GP treatment decisions for patients with depression: an observational study

Tony Kendrick, Fiona King, Louise Albertella and Peter WF Smith

ABSTRACT

Background

GPs are prescribing more antidepressants than previously, but not in accordance with guidelines. The reasons why they prescribe are not well understood.

Aim

To explore associations between GP treatment and severity of depression, patients' life difficulties, previous history of illness and treatment, and patient attitudes.

Design

Observational study in two phases, 3 years apart.

Setting

Seven practices in Southampton, UK.

Method

Adult attenders who consented were screened for depression in the waiting room. After the consultation, the 17 participating GPs completed questionnaires on the perceived presence and severity of depression, patients' life difficulties, previous problems and treatment, patient attitudes towards antidepressants, and their treatment decisions. Patients returned postal questionnaires on sociodemographics, life events, physical health, and attitudes towards antidepressants.

Results

Of 694 patients screened in the two phases, the GPs rated 101 (15%) as depressed, acknowledged depression in 44 cases (6%), and offered treatment in 27 (4%), including antidepressants in 14 (2%). Offers of antidepressants were more likely in both phases where the GPs rated the depression as moderate rather than mild, and where they perceived a positive patient attitude to antidepressants. However, GP ratings of severity did not agree well with the validated screening instrument, and their assessments of patients' attitudes to treatment were only moderately related to patients' self-reports.

Conclusions

In line with current guidelines, GPs base prescribing decisions on the perceived severity of depression, taking patients' preferences into account, but they do not accurately identify which patients are likely to benefit from treatment. Better ways to assess depression severity and patient attitudes towards antidepressants are needed in order to target treatment more appropriately.

Keywords

antidepressants; depression; prescribing.

INTRODUCTION

Antidepressant prescriptions issued in England more than doubled between 1975 and 1998, to 23.4 million per year.[1] Rates have continued to increase, reaching 26.3 million in 2002.[2] Most of the increase is due to increased prescribing of selective serotonin reuptake inhibitors (SSRIs).[3] This may be due to exhortations to treat more depression, and to marketing of SSRIs for a wider range of disorders including anxiety. However, much of this may be inappropriate, as antidepressants are frequently prescribed for depressive symptoms below the threshold for major depression,[4–6] where it has not been established that they are more effective than placebo.[7] Conversely, only a third of patients with major depression receive recommended doses and duration of treatment.[8,9]

Attempts have been made to improve the management of depression through GP education. However, a large controlled trial of guideline-based education failed to improve the recognition of depression or use of antidepressants.[6,10] The results from that trial may be due to disparities between recommended best practice and GPs' beliefs about treatment.[11] Current guidelines recommend antidepressants if the patient has major depression,[7,12] regardless of any apparent cause. Recognition is more likely with increasing severity,[13] but anecdotally many GPs doubt the effectiveness of antidepressants when the patient is facing adverse life events or difficulties. Moreover, the great majority of the public believe

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depression is due to adverse life events, that antidepressants are addictive, and that counselling should be offered.[14] Therefore, GPs may not offer antidepressants because of perceived negative patient attitudes towards them. A previous history of depression and antidepressant treatment, and chronic physical illness are also potentially relevant factors.

It is important to determine whether these factors affect treatment decisions, to better understand GP behaviour. We set out to explore associations between GP treatment decisions and the severity of depression, patient demographic factors, adverse life events or difficulties, past history, and patient attitudes towards antidepressants, including both GP perceptions of these factors and patients' self-reports.

METHOD

The study was conducted in two phases: November 1999–March 2000, and December 2002–April 2003, in order to explore changes in prescribing over time. In phase I, two practices were recruited, with four and five GPs respectively, who all agreed to participate. In phase II an attempt was made to repeat the study in the two practices and to widen it to include a broader sample of GPs and patients. However, only one of the original practices agreed to participate in phase II (including three of the four GPs), the other practice withdrawing due to excessive workload. In addition, five out of seven other practices approached agreed to participate (including eight out of 15 GPs).

The GPs were aware that the study was designed to explore factors associated with the management of depression, but were not told the specific associations that were to be examined.

Patients were approached in the waiting room before their consultations, and were given an information sheet. Inclusion criteria were: aged over 18 years; not currently taking antidepressants or receiving psychiatric treatment; able to complete the screening questionnaire; and not suffering from terminal illness. Participating GPs checked their patient lists beforehand, to identify patients who should not be approached. In phase I the Southampton and South West Hampshire Local Research Ethics Committee (LREC) approved a direct approach to patients by the researcher. In phase II the LREC stipulated that the patients should first be given a slip by the receptionist asking if they were prepared to be approached by the researcher.

