

Monitoring Psychosis in General Practice: A Controlled Trial

IRWIN NAZARETH, MICHAEL KING and SHARON SEE TAI

Background. This trial evaluated the feasibility, acceptability and effectiveness of a structured approach to the management of schizophrenia in general practice.

Method. All patients with non-affective psychosis (mainly schizophrenia) in four inner-city general practices were recruited. A check-list and a set of outcome measures were used by the general practitioner and the practice nurses. Information on attendances at the general practice and psychiatric out-patient departments was also collected.

Results. Two practices took part in the intervention and two served as control practices. Sixty-seven patients with non-affective psychosis were identified. Thirty-three (81%) of the 41 patients in the two intervention practices attended the initial assessment by the doctor and nurse, but only 13 (32%) attended the first review assessment. The attendance for the second review, after six months, was six out of 15 (40%) in one practice, but rose to 16 out of 18 (89%) in the other practice. Significant improvements were recorded in the intervention group on the Global Assessment Scale (GAS) and the Behaviour, Speech and Other Syndromes (BSO) subscore of the Present State Examination (PSE). The absolute risk reduction and relative risk reduction as a result of the intervention, as measured by the GAS scores, was 29% (95% CI 4% to 54%) and 36% (95% CI 5% to 66%), respectively, and in the case of the BSO subscores of the PSE, this was 23% (95% CI –1.8% to 47.2%) and 28% (95% CI –2.2% to 57%), respectively. For one patient to show an improvement in GAS and BSO scores 3.5 patients (95% CI 1.85 to 25) and 4.3 patients (95% CI –55 to 2.1), respectively, would need to receive the intervention. There was a significant increase in consultation rates for patients in the intervention practices.

Conclusions. Health surveillance of patients with non-affective psychosis is possible in general practice.

Developments in community care provide an opportunity to improve the quality of care in general practice for patients with chronic mental illness. General practitioners, (GPs), however, regard the community reforms as remote and theoretical (Robinson, 1993). Patients with schizophrenia and related psychoses consult their GP as frequently as those with chronic physical disease, but are offered less structured care (Nazareth *et al*, 1993a). Primary-care professionals need assistance in developing a systematic approach to the management of such patients in general practice.

Primary-care clinics for the management of diabetes are common and most patients now expect their GP to be involved in their continuing care. The follow-up is believed to be more thorough than in secondary care, and the workload is shared between a doctor and an experienced nurse. In this paper we describe the assessment of a similar model for the health surveillance of schizophrenia and other non-affective psychosis in general practice.

We hypothesised that the use of a structured check-list for the management of non-affective psychosis was feasible in general practice and would lead to improved clinical and social outcomes for patients. We aimed: to develop a check-list for the health surveillance of patients with non-affective psychosis; to assess its feasibility and acceptability in general practice; and to examine its efficacy by means of a controlled trial.

Method

A check-list for the care of schizophrenia and related psychoses in general practice was developed from a review of the literature and from detailed information on the views of patients and their GPs (Nazareth *et al*, 1995). Earlier versions were modified after extensive discussion with a range of primary- and secondary-care professionals. A brief manual providing practical assistance for primary-care professionals in using the check-lists was also

developed. It was intended that the use of a manual would increase the reliability of assessments and serve as a guide to the management of schizophrenia and other psychoses. The check-list guided the doctors and nurses in making a structured physical, psychological and social assessment of each patient, emphasising those features of the illness that predict relapse. The doctor and the practice nurse used the check-list at the first visit. The nurse saw each patient for approximately 20 minutes, in which he or she reviewed the physical, psychological and social history, conducted a health check, reviewed drug therapy and provided information to the patient and carer where appropriate (Appendix). The nurse's findings were passed to the doctor, who assessed the patient for approximately 10 minutes, concentrating on physical and mental state, drug side-effects and overall risk status (Appendix). Two follow-up appointments took place three months apart, when the nurse and the doctor updated information from the check-list. Each follow-up visit was planned to last five minutes with the nurse and 10 minutes with the doctor.

