

in those dying of cardiac causes compared with those who survived (0.11 (0.07) and 0.05 (0.02) ms^{1/2} respectively, P<0.001). However, heart rates were similar in the two groups (66 (12) beats/minute in survivors and 66 (13) beats/minute in those who died).

Although there are methodological problems with qualitative measurement of QTc dispersion, previous work has shown that variation in interlead measurements far outweigh inaccuracies introduced by any other factor, including interobserver and intraobserver variation.² In our study the intraobserver and interobserver variability expressed in absolute values was of the order of 11 ms^{1/2} and 16 ms^{1/2} respectively, suggesting that the differences in QTc dispersion between patient groups cannot be explained by variability in measurement. In fact, we reported coefficients of variation on page 875 of our article.

The study by Agha W Haider and Saba Naz showing reduced QTc dispersion in patients with preinfarction angina warrants further investigation. Although preinfarction angina might confer some early benefit in hospital, it tends to be associated with more recurrent ischaemia and a worse longer term outcome.³ A recent study showing increased QT dispersion in diabetic patients with autonomic dysfunction⁴ suggests that measurement of QT dispersion in this group of patients may be a cheap and valuable tool for detecting patients at increased risk of sudden cardiac death, as suggested by György Jermendy.

DAWOOD DARBAR
Research fellow

Vanderbilt University School of Medicine,
Nashville, TN 37232-6602
USA

ALLAN D STRUTHERS
Professor of clinical pharmacology

Department of Clinical Pharmacology,
Ninewells Hospital and Medical School,
Dundee DD1 9SY

- 1 Sylvén JC, Horacek BM, Spencer CA, Klassen GA, Montague TJ. QT interval variability on the body surface. *J Electrocardiol* 1984;17:179-88.
- 2 Cowan JC, Yusoff K, Moore M, Amos PA, Gold AE, Bourke JP, et al. Importance of lead selection in QT interval measurement. *Am J Cardiol* 1988;61:83-7.
- 3 Cupples LA, Gagnon DR, Wong ND, Ostfeld AM, Kannel WB. Pre-existing cardiovascular conditions and long-term prognosis after initial myocardial infarction: the Framingham Study. *Am Heart J* 1993;125:863-72.
- 4 Wei K, Dorian P, Newman D, Langer A. Association between QT dispersion and autonomic dysfunction in patients with diabetes mellitus. *J Am Coll Cardiol* 1995;26:859-63.

Introduction of the computer assisted prescribing scheme Prodigy was premature

EDITOR.—Jacqui Wise writes about claims that have been made since an interim report was published on the computer assisted prescribing project Prodigy.^{1 2} We are disappointed by the lack of statistical evidence in the report and thus by its lack of scientific integrity.

Prodigy, which was used by 137 practices, was evaluated over the period December 1995 to February 1996.² In response to the question "How much would you want to continue with Prodigy?" 14 of the 86 respondents indicated that they would continue to use it, 32 indicated that they would continue if it was improved somewhat, 33 indicated that they would continue only if improvements were considerable, five selected the vague option "some time in the future," and two chose "never again." As opinions were solicited during the expected honeymoon period of the new system, these responses are downbeat.

Surprisingly, the results are reported as "confirming desirability" of the system to general practitioners. The author of the report also claims that the system's "effectiveness" is confirmed by the

fact that prescribing costs (adjusted from the net ingredient cost per prescribing unit) for Prodigy sites rose by 4.8%, compared with 5.9% for all other practices. This is reported as a "relative reduction in the rise of expenditure of 1.1%." Firstly, this is an absolute reduction and not a relative one. Secondly, there is no indication of the variance of this prescribing indicator for the groups compared; indeed, no statistical analysis is reported. The author lists a large number of evaluation methods, including a 10% poll of general practitioners by questionnaire, so considerable resources have been spent. If no reliable and statistically robust conclusions can be drawn then these resources have been wasted.

Perhaps it was misinformation that led the health minister, Gerald Malone, to make the specious claim that "Prodigy research has broken through frontiers in computer based support for general practice."¹

Decision support in therapeutics is one of the most important areas for research into, and development of, clinical knowledge systems. In our opinion, the Prodigy software was thrust prematurely into general practice systems as an active appendage to support decision making. This can alienate users by operating for some of the time as an "uninvited guest" in the clinical decision making process. No computer can reliably predict what each user does not know; thus complementary active and passive systems to support general practitioners' knowledge should be developed. In the case of Prodigy, we believe that political initiatives have been misguided and that medicine has lost an opportunity to gather reliable evidence in computer assisted prescribing.