Consenting patients completed the Hospital Anxiety and Depression Scale (HADS) questionnaire[15] before their consultation and left it with the researcher. This has 90% sensitivity and 86% specificity for depression compared to the gold standard of a structured diagnostic interview.[16] The HADS depression sub-scale (HAD-D) correlates highly with the interview-based Montgomery–Asberg Depression Rating Scale, showing it to be a reliable measure of severity.[17]

The patients took away questionnaires to return later (postage free) on: sociodemographic factors (age, sex, ethnicity, marital status, education, employment, receipt of benefits); perceived financial difficulties (based on the question used in the British Household Panel Survey);[18] factors from the Brief Schedule of Threatening Life Events;[19] self-perceived physical health and long-standing physical illness; and on attitudes to antidepressants (from the Defeat Depression survey).[14]

Each patient gave the GP a slip to indicate their willingness to participate in the study, and the GP completed a brief questionnaire at the end of the consultation, rating whether the patient was depressed (0 = not depressed, 1 = not certain, 2 = mildly, 3 = moderately, and 4 = severely, using a cut-off of 2 or greater to define a GP case). All GP-defined cases were included in the study, whether or not they also reached the case threshold on the HAD-D of a score of 8 or more.

If the patient was considered to be depressed, the GP completed the rest of the questionnaire with details about action taken (no action, acknowledged depression with the patient, offered antidepressants, prescribed antidepressants, offered other treatment and if so what, and offered referral and if so to whom); whether the patient was suffering from adverse life events or difficulties (0 = no, 1 = not certain, 2 = yes, mildly, 3 = yes, significantly, divided for analysis into: not present [0], uncertain [1] and present [2 and 3]); the patient's attitude towards taking antidepressants (0 = strongly negative, 1 = negative, 2 = don't know, 3 = positive, and 4 = strongly positive, divided into negative [0 or 1],

How this fits in

GPs are prescribing more antidepressants, but the reasons why they prescribe have not been investigated systematically. Previous studies suggest antidepressants are poorly targeted at those patients most likely to benefit. In line with guidelines, GPs base prescribing decisions on the perceived severity of the depression, taking patients' preferences into account, but they are poor at rating severity compared to a standardised measure, and only moderately accurate in assessing patients' attitudes to treatment when compared to patients' self-reports. Better ways to assess the severity of depression and patient attitudes are needed in order to target treatment more appropriately.

Table 1. Practices, practitioners and patients taking part in the two phases of the study.

	Phase I	Phase II
Number of practices recruited	2	6[a]
Total number of GPs in recruited practices	9	18[b]
Number of GPs taking part in study	9	11[c]
Total number of patients recruited and screened	437	257
Mean number recruited per session, from mean number of appointments		
Morning surgeries	12/18	5/15
Afternoon surgeries	8/15	6/13
All surgeries	10/17	6/14
HAD-D scores (%)		
<8	379 (87)	215 (84)
8–10	40 (9)	27 (10)
≥11	18 (4)	15 (6)
GP rating of the presence of depression (%)[d]		
Not depressed	364 (83)	204 (79)
Not certain	12 (3)	13 (5)
Mildly depressed	43 (10)	28 (11)
Moderately depressed	18 (4)	12 (5)
Number who returned the questionnaire (%)	318 (73)	184 (72)
Age range (years)	18–92	18–90
Mean age (years)	44.7	50.4
Sex (%)		
Male	168 (38)	112 (44)
Female	269 (62)	145 (56)
Ethnicity (%)[e]		
White	306 (96)	178 (97)
Other	12 (4)	6 (3)
Marital status (%)[e]		
Single	118 (37)	37 (20)
Married	143 (45)	101 (55)
Previously married	57 (18)	46 (25)
Education (%)[e]		
Up to age 18 years	243 (76)	160 (87)
Beyond 18 years	75 (24)	24 (13)
Employment (%)[e]		
Paid employment/looking after home/retired	265 (83)	156 (85)
In full-time education	42 (13)	8 (4)
Unemployed	11 (3)	5 (3)
Unable to work due to long-term sickness	8 (2)	15 (8)
Receipt of benefits (%)[e]		
No	282 (89)	134 (73)
Yes	31 (10)	40 (22)
Perceived financial difficulties (%)[e]		
Living comfortably	197 (62)	108 (59)
Getting by	101 (32)	52 (28)
Finding it difficult	17 (5)	13 (7)
Self-perceived physical health (%)[e]		
Very good/good	214 (67)	109 (59)
Fair	89 (28)	62 (34)
Bad	11 (3)	13 (7)
Long-standing physical illness (%)[e]		
No (%)	216 (68)	120 (65)
Yes (%)	93 (29)	64 (35)

[a]Includes one practice that took part in phase I. [b]Includes four GPs who took part in phase I. [c]Includes three GPs who took part in phase I. [d]Data available only for those for whom the GP completed an encounter form. [e]Data available only for those who returned the questionnaire and responded to the question. HAD-D = Hospital Anxiety & Depression Scale, depression sub-scale.

uncertain [2] and positive [3 and 4] for analysis); previous mental health problems; previous antidepressant treatment; how well the doctor knew the patient; and chronic physical health problems. Acknowledgement meant having discussed possible depression with the patient, either at the index consultation or on another occasion, but within the current episode. Patients' notes were checked 2 months after screening, for any subsequent diagnosis or treatment for depression.