The controlled trial

Four general practices in central London agreed to participate in the study, two of which chose to be the intervention practices. The practices were not randomly selected for this pilot study. There were five doctors in the intervention practices and four in the control practices. None had a special interest in mental health. The total practice population involved was 9000 in the intervention practices and 7000 in the control practices. In each intervention practice the doctors and nurses undertook a two-hour training session, and half a day was set aside for the clinic every two weeks. All patients with a diagnosis of non-affective psychosis (codes 295 and 297 of ICD-9; World Health Organization, 1978), identified on the practice computer, received a letter from their GP inviting them to the first assessment. Non-attenders were contacted by letter or telephone and offered another clinic appointment. There was no age limit applied to the patients invited to the clinics. Patients who again failed to attend were reminded for a third and final time. Each patient who attended the initial assessment was offered review assessments at three and six months, and was reminded by letter or a telephone call one week before the appointment.

Meetings were held with the doctors and nurses every two months in each of the intervention

practices in order to obtain their views of the study and to assist them in the use of the check-list and the organisation of the clinics. Management issues pertaining to individual patients were not addressed. The staff were strongly encouraged to maintain their usual contact with secondary-care services.

Research assessments

All patients identified in the four study practices were approached by IN for a research assessment at recruitment to the study and after six months. Each assessment lasted 90–120 minutes and was carried out either at the surgery or in the patient's home. IN approached the patients' carers in cases where information was required in order to make an assessment.

Demography and retrospective diagnosis. Demographic details were collected on each subject using a standard questionnaire. A retrospective diagnosis was then assigned to each patient using the following schedules: the Symptom Check List (Parloff *et al.*, 1954), DSM-III-R (American Psychiatric Association, 1987), and ICD-9.

The Present State Examination (PSE). The ninth version of this interview provides a detailed assessment of the patient's psychiatric state over the preceding month (Wing *et al.*, 1974).

*The Targeting Abnormal Kinetic Effects (Wojcik *et al.*, 1980) and Abnormal Involuntary Movements interviews (Guy, 1976).* These are observer-rated assessments of the side-effects of antipsychotic medication.

*The Client Satisfaction Questionnaire (Larsen *et al.*, 1979).* This was designed in the USA; it provides a brief, global measure of the patient's satisfaction with the service. It has been used in similar populations in the UK (Muijen *et al.*, 1992).

*The 20-item Medical Outcome Survey (Stewart *et al.*, 1986).* This was developed in the USA and has been validated in the UK. It provides an overall measure of global health as perceived by the subject.

The Social Function Questionnaire. This is a self-rated measure of the patient's relationships with family, friends and work colleagues. It is highly correlated with a more detailed, observer-rated version (Tyrer, 1990) and has been used in similar patient populations.

The Global Assessment Scale. This is an observer-rated, structured measure of patients' overall psychiatric and social functioning (Endicott *et al.*, 1976). These ratings were made at the patient's home or at the surgery.

Analysis

Data were coded, entered and analysed using the Statistical Package for the Social Sciences, version 4.0. A comparison of the demographic details, use of services and baseline scores on the rating scales between patients in the intervention and control groups was carried out using the χ^2 statistic and Fisher's exact and Mann-Whitney *U* tests. The outcomes examined were differences in scores derived from the rating scales and changes in service use. The changes from the baseline data were calculated and the differences between the intervention and control groups were analysed using Mann-Whitney *U* tests (Pocock, 1983).

For all variables with significant differences between the intervention and control groups, the following were calculated. The absolute risk reduction (ARR) was calculated as the absolute difference between the proportion who got worse or exhibited no change in the control group (A) and in the treatment group (B), or (A-B). The relative risk reduction (RRR) is the percentage of patients who got worse or remain the same on account of the intervention relative to the controls or (A-B)/A \times 100. Finally, the numbers needed to be treated (NNT) in order to prevent one patient from getting worse was calculated as the reciprocal of the absolute risk reduction (Guyatt *et al*, 1994).

Results

Sixty-seven patients with non-affective psychosis were identified in the four practices, giving a prevalence of 4.2 per 1000 (95% CI 3.2 to 5.2). Of the 41 patients identified in the intervention practices, 33 attended the clinic and 30 were seen by the researcher (Table 1). Of the 26 patients identified in the control practices, 23 were seen by the researcher (Table 1). As only seven of the 18 patients attended the first three-month review clinic in intervention practice B, it was suggested by the GP and the practice nurse and agreed by us that opportunistic assessments would be used for the six-month review in this practice. This change resulted in 16 patients receiving a second review (Table 1). Four of the 15 patients recruited in intervention practice A and 7 of the 18 recruited in intervention practice B visited the clinic on all three occasions (Table 1).

