in saturated fats and replacement with foods relatively high in polyunsaturated fats. These