Data were analysed using the statistical package SPSS.

The Pearson χ^2 exact test was used to determine associations between offers of antidepressants and:

- GP ratings of: severity of depression; presence of adverse life events or difficulties; patient attitudes towards antidepressants; previous mental health problems; previous antidepressant treatment; how well the doctor knew the patient; chronic physical illness, and;
- the patient measures of: severity according to HAD-D score; age; sex; education level; employment status; perceived financial difficulties; receipt of benefits; reported adverse life events; perceived physical health, and the questionnaire measures of the patient's attitudes towards antidepressants.

Confidence intervals (CIs) for the differences between groups of patients in the proportions offered antidepressants were calculated using StatXact-5, based on the standardised statistic and inverting a two-sided test.

RESULTS

Table 1 shows the numbers of practices, GPs and patients participating in the two phases. In phase I an average of seven patients out of 17 per surgery session were not recruited (two were already diagnosed as depressed, two were approached previously, two were too young, one declined to participate). These data were not available to the researcher in phase II. Mean numbers recruited per surgery were lower in phase II where the receptionists were required to ask patients whether they were prepared to be approached by the researcher. The GPs completed encounter forms for 425 (97%) patients screened in phase I and 244 (95%) in phase II. There was no significant difference in HAD-D scores between patients who did and did not return their postal questionnaires.

Table 1 shows that there were more single people, and more in full-time education in phase I (the two practices were near the university and had significant numbers of student patients). Otherwise,

there were few differences between the phases in sociodemographic factors and perceived physical health.

Ratings of depression according to the HAD-D, and according to the GPs

Similar proportions of patients screened were found to be depressed on the HAD-D (cut-off ≥8) in both phases: 58/437 (13%) and 42/257 (16%) respectively (Table 1). The GPs also rated similar proportions as depressed in both phases: 61/425 (14%) and 40/244 (16%). However, GP ratings were not very accurate when compared to the screening questionnaire (Table 2). GPs' sensitivity against the HAD-D (≥8) was 19/57 (33%) in phase I and 12/40 (30%) in phase II, and specificity 326/368 (89%) and 176/204 (86%) respectively (Table 2). Examination of patients' records showed that one more patient was diagnosed as depressed in phase I within 2 months of the index consultation, and none in phase II.

Treatment decisions among the GP diagnosed cases

In phase I the GPs acknowledged depression in 30 cases (49%), offered antidepressants in five (8%), and follow-up or referral for counselling in 10 (16%). Corresponding numbers for phase II were: acknowledged 14 (35%), offered antidepressants nine (22%), and follow-up or counselling three (7%). Of five patients offered antidepressants in phase I, two scored 0–7 on the HAD-D (major depression unlikely), two scored 8–10 (possible major depression), and only one scored 11 or more (probable major depression). Corresponding figures among the nine cases offered antidepressants in phase II were 4, 4, and 1 respectively.

Associations between antidepressant offers and GP perceptions

Antidepressants were significantly more likely to be offered in both phases where the GPs perceived the depression to be moderate rather than mild; in no case was it rated severe (Table 3). In phase I the proportion of patients offered antidepressants was 4/18 with moderate perceived severity (22%) and 1/43 with mild (2%), a difference of 20 percentage points (95% CI = 4 to 44). The corresponding figures for phase II were 7/12 with moderate (58%) and 2/28 with mild (7%); difference 51 points (95% CI = 21 to 76).

Antidepressants were also offered significantly more frequently in both phases where the GPs perceived positive patient attitudes towards antidepressants, compared to negative or uncertain attitudes. In phase I the proportion offered antidepressants was 3/13 with positive perceived attitudes (23%) and 2/48 with negative/uncertain attitudes (4%); a difference of 19 percentage points (95% CI = 1 to 47). The corresponding figures for phase II were 5/10 with positive (50%), and 4/30 with negative/uncertain attitudes (13%); difference 37 points (3 to 66).

Offers of antidepressants were also more likely in phase I where the GPs perceived that adverse life events or difficulties were not present, and where the patient had had antidepressants previously, but these associations were not found in phase II (Table 3). Moreover, the number of associations examined means that findings with a significance value of close to $P = 0.05$ should be treated as weak evidence only, as they may have arisen by chance.

