

## LETTERS

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**Note to authors of letters:** Please note that all letters submitted for publication should be typed with *double spacing*. Failure to comply with this may lead to delay in publication.

### Cancer scare in general practice

Sir,  
An inhabitant of the Teleborg district of Växjö, Sweden, noticed a high mortality rate from cancer among her neighbours. In 1990 she presented her district physician with a list of nine people, born between 1935 and 1948, who had died from cancer in the previous three years. Although the people on the list had died of several different forms of cancer, and we as district physicians at the health centre had not noticed any increased mortality or morbidity from cancer, this was nevertheless a good reason for a closer examination of the cancer statistics for the district.

The regional cancer registry in Lund was asked to produce a list of the people from the district who had been diagnosed as having malignant tumours in the 10 year period 1980–89. From Statistics Sweden we obtained demographic details for the middle of this period — on 31 December 1984 there were 8908 inhabitants in the district. The total number of newly diagnosed cases of cancer per 100 000 Swedes, classified according to their age and sex at diagnosis was obtained from the National Board of Health and Welfare. The mean values for cancer in-

cidence for 1984 and 1985 were used to calculate the expected number of cancer cases over the 10 year period for men and women in five year age groups from 0–4 years to 85+ years. The standardized morbidity ratio was calculated by dividing the observed number by the expected number. The 95% confidence interval was calculated with the aid of exact values for the observed number of cases, taken from Poisson distribution tables.<sup>1</sup>

Over the 10 year period 1980–89 there were 151 cases of cancer (95% confidence interval 127.9 to 177.1) in the district compared with the expected 142.5 (Table 1). Among the men there were slightly fewer cases than expected, while among the women the number of cases was higher than expected. None of these differences, however, was statistically significant. Only for women aged 65 years and over was a significantly increased morbidity from cancer observed. Of these 32 women, nine lived in an old people's home, and eight of these were aged 80 years or more at the time of diagnosis.

This study gave no support for the notion that morbidity from cancer in the Teleborg district was any different from what would be expected. From the researcher's point of view the result was negative, while from the population's point of view it was positive. It is also clear

that the Swedish district physician has an important public health role, and that the excellent regional and national cancer registers of Sweden make this type of study easy.

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### Nitrite test for bacteriuria detection

Sir,  
The ability of most bacteria to reduce nitrate to nitrite forms the basis of a rapid test for bacteriuria. If accurate, such a test could be helpful in diagnosing urinary infection in general practice patients presenting with dysuria and frequency. A study was therefore undertaken to examine the usefulness of the nitrite test for this purpose.

The sample population was taken from two studies which took place at the Earnswood Medical Centre in 1986–87 (134 female patients),<sup>1</sup> and in 1989 (110 female patients).<sup>2</sup> The 244 consecutive female patients attended their general practitioner complaining of dysuria and/or frequency. The age range of patients in the first study was 17–78 years, mean 47 years,<sup>1</sup> and 17–80 years in the second study, mean 43 years.<sup>2</sup> Symptoms and relevant history were noted, and a midstream specimen of urine collected. A sample of the urine was tested immediately for nitrite with N-Labstix® (Ames), and another was used to inoculate a dipslide (Orion). The dipslide was sent by post to the Department of Microbiology at The Royal Free Hospital and processed as described previously.<sup>1</sup>

A total of 131 specimens (54%) had 10<sup>5</sup> colony-forming units per ml or more and 47 (19%) gave a positive test for

**Table 1.** Morbidity from cancer in the Teleborg district over the period 1980–89.

Age (years)	No. of cases		SMR	(95% CI)
	Observed	Expected		
<i>Men</i>				
0–24	4	3.9	1.03	(0.28 to 2.63)
25–44	7	11.4	0.61	(0.25 to 1.27)
45–64	26	26.7	0.97	(0.64 to 1.43)
65+	24	25.8	0.93	(0.59 to 1.38)
Total	61	67.8	0.90	(0.69 to 1.16)
<i>Women</i>				
0–24	1	3.5	0.29	(0 to 1.05)
25–44	25	23.0	1.09	(0.70 to 1.60)
45–64	32	28.2	1.13	(0.78 to 1.60)
65+	32	20.0	1.60	(1.09 to 2.26)
Total	90	74.7	1.20	(0.97 to 1.48)

SMR = standardized morbidity ratio. CI = confidence interval.

nitrite. Taking the results of culture as the gold standard for defining an infection, the nitrite test gave 43 true positives, 109 true negatives, four false positives and 88 false negatives. From these figures, test parameters were calculated<sup>3</sup> giving a sensitivity of 33%, a specificity of 97%, a positive predictive value of 92% and a negative predictive value of 55%.