IAIN E BUCHAN
Research fellow, medical informatics unit

RUDOLF HANKA
Director, medical informatics unit

DAVID PENCHEON
Consultant public health physician

Institute of Public Health,
University of Cambridge,
Cambridge CB2 2SR

PETER BUNDRED
Senior lecturer in primary care

Department of Primary Care,
University of Liverpool,
Liverpool L69 3BX

- 1 Wise J. Computer prescribing scheme gets green light. *BMJ* 1996;313:250. (3 August.)
- 2 Purves I. *PRODIGY interim report*. Newcastle upon Tyne: Sowerby Unit for Primary Care Informatics, University of Newcastle, 1996.

Shortage of psychiatric beds exists in Staffordshire too

EDITOR.—Doris Hollander and colleagues highlight the considerable overoccupancy of acute psychiatric beds in Greater London and suggest that similar studies be made in other parts of Britain.¹ Our clinical experience in North Staffordshire suggested a similar problem. To assess the effect of changes in local services and, specifically, the effect of provision of non-acute beds² on the use of acute beds we retrospectively investigated bed occupancy between 1987 and 1993. North Staffordshire's population of 460 000 is served by 94 acute psychiatric beds (0.2 beds per 1000 population), and the Jarman underprivileged area scores range from -33.26 to 38.37. Bed occupancy for 1987-93 was derived from Körner returns. The reliability of this information source for identifying admissions was ascertained by comparison of the data with manual ward registers, case notes, and registers required under the Mental Health Act. Körner data were found to record at least 99.5% of all admissions.

Bed occupancy was less than 100% in only one year (1991) and reached 130.5% in 1988

Table 1—Bed occupancy and mean length of stay for acute psychiatric beds in North Staffordshire. Figures in parentheses are 95% confidence intervals

Year	Bed occupancy (%)	Mean length of stay (days)
1987	115.2 (85.0 to 145.3)	50.0 (44.4 to 55.6)
1988	130.5 (127.0 to 134.0)	38.3 (34.7 to 42.0)
1989	101.0 (90.5 to 111.2)	35.2 (31.7 to 38.7)
1990	103.7 (100.0 to 107.6)	33.1 (30.3 to 35.8)
1991	99.5 (95.8 to 103.2)	37.0 (33.3 to 40.7)
1992	114.7 (110.3 to 119.2)	39.0 (35.6 to 41.9)
1993	103.2 (96.5 to 109.9)	31.3 (28.9 to 33.7)

(table 1). No significant trend could be shown for either bed occupancy or length of stay. The methodology used is more likely to have underestimated than overestimated occupancy. In addition, the number of extracontractual referrals could not be reliably assessed.

These figures suggest that North Staffordshire has a longstanding shortage of acute psychiatric beds. Whether recent innovations in the provision of services will have an impact on bed occupancy remains to be seen.

R E HODGSON
Consultant psychiatrist
A P BOARDMAN
Senior lecturer in psychiatry

Department of Psychiatry,
Keele University School of Postgraduate Medicine,
North Staffordshire Hospital,
Stoke on Trent ST4 7QB

- 1 Hollander D, Powell R, Tobiansky R. Bed occupancy in psychiatric units in Greater London is 113%. *BMJ* 1996;313:166. (20 July.)
- 2 Audit Commission. *Finding a place. A review of mental health services for adults*. London: HMSO, 1995.

Early diagnosis of childhood tuberculosis

High index of suspicion is needed

EDITOR.—In addition to highlighting the pitfalls of contact tracing in childhood tuberculosis, Julia E Clark and Andrew J Cant raise the important issue of diagnostic difficulty in this age group.¹ With the rising incidence of tuberculosis in Britain, a high index of suspicion must be maintained, especially in patients with unusual clinical features. In the past six months three white patients presenting to our department have been investigated extensively before the diagnosis of tuberculosis was confirmed.

The first patient was a 4 year old girl who presented with a seven week history of cough and left upper lobe consolidation in a chest radiograph, which persisted despite treatment with oral antibiotics. She underwent bronchoscopy three months later, when an endobronchial tumour was found in the left main bronchus; computed tomography showed this to be entirely intraluminal. Bronchoscopic biopsy of the tumour showed caseating granulomas and acid fast bacilli. A Mantoux test (10 U) subsequently yielded a strongly positive result.

The second patient was a 3 year old boy referred from his local hospital with a three week history of increasing stridor. A chest radiograph and computed tomogram showed a large paramediastinal mass suggestive of a bronchogenic cyst. At thoracotomy the mass was found to be an enlarged lymph node containing acid fast bacilli. A preoperative Mantoux test (10 U) had yielded a negative result.