One patient in the control group died of chronic heart disease. One patient in the intervention group died shortly after undergoing coronary artery bypass surgery for ischaemic heart disease which was detected at the first clinic visit. Forty-nine of

Table 1
Numbers of patients involved in each phase of the study

	Intervention practices		Control practices	
	A	B	C	D
Identified	18	23	10	16
First GP assessment	15	18	-	-
Researcher's initial assessment	13	17	9	14
Second GP assessment	6 ¹	7 ²	-	-
Third GP assessment	6	16 ³	-	-
Researcher's final assessment	11	16	9	13 ⁴

1. One subject moved area and changed practice after the first assessment in the practice.

2. One subject died within three months of the first GP's assessment.

3. An opportunistic model was used for the third practice assessment.

4. One subject moved within four months of the initial research assessment.

the 53 patients assessed at entry by the researcher agreed to a follow-up assessment (Table 1).

Half the subjects were female and the median age of all the subjects in the intervention and control groups was 49 years and 44 years, respectively. Fifty-three (95%) of the subjects had a lifetime diagnosis of non-affective psychosis according to the SCL, DSM-III-R or ICD-9, and 41 (74%) had active symptoms (i.e. symptoms due to both psychosis and neurosis) on the PSE. Nineteen of the 31 patients in the intervention practices and 10 of the 23 in the control practices had had no psychiatric contact in the 12 months before the study ($P=0.3$). There were no significant differences in age, sex, social class, duration of illness or diagnosis between the 11 patients who refused to attend the clinic or the research interview, and those who participated.

A range of interventions (an average of three interventions per patient) was offered by the GPs and the practice nurses at the first assessment (Table 2). A substantial number of patients received counselling and physical health promotional advice. Fewer interventions occurred during the first and second reviews; these averaged one per patient and were mainly concerned with health promotion.

Analysis of the baseline data

There were no significant differences between patients attending the intervention and control practices in demographic characteristics, lifetime diagnosis, duration and activity of their psychosis, service use or data from the rating scales. The number of general practice consultations in the previous six months, however, was significantly greater for patients in the intervention practices

Table 2
Intervention at first assessment in the general practices

Intervention offered	Practice nurse	General practitioner
Vaccinations	7	–
Advice on smoking	5	–
Counselling	13	12
Dietary advice	6	2
Cervical smears	3	–
Contraception	1	–
Blood investigations	1	4
Social interventions	4	1
Changes in psychotropic drug therapy	–	8
Referral to community psychiatric nurse	4	7
Referral to psychiatrist	–	2
Other referrals	2	6

(Mann–Whitney $U=229$, median difference = 1, 95% CI 0 to 2, 10th and 90th percentiles –3, 7.5, $P=0.012$).

Outcome measures

The patients attending the intervention practices showed greater improvements than the control patients on the Global Assessment Scale and the Present State Examination subscore for Behaviour Speech and Other Syndromes (Tables 3 and 4). Despite patients in the intervention group consulting more often than the control patients at the start of the study, their attendances increased more than those of the control patients over the six months (Table 4).

Satisfaction with the service

The staff in the intervention practices reported that the check-list was useful, although the nurses found the section on social function too detailed. The assessments were performed within the times allocated. When a patient's problems were recognised at the first clinic visit and dealt with in subsequent consultations, staff commented that the first three-month review was sometimes unnecessary.

Treatment effects

The treatment effect was calculated for two variables, namely the Global Assessment Scale (GAS) and the Behaviour, Speech and Other Syndromes (BSO) score as measured on the PSE. Fourteen (52%) of the subjects in the intervention practices registered either a decrease (worsening of clinical condition) or no change in their GAS scores, compared with 81% in the control group.