Table 2. GP diagnoses of depression compared with the results of the HAD-D.

GP diagnosis of depression	Whether or not a case on the HAD-D		
Phase I	Yes	No	Total
Yes	19	42	61
No	38	326	364
Total	57	368	425
Phase II	Yes	No	Total
Yes	12	28	40
No	28	176	204
Total	40	204	244

HAD-D = Hospital Anxiety and Depression Scale, depression sub-scale.

Associations between antidepressant offers and patients' self-reports

Of the 61 patients in phase I and 40 in phase II who were rated depressed, 41 (67%) and 26 (65%) respectively returned postal questionnaires, giving only a small sample for the analysis of 15 possible associations between patient measures and offers of treatment. Weak evidence was found for two possible associations. In phase I antidepressants were offered more frequently to patients who rated them as very effective for depression, compared to those rating them fairly/not very effective ($P = 0.031$), but this was not significant in phase II ($P = 0.255$). In phase II antidepressants were offered less frequently to patients who rated antidepressants as very addictive ($P = 0.044$), but this was not significant in phase I ($P = 0.072$).

GP perceptions of patients' attitudes

Most of the patients considered antidepressants to be very or fairly addictive: 22 of 35 (63%) in phase I, and 21 of 23 (91%) in phase II (Table 4). Comparing GP perceptions with patients', in phase I GPs perceived negative attitudes towards antidepressants in 10

Table 3. GPs' perceptions and offers of treatment for depression.

Phase of study	Offered no treatment *n* (%)	Offered anti-depressants *n* (%)	Offered follow-up or referral *n* (%)	Total	*P* value[a]
Phase I					
Perceived severity of depression					
Moderate	10 (56)	4 (22)	4 (22)	18	
Mild	36 (84)	1 (2)	6 (14)	43	0.019
Perceived life events or social problems					
Present	40 (77)	3 (6)	9 (17)	52	
Uncertain	5 (100)	0	0	5	
Not present	1 (25)	2 (50	1 (25)	4	0.030
Perceived attitude to antidepressants					
Positive	6 (46)	3 (23)	4 (31)	13	
Not certain	17 (90)	0	2 (11)	19	
Negative	23 (79)	2 (7)	4 (14)	29	0.045
Previous mental health problems					
Yes	26 (70)	4 (11)	7 (19)	37	
No/uncertain	20 (83)	1(4)	3 (13)	24	0.490
Previous treatment with antidepressants					
Yes	15 (17)	4 (16)	6 (24)	25	
No/uncertain	31 (86)	1 (3)	4 (11)	36	0.045
Previously known to the doctor					
Well known	35 (76)	5 (11)	6 (13)	46	
No/not well	11 (79)	0	3 (21)	14	0.374
Chronic physical health problems					
Yes	28 (78)	3 (8)	5 (14)	36	
No	18 (72)	2 (8)	5 (20)	25	0.901
Phase II					
Perceived severity of depression					
Moderate	3 (25)	7 (58)	2 (17)	12	
Mild	25 (89)	2 (7)	1 (4)	28	0.001
Perceived adverse life events or difficulties					
Present	20 (67)	8 (27)	2 (7)	30	
Uncertain	2 (100)	0	0	2	
Not present	6 (75)	1 (13)	1 (13)	8	0.847
Perceived attitude to antidepressants					
Positive	3 (30)	5 (50)	2 (20)	10	
Not certain	7 (88)	0	1 (13)	8	
Negative	18 (82)	4 (18)	0	22	0.004
Previous mental health problems					
Yes	8 (53)	5 (33)	2 (13)	15	
No/uncertain	0 (80)	4 (16)	1 (4)	25	0.185
Previous treatment with antidepressants					
Yes	10 (59)	6 (35)	1 (6)	17	
No/uncertain	18 (78)	3 (13)	2 (9)	23	0.210
Previously known to the doctor					
Well known	23 (68)	9 (27)	2 (6)	34	
No/not well	5 (83)	0	1 (17)	6	0.243
Chronic physical health problems					
Yes	21 (78)	4 (15)	2 (17)	27	
No	7 (54)	5 (39)	1 (8)	13	0.236

[a]*Pearson χ^2 exact test.*

(45%) of these 22 cases, and were uncertain in another 11 (50%). In phase II the corresponding proportions were 14/21 (67%) and 3/21 (14%) respectively. Overall, therefore, the GPs' perceptions of negative patient attitudes were, more often than not, in agreement with patients' self-reports about addictiveness.

However, at the same time, most patients thought antidepressants were very or fairly effective: