

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 calculated³ 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%,⁴ in screening of asymptomatic schoolgirls approximately 1.5%,⁵ and for symptomatic patients in general practice approximately 50%.^{1,2} This makes for widely differing predictive values, even when the sensitivity and specificity are the same.⁶

Few studies on the nitrite test have been reported from general practice. Ditchburn and Ditchburn,⁷ using a different test strip, obtained slightly better results than those reported here, while the data of Dobbs and Fleming⁸ 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.⁹

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References

- Cooper J, Raeburn A, Brumfitt W, Hamilton-Miller JMT. Single dose and conventional treatment for acute bacterial and non-bacterial dysuria and frequency in general practice. *Infection* 1990; 18: 65-69.
- Cooper J, Raeburn A, Brumfitt W, Hamilton-Miller JMT. Comparative efficacy and tolerability of cephadrine and cefuroxime axetil in the treatment of acute dysuria and/or frequency in general practice. *Br J Clin Pract* 1992; 46: 24-27.
- Galen RS, Gambino SR. *Beyond normality: the predictive value and efficiency of medical diagnoses*. London: Wiley, 1975.

- MacGowan AP, Cowling P, Marshall RJ, Reeves DS. Screening of urines with dipstrips: does it reduce workload and consumable costs? *J Clin Pathol* 1990; 43: 875.
- Rich G, Glass NJ, Selkon JB. Cost-effectiveness of two methods of screening for asymptomatic bacteriuria. *Br J Prevent Soc Med* 1976; 30: 54-59.
- Dierksheide WC. Medical decisions: interpreting clinical tests. *Am Soc Microbiol News* 1987; 53: 677-680.
- Ditchburn RK, Ditchburn JS. A study of microscopic and chemical tests for the rapid diagnosis of urinary tract infections in general practice. *Br J Gen Pract* 1990; 40: 406-408.
- Dobbs FF, Fleming DM. A simple scoring system for evaluating symptoms, history and urine dipstick testing in the diagnosis of urinary tract infection. *J R Coll Gen Pract* 1987; 37: 100-104.
- Brumfitt W, Hamilton-Miller JMT, Gillespie WA. The mysterious 'urethral syndrome'. *BMJ* 1991; 303: 1-2.

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 1990¹ 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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Reference

- NHS circular DGM (1989) 46. Edinburgh: Scottish Home and Health Department, 1989.

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 stroke¹ and the British stroke research group.² 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;^{3,4} 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