

popular over recent years and have an important role, they must be continually updated to take account of changes in medical knowledge and practice.² At the same time, guidelines must honestly reflect the many uncertainties in management and not attempt to simplify healthy variation in practice.³ In two separate studies in South East Thames region looking at a total of 1600 patients with head injury attending accident and emergency departments, 16 skull fractures would have been missed if the criteria for ordering skull radiography had been adhered to.

To avoid "laundry lists" or "cookbook medicine,"⁴ criteria should be restricted to elements that are essential or critical to management; that surely must include the mechanism of injury in patients presenting with the common diagnosis of mild head injury. If the criteria are to be effective they need to be considered in all cases of head injury by doctors in accident and emergency departments. Handwritten notes from local departments suggest that this is not the case. With use of a specially designed form for head injury the quality of documentation and hence consideration of the criteria have been considerably improved. Such a method of documentation has been used in nine accident and emergency departments in South East Thames region and is being evaluated.

The doctors in Manchester seem to support the view that guidelines are not intended to replace clinical judgment⁵ and have shown that practising medicine in the 1990s remains an art.

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Don't rely on skull x ray examination

EDITOR.—Patrick A Nee and colleagues' paper is a reminder of the risks of apparently minor head injury¹ and draws attention to the Royal College of Radiologists' guidelines for skull radiography.² The authors support the college's view that the guidelines are not intended to replace clinical judgment, but another factor should be considered. Negative findings on skull radiography do not exclude either a skull fracture or important intracranial injury (although they greatly reduce the probability of either) and, indeed, may provide false reassurance. We report on two patients with appreciable intracranial haemorrhage after trauma, in whom skull radiography showed no abnormality.

Case 1—A 12 year old girl fell from a swing, was briefly unconscious, but on arrival in casualty was fully conscious and oriented. A skull x ray film was normal. Because of the history she was admitted, and a gradual deterioration was observed. A computed tomogram showed an extradural haematoma, which was evacuated successfully. At craniotomy a temporal skull fracture was encountered, which, even retrospectively, was not visible in the good quality films. She made a full recovery.

Case 2—A man of 25 was involved in a fight with an opponent armed with a club. He was knocked out and brought to the accident department, where skull radiographs were interpreted as showing no abnormality. He was discharged but returned the

next day with decreased consciousness and a hemiparesis. Computed tomography showed a large extradural haematoma, which was evacuated; the patient made a good recovery. Review of the skull radiographs showed that there was a parietal fracture about 12 cm long.

Staff dealing with head injuries should remember that skull radiography can yield negative findings in three circumstances: when there is no abnormality, a radiographically invisible fracture, or a fracture that has been missed or misinterpreted as a normal variant. We hope that this serves as a reminder of the importance of not relying solely on radiographs, and as Nee and colleagues state, of continuing to use clinical judgment in such cases.

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Ocular melanomas in pregnancy

EDITOR.—Ismail Jatoi and Martin E Gore discuss melanoma and pregnancy.¹ I would like to contribute some information concerning ocular melanomas: since uveal and skin melanocytes both derive from the neural crest it is reasonable to propose that similar mechanisms may have a role in each.

I agree that it has not been shown conclusively that pregnancy has an adverse effect on a patient's chance of survival from malignant melanoma. Ophthalmologists, however, are most concerned with "survival" of an eye with a uveal melanoma, and the aim of treatment is to retain as much vision as possible. We have seen a young woman with a uveal melanoma that showed dramatic growth during her pregnancy, leading to uncontrollable intraocular pressure and eventually necessitating removal of the eye.

The first such fully documented case, I believe, was reported by Seddon *et al*, who observed growth of a choroidal melanoma in a young woman over the course of two pregnancies that led to enucleation of the eye.² They found that her ocular symptoms occurred during the second half of each of the two pregnancies.

Hartge *et al* reported a case-control study in which they compared 238 women with intraocular malignant melanoma with 223 matched controls with detached retinas.³ They observed an increased risk among women who had been pregnant (relative risk 1.4) and women who used replacement oestrogens (relative risk 2.0). Histopathologically the melanomas in pregnant women do not seem to differ appreciably in cell type or mitotic activity from those in non-pregnant women.⁴

Changes in cellular and humoral immunity occur in pregnancy.⁵ These may allow more rapid growth of a pre-existing melanoma in the eye, which may then be much less amenable to localised treatment and may have to be managed by enucleation.

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The SF 36 health survey questionnaire

A valid measure of health status . . .

EDITOR.—In response to our recent paper on the short form 36 (SF 36) health survey questionnaire¹ Sonja M Hunt and Stephen P McKenna question the validity of certain items contained in the questionnaire² and Trevor Sheldon expresses concern over its reliability.³ Hunt and McKenna cite as an example the question "Does your health limit you in your ability to walk a mile?" and point out that, for some people, the ability to walk a mile may have little bearing on quality of life—they may have neither the need nor the desire to walk this distance. Though we agree that this is true for some people, we believe that this "problem" with the SF 36 is more perceived than real.

The SF 36, like many other measures of health status (including the Nottingham health profile), was designed to assess functioning and wellbeing. It was never intended to value the importance of these aspects of health in achieving a good quality of life. A comprehensive portfolio of outcome measures would include at least one other instrument designed specifically for that task. In our study we included two such measures: the patient generated index of quality of life, which asks patients to nominate the five most important areas or activities of life affected by their condition and to value the importance of improvements in these areas,⁴ and the daily time trade off, which asks patients how much time in the day they would be prepared to give up in order to be in perfect health.⁵

In our article we showed that patients' scores on the eight SF 36 scales were clearly related to their clinical condition, the general practitioner's decision to refer, and the general practitioner's assessment of the severity of symptoms.¹ We believe that these findings provide good evidence that the questions contained in these scales combine to produce valid measures of health status.

Sheldon states that when a measure of health status is used as an outcome measure it must be shown to produce results that are consistent over time. He goes on to say that "the usual way of assessing reliability [over time] is to administer the test to the same people on at least two occasions a short time apart to avoid appreciable changes in their health status." We would like to be able to report that the SF 36 shows this form of test-retest reliability in a population, but there are problems in applying this approach to a group of people who present to their doctor in the hope of attaining an "appreciable change" in their health status. Some of these patients will get better over a short time, some will get worse, and some will stay the same. It is extremely difficult to assess whether inconsistent results over, say, two to four weeks are due to measurement error of the SF 36 or true changes in the health of the population studied. This probably explains why no studies that we are aware of have reported the test-retest reliability of SF 36 in groups of patients. We are currently exploring ways to overcome these problems and hope to be able to report the SF 36's test-retest reliability in the future.

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... if used within its limits

EDITOR,—In our recent paper we presented normative data on the short form 36 (SF 36) health survey questionnaire.¹ We intended these data to be of use to people considering using this instrument. Trevor Sheldon subsequently suggested, however, that data from the Oxford study should not be taken as typical of responses from Britain as a whole and that our data should be interpreted with caution.² We have sympathy with this view but would point out that the comparison between, for example, the data from Oxfordshire and the data from Sheffield is more striking for its similarities than its differences. Furthermore, the designers of the SF 36 suggest mean differences which might be regarded as significant,³ and the differences reported from Sheffield and Oxford are far less than the benchmarks offered by the designers.

Sonja M Hunt and Stephen P McKenna suggest that we imply that the SF 36 can be used for the evaluation of outcomes of anything from health promotion activities to hip replacement operations and exercise programmes. No such claims were made or, we believe, implied in our paper. We emphasised that the questionnaire should be used carefully and with considerations to its limitations. Hunt and McKenna, for example, note that the SF 36 lacks a dimension concerning sleep; this point was clearly made in our paper, and we further advocated careful choice of instruments that measure dimensions appropriate to specific illnesses.

Hunt and McKenna also suggest that questionnaires age and that their items may become less appropriate with time. This is true, but the SF 36 is relatively new and has not yet been fully documented for use in England. Papers on the questionnaire that have been published in the *BMJ* are attempts to validate it for use in Britain and are not, as Hunt and McKenna suggest, attempts to renovate an old instrument. We find it ironic that the designers of the Nottingham health profile claim that we should not be renovating old instruments: after all, it was these designers who recently published a paper on an amended version of their own—and, on their own admission, old—questionnaire so it could be used to derive a single index figure.⁴ The papers on the SF 36 that have been published are attempts to validate the measure to ensure that its operating characteristics are documented: once these have been established the measure can be used appropriately with full understanding of its strengths and weaknesses.