Table 3
The PSE scores¹ for patients allocated to each study group

	Median baseline score	Median end score	Median change in score (10th, 90th centile)	95% CI of median change in score	P^2
Total					
Intervention	14.5	11	1 (–9.8,8.4)	(–3,4)	0.7
Control	10	15	2.5 (–9.7,8.7)	(–4,5)	
Index					
Intervention	5	5	0 (–2.2,2)	(–1,0)	0.4
Control	6	6	0 (–2.7,2)	(–1,1)	
DAH					
Intervention	0.5	0	0 (–2.2,7.6)	(–1,0)	0.7
Control	2	2	0 (–7.6,4.4)	(0,1)	
BSO					
Intervention	2.5	1	0 (–4.2,1.2)	(–2,0)	0.02
Control	1	1	0 (–1.2,7)	(0,1)	
SNR					
Intervention	2	1	0 (–4.2,2.3)	(–2,0)	0.4
Control	2	2.5	0 (–5.4,4)	(–1,1)	
NSN					
Intervention	5	8	0 –4.2,7.2	(–2,3)	0.9
Control	6	7	0.5 –4.4,4.7	(–1,2)	

The PSE scores are reported only for subjects who were interviewed at the start and end of the study (i.e. 27 subjects in the intervention practices and 22 in the control practices).

1. The scores outlined are: Total=total PSE score, Index=index of Definition, DAH=Delusional and Hallucinatory Syndromes, BSO=Behaviour, Speech and Other Syndromes, SNR=Specific Neurotic Symptoms, NSN=Non-specific Neurotic Symptoms.

2. Mann–Whitney U tests.

The ARR and RRR were 29% (95% CI 4% to 54%) and 36% (95% CI 5% to 66%), respectively, and the NNT was 3.5 (95% CI 1.85 to 25) patients. Similarly, 59.3% registered either an increase (worsening of clinical condition) or no change in the BSO scores, compared with 82% in the control group. The calculated ARR and RRR were 23% (95% CI –1.8% to 47.2%) and 28% (95% CI –2.2% to 57%), respectively, and the NNT was 4.3 (95% CI 2.1 to –55) patients.

Discussion

We have demonstrated that a structured check-list can be used for the management of patients with

Table 4
Other outcome measures

	Median baseline score	Median end score	Median change in score (10th, 90th centile)	95% CI of median change in score	P ¹
GP attendances					
Intervention (n=31)	5	6	1 (-1.8,11)	(0,3)	0.03
Control (n=23)	3	3	0 (-3,6.8)	(-2,1)	
Psychiatric attendances					
Intervention (n=31)	0	0	0 (-0.8,5)	(0,0)	0.8
Control (n=23)	0	0	0 (-2.6,2.6)	(0,0)	
AIM					
Intervention (n=27)	1	1	0 (-8,6.4)	(0,1)	0.6
Control (n=21)	3	2.5	0 (-6.6,9.4)	(-4,3)	
TAKE					
Intervention (n=27)	0	0	0 (-6.2,7.2)	(0,0)	0.2
Control (n=21)	2.5	3.5	2 (-3.4,6.8)	(0,4)	
CSQ					
Intervention (n=23)	28	30.5	1 (-15.4,9.6)	(0,3)	0.2
Control (n=21)	29	31	0 (-6.2,4.8)	(-1,3)	
SFQ					
Intervention (n=25)	6	6	0 (-6.4,4.8)	(-2,2)	0.4
Control (n=22)	5	5.5	-1 (-3,3.4)	(-2,0)	
SF20					
Intervention (n=25)	70.5	65.75	0 -19.2,16.3	(-5,5)	0.2
Control (n=22)	65.25	69	2.25 (-14,33)	(-5,4)	
GAS					
Intervention (n=27)	60	60	0 (-10,30)	(0,10)	0.04
Control (n=21)	60	60	0 (-18,18)	(-10,0)	

GP/psychiatric attendances=attendances to GP and psychiatric out-patient departments in the six months before and after the start of the trial; AIM=Abnormal Involuntary Movements; TAKE=Targeting Abnormal Kinetic Effects; CSQ=Client Satisfaction Questionnaire; SFQ=Social Function Questionnaire; SF20=Medical Outcome Survey Short Form 20; GAS=Global Assessment Scale.
1. From Mann-Whitney *U* tests.

schizophrenia and other non-affective psychoses in general practice. The practice staff preferred the more organised style of assessment and significant changes in clinical state were achieved. The nurses' preference for a briefer check-list was not surprising; we aimed to pilot a comprehensive version in order to refine it for a larger, randomised, controlled trial.