The value of the nitrite test must be assessed according to the circumstances in which it is used. For example, results obtained in elderly, male or infant populations, and in symptomatic and asymptomatic patients will differ owing to the different prevalence of urinary infection in these groups. In a laboratory series, prevalence will be approximately 20%,<sup>4</sup> in screening of asymptomatic schoolgirls approximately 1.5%,<sup>5</sup> and for symptomatic patients in general practice approximately 50%.<sup>1,2</sup> This makes for widely differing predictive values, even when the sensitivity and specificity are the same.<sup>6</sup>

Few studies on the nitrite test have been reported from general practice. Ditchburn and Ditchburn,<sup>7</sup> using a different test strip, obtained slightly better results than those reported here, while the data of Dobbs and Fleming<sup>8</sup> cannot be compared directly as they did not culture all urine samples tested with N-Labstix.

Our results show that N-Labstix produces a disappointingly high proportion of false negative nitrite results, which in turn gives a poor predictive value for a negative test. Unless this problem can be overcome, we conclude that the nitrite test in the general practitioner's surgery will not be helpful in deciding whether symptomatic patients have a urinary infection or urethral syndrome.<sup>9</sup>

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## A4 medical records

Sir,

I was sad to read Julian Tudor Hart's statement that less than 5% of practices in England and Wales use A4 records and that the Department of Health has no plans to encourage their use (*March Journal*, p.116). A4 medical records were adopted as the official medical record for patients in Scotland with effect from 1 April 1990<sup>1</sup> and are currently used by some 80% of general practitioners in this country. I will resist the temptation of drawing any conclusions from these facts.

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## Computer generated discharge summaries

Sir,

Since February 1991, the Cornwall Stroke and Rehabilitation Unit has been providing computer generated discharge summaries for patients leaving the unit. A brief description is given of this important development in the field of medical rehabilitation and its relevance in the new style National Health Service where purchasers are being asked to review provider contracts, to assess both the organization of and access to rehabilitation services.

The rehabilitation medical data index is a specialized database linked into the patient administration system database for Cornwall. Basic information on each patient, such as name, date of birth and

a medical history, is automatically incorporated into the medical data index. All episodic information on each patient, including test results and outcome measures such as mobility range and dependency levels, is taken via code lists and added to the rehabilitation medical data index by the secretary on the ward during patient admission. Code lists in the rehabilitation medical data index cover all parameters of patient information, from the patient's type of accommodation to details of carers. The use of code lists forces clearer thinking, prevents errors in data entry and so allows retrieval of uncorrupted data. The choice of data collected was influenced by bodies such as the King's Fund consensus on stroke<sup>1</sup> and the British stroke research group.<sup>2</sup> Written records are kept in parallel for medico-legal reasons.

The discharge summary produced is dependent on the information stored in the rehabilitation medical data index for that patient. The index has been set up with summary print formats which produce a report whose order follows that of a conventional discharge letter, but which is in a standardized and readily understandable form. A brief narrative of progress is added just prior to discharge, together with details of the patient's dependency levels and the community follow-up plan. The discharge summary includes information relevant both to the general practitioner and to other involved parties.

Under the data protection act, each patient is entitled to see stored information on him or herself, and for this reason the contents of the discharge summary are shown and explained to the patient before discharge. Occasionally, a delicate balance has to be struck if any details have to be excluded from the discharge summary.

Measuring the effectiveness of stroke management is difficult, but scores have been produced assessing dependency for seven basic faculties: mobility, continence, personal hygiene, dressing/undressing, feeding/drinking, food preparation and communication. These should not be confused with activities of daily living indices;<sup>3,4</sup> our scores measure the dependency of the patient on people or equipment. The assessment of dependency for seven basic faculties is a relatively crude measure, but clearly demonstrates increase in independence during rehabilitation. In future, as part of the audit of stroke rehabilitation, it will be essential to define any recovery or regression which occurs at points following discharge from hospital and, with this in mind, these scores can be modified both by the general practitioner and by