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Unanswered questions remain

EDITOR,—As John E Ware notes in his editorial, the arguments for including measures of patients' subjective perceptions in the assessment of the outcomes of health care interventions are now widely accepted.¹ The challenge, he argues, is to find reliable, valid, acceptable, and feasible tools to collect such information. According to narrow technical definitions of these criteria, the short form 36 (SF 36) health survey questionnaire seems to be moving ahead of other such instruments. Before definitive judgments are made on the utility of particular measures, however, different and perhaps more intractable questions about validity, acceptability, and feasibility must be resolved.

Firstly, standardised measures of the outcomes of discrete elements of care will never measure the full complexity of the experience of health and illness. But we have examples from interviews with older patients with cataract of the SF 36 failing to pick up important aspects of this experience. Secondly, the fact that patients respond to a questionnaire obviously means that in some sense the questionnaire is "acceptable." This does not, however, mean that administering it by post or any other means is ethical. The SF 36 caused considerable distress to some patients in our study. Both these problems could have been magnified by the age of our patients. Structured measures may, however, result in similar problems with any group with multiple or complex health problems, regardless of age.

Thirdly, as Andrew M Garratt and colleagues argue, purchasers need to measure outcomes to allocate resources cost effectively and humanely and providers need to show the quality of services to survive in the market.² Our experience suggests, however, that in the real world of the NHS the divisions between purchasers and providers can engender distrust, which may make it more difficult to collect the information on outcomes that is needed.

There is undoubtedly a role for standardised measures of outcomes as assessed by patients and for more methodological work testing such measures. It is too early, however, to focus all energies on the SF 36. In particular, routine in depth qualitative research is needed to listen directly to what patients have to say rather than their voices always being channelled through templates of the experts' making.

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Questionnaire does detect poor sleep

EDITOR,—The two recent papers on the use of the short form 36 (SF 36) health survey questionnaire^{1,2} prompted several letters, one of which criticised the validity of the instrument on the grounds that it does not contain questions referring to sleep.³ Though we agree with the authors that sleep disturbance is commonly associated with ill health, a health status instrument should not be disease specific but should be able to differentiate between

people with and without specific disorders that affect health.

We recently carried out a study of health status in which a random sample of adults (n = 827, response rate 82%) in West Glamorgan were interviewed by health visitors in their own home. The SF 36 was used, and several questions on self reported morbidity were asked, including one on whether the person had been treated by a doctor for "problems sleeping" during the previous 12 months. Eighty five people reported having received such treatment in the previous year.

Multiple linear regression was used to determine whether the people who had been treated for a sleeping disorder had lower scores for the SF 36 variables than the other people when allowances were made for differences in age and sex. The table gives the mean scores for all the people interviewed (the group means) and the difference between the mean scores for the people who had been treated and the group means. These results clearly indicate

Mean score for eight variables of SF 36 for all 827 people interviewed (group mean) and difference between mean score for the 85 people who reported having been treated for sleeping problems in previous year and group mean

Variable	Group mean	Difference (95% confidence interval) between mean score for those treated and group mean
Physical functioning	76.2	-18.3 (-12.8 to -23.8)
Role limitations:		
Emotional	82.9	-27.8 (-20.1 to -35.5)
Physical	72.5	-19.4 (-10.9 to -27.9)
Social functioning	80.6	-21.6 (-15.4 to -27.8)
Mental health	75.3	-19.2 (-15.0 to -23.6)
Bodily pain	70.9	-21.0 (-14.5 to -27.5)
Vitality	58.4	-18.6 (-13.4 to -23.7)
General health perceptions	66.6	-22.2 (-16.9 to -27.5)

that the people who had been treated for sleeping disorders had significantly lower scores for each of the eight variables of the SF 36. As the question asked is clearly not 100% specific or sensitive in detecting current sleep disorders and as some misclassification would have occurred, which should have biased the results against showing any association, the true magnitude of the association between sleep disorders and health status must be larger than that shown. Nevertheless, the size of the differences between the people who had and had not been treated for sleeping disorders indicates that the SF 36 does distinguish well between these groups; the lack of a question on sleep does not seem to detract from its validity.

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Regulation of locum staff

EDITOR,—The report of the hearing of the General Medical Council at which Dr Behrooz Irani was found guilty of serious professional misconduct is disturbing.¹ The most worrying aspect of the affair is that Dr Irani was able to put other patients at risk after the incident at Castle Hill Hospital. How could this have been prevented?

Even if doctors are seen to be unsafe and are dismissed, as was the case with Dr Irani, they can apply for other posts by using referees from