Models of care

The patients readily responded to the invitation to attend the first clinic, but attendances at follow-up clinics were less consistent. This often occurred because the practice staff had undertaken a range of interventions following the initial clinic assessment, which made the three-month visit unnecessary. If a

clinic model is to be adopted, six-month reviews might be more appropriate. The opportunistic review system, however, proved more suitable for this group of patients. Although many patients were unable to keep specific appointments for the follow-up checks, they were frequent attenders and could be reviewed as and when they consulted. An opportunistic model of care is a practical alternative to the primary-care clinic, but previous experience suggests that they are time consuming and not feasible in routine surgery appointments (Kendrick *et al*, 1995). If reimbursement is extended beyond the monitoring of asthma and diabetes to the long-term mentally ill patients in general practice it would be possible to develop a proactive, opportunistic approach with the help of other practice staff. Longer appointments should be allowed for when the patient makes contact. Safeguards to alert staff to patients who have failed to attend for some time would also be required. General practice computers can readily be programmed to perform these tasks. This could eventually prove to be a more realistic way of monitoring patients with less common disorders and those who may be unable to comply with more organised care.

Surveillance in primary care

A prevalence of 4.2 per 1000 is similar to an estimate in London of 5.2 per 1000 for schizophrenia (Campbell *et al*, 1989). The shortfall does not mean that patients with non-affective psychoses were missed in these practices. Other work has demonstrated that general practice computer systems accurately classify patients with severe mental illness (Nazareth *et al*, 1993b). Rather, it is unlikely that all patients with non-affective psychosis are registered with GPs. Those in touch with GPs are more likely to be patients with long-term disability who live in fairly stable social circumstances (Nazareth *et al*, 1995). Most of the patients in this study were living either on their own or in a special hostel and were receiving benefits for long-term illness or disability. Thus, this model of general-practice care may not reach patients who lead less organised lives or those who are homeless, as they are less likely to register with family doctors (Weller *et al*, 1987).

Many of the patients in this study had little contact with the mental health services and the introduction of structured care did not change this situation. Although this may be appropriate for patients with less active problems, there is a need for closer links between GPs and secondary-care services (Royal College of Psychiatrists & Royal College of General

Practitioners, 1993). General-practice surveillance systems such as this one will be fully effective only if there is closer liaison between the primary-care and specialist mental health services.

Limitations

Our resources did not allow for blind assessments of outcome, which may have led to a bias favouring the intervention group. It is difficult, however, to maintain blindness in studies of this kind, as patients often provide clues to their treatment, even when asked not to do so (Carroll *et al*, 1994). Detailed research assessments may also influence outcome and reduce differences between patients in the intervention and control groups.

The use of several outcome variables can result in a chance finding when no real difference exists. We compared the intervention and control patients on 14 outcome variables. Three were found to be significant at the 5% level, when one in 20 would have been expected by chance. The limited numbers in a pilot study also means that real differences in outcome may be missed. The power of this study (with adjustment for non-parametric analysis) to detect a difference in outcome on the GAS between the intervention and control groups, at the 5% level of significance, was 65%.

Conclusions

Little in the way of organised primary care is offered to patients with chronic psychoses (Nazareth *et al*,

Clinical implications

- There is a need for more consistent care of patients with non-affective psychosis in general practice.
- The use of check-lists to monitor patients with non-affective psychosis is possible in general practice.
- Significant changes in clinical state and contact rate with GPs were observed in patients receiving such an intervention.

Limitations

- Practices were not randomly assigned to the intervention and control conditions.
- The researcher was not blind to the assessments of subjects.
- These findings are limited to the clinical care offered in two London general practices.

1993a) Structured check-lists provide a practical approach and our results show that participation is at least as good as that of patients attending psychiatric out-patient or community services (Strathdee *et al*, 1990). This approach complements the work of specialist mental health services by facilitating early detection of problems and initiating appropriate referral. We intend to evaluate this model of care in a larger, randomised controlled trial using a system of opportunistic reviews.

With family: no change/normal functioning/occasional difficulty/functions only with difficulty/poor/don't know
Significant life events in last 3 months: present/absent

If present, provide details:

Discuss whether patient/carers have read the leaflet "Schizophrenia and the Family"

Carer Yes/No

Patient Yes/No

Details: Impressions, carers

Impressions, patient

Further information requested by carer/patient

Appendix

Practice nurses' review assessment

Presenting complaints (if any or follow up on previous complaints)

Contact with services

Last seen by (tick appropriate option):

Yes No How long ago?

Psychiatrist

Community psychiatric nurse

Social worker

Others (specify)

Drug treatment review

Depot given/not given/not on depot

Changes in drug therapy (name, dosage, duration)

Check for interactions note if any (bring to attention of GP)

Personal history

Weight

Smoking history

Alcohol (units/week)

Drug abuse (names and frequency of use)

Social update

Changes in accommodation: no change/bed and breakfast/council house/council flat/private house/private flat/hostel/group home/others

Satisfaction with accommodation/employment/living circumstances

Employment (if changed)

Living circumstances (if changed)

Changes in social functioning

At work: no change/normal functioning/occasional difficulty/functions only with difficulty/poor/don't know

At home: no change/normal functioning/occasional difficulty/functions only with difficulty/poor/don't know

With friends: no change/normal functioning/occasional difficulty/functions only with difficulty/poor/don't know

Leisure time: no change/normal functioning/occasional difficulty/functions only with difficulty/poor/don't know

Action taken (tick/circle appropriate option)

No action taken: Yes/No

Physical intervention: Yes/No Details

Counselling offered: Patient: Yes/No Details

Carer: Yes/No Details

Referral to: day centre/community psychiatric nurse/psychiatrist, out-patient department/psychiatrist, in-patient department/other (specify)

Other action taken: details

General practitioners' assessment

Physical

Respiratory status: well/not sure/unwell but not requiring treatment/unwell, requiring treatment

details:

Cardiovascular status: well/not sure/unwell but not requiring treatment/unwell, requiring treatment

details:

Overall rating of physical wellbeing: well/not sure/unwell but not requiring treatment/unwell, requiring treatment

details:

Mental assessment

Sleep: don't know/initial insomnia/reduced sleep/early morning waking/oversleeping

Anxiety: don't know/absent/possibly present/mild/moderate/severe

Depression: don't know/absent/possibly present/mild/moderate/severe

Auditory hallucinations: don't know/absent/possibly present/mild/moderate/severe

Thought disorder: don't know/absent/possibly present/mild/moderate/severe

Delusions: don't know/possibly present/certainly present but need to be elicited/spontaneous in interview/gross and intrusive

Affect blunted: don't know/possible/mild/moderate/severe

Side-effects of medication

Extrapyramidal: don't know/absent/mild/moderate/severe

Tardive dyskinesia: don't know/absent/mild/moderate/severe

Oversedation: don't know/absent/mild/moderate/severe

Global assessment

Risk of relapse: don't know/no risk/mildly at risk/
moderately at risk/severely at risk

Overall function: don't know/well/mildly impaired/mod-
erately impaired/severely impaired

List problem areas

- (1)
- (2)
- (3)
- (4)
- (5)

Action taken (tick/circle appropriate options)

No action taken: Yes/No

Physical intervention: Yes/No: details

Counselling offered: Patient: Yes/No details

Carer: Yes/No details

Changes in medication: Yes/No: details

Referral to: day centre/community psychiatric nurse/
psychiatrist, out-patient department/psychiatrist, in-
patient department/other (specify)

Mental health section invoked: section 2/3/4/other (specify)

Other actions: details

Acknowledgements

Irwin Nazareth was supported by a grant from the Medical Research Council. We thank Professor Andrew Haines for his helpful advice. We also thank all patients and practice staff who agreed to take part.

References

- AMERICAN PSYCHIATRIC ASSOCIATION (1987) *Diagnostic and Statistical Manual of Mental Disorders* (3rd edn, revised) (DSM-III-R). Washington, DC: APA.
- CAMPBELL, P. G., TAYLOR, J., PANTELIS, C., *et al* (1989) Studies of schizophrenia in a large mental hospital proposed for closure and in two halves of an inner London borough served by the hospital. In *International Perspectives in Schizophrenia; Biological, Social and Epidemiological Findings* (ed. M. Weller), pp. 185–203. London: John Libbey.
- CARROLL, K., ROUNSAVILLE, B. & NICH, C. (1994) Blind man's buff: effectiveness and significance of psychotherapy and pharmacotherapy blinding procedures in a clinical trial. *Journal of Consulting and Clinical Psychology*, **62**, 276–280.
- ENDICOTT, J., SPITZER, R. L., FLEISS, J. L., *et al* (1976) The Global Assessment Scale. A procedure for measuring overall severity of psychiatric disturbance. *Archives of General Psychiatry*, **30**, 766–771.
- GUY, W. (1976) *ECDEU Manual for Psychopharmacology*, pp. 534–537. Washington, DC: NIMH.
- GUYATT, G. S., SACKETT, D. S. & COOK, D. J. (1994) Users' guide to the medical literature. II. How to use an article about therapy or prevention. B. What were the results and will they help me in caring for my patients? *Journal of the American Medical Association*, **271**, 59–63.
- KENDRICK, T., BURNS, T. & FREELING, P. (1995) Randomised controlled trial of teaching general practitioners to carry out structured assessments of their long term mentally ill patients. *British Medical Journal*, **311**, 93–98.
- LARSEN, D. L., ATTKISSON, C. C., HARGREAVES, W. A., *et al* (1979) Assessment of client/patient satisfaction: development of a general scale. *Evaluation and Programme Planning*, **2**, 197–207.
- MUIJEN, M., MARKS, M., CONNOLLY, J., *et al* (1992) Home based care and standard hospital care for patients with severe mental illness: a randomised controlled trial. *British Medical Journal*, **304**, 749–754.
- NAZARETH, I., KING, M., HAINES, A., *et al* (1993a) Care of schizophrenia in general practice. *British Medical Journal*, **307**, 910.
- _____, _____, _____, *et al* (1993b) Accuracy of diagnosis of psychosis on a general practice computer system. *British Medical Journal*, **307**, 32–34.
- _____, _____ & MYERS, S. (1995) Care of schizophrenia in general practice—the general practitioner and the patient. *British Journal of General Practice*, **45**, 343–347.
- PARLOFF, M. B., KELMAN, H. C. & FRANK, J. D. (1954) Comfort, effectiveness and self-awareness as criteria of improvement in psychotherapy. *American Journal of Psychiatry*, **111**, 343–351.
- POCOCK, D. (1983) *Clinical Trials—A Practical Approach*. New York: John Wiley.
- ROBINSON, R. (1993) Count down to community care: moving ahead—community care in Gwent. *British Medical Journal*, **306**, 44–47.
- ROYAL COLLEGE OF PSYCHIATRISTS & ROYAL COLLEGE OF GENERAL PRACTITIONERS (1993) *Shared Care of Patients with Mental Health Problems: Report of a Joint Royal College Working Group*. London: RCGP/RCPsych.
- STEWART, A. L., HAYS, R. D. & WARE, J. E. (1986) The MOS short form general health survey. *Medical Care*, **26**, 724–735.
- STRATHDEE, G., KING, M., ARAYA, R., *et al* (1990) A standardised assessment of patients referred to primary care and hospital psychiatric clinics. *Psychological Medicine*, **20**, 219–224.
- TYRER, P. (1990) Personality disorder and social functioning. In *Measuring Human Problems: A Practical Guide* (eds D. F. Peck & C. M. Shapiro), pp. 119–142. Chichester: John Wiley.
- WELLER, B. G. A., WELLER, M. P. I., COKER, E., *et al* (1987) Crisis at Christmas. *Lancet*, **i**, 553–554.
- WING, J. K., COOPER, J. E. & SARTORIUS, N. (1974) *The Description and Classification of Psychiatric Symptoms: An Instruction Manual for PSE and Catego Systems*. London: Cambridge University Press.
- WOJCIK, J. D., GELENBERG, A. G., LABRIE, R. A., *et al* (1980) Prevalence of tardive dyskinesia in an outpatient population. *Comparative Psychiatry*, **21**, 370–380.
- WORLD HEALTH ORGANIZATION (1978) *The Ninth Revision of the International Classification of Diseases and Related Health Problems* (9th edn) (ICD-9). Geneva: WHO.

Irwin Nazareth, Department of Primary Care and Population Sciences, University College Medical School;
Michael King, University Department of Psychiatry, Royal Free Hospital School of Medicine, London;
Sharon See Tai, Department of Primary Care and Population Sciences, University College Medical School

Correspondence: Dr Irwin Nazareth, Department of Primary Care and Population Sciences, University College Medical School, Whittington Hospital, Archway Site, London N19 2QG

(First received 18 December 1995, final revision 8 May 1996, accepted 13 May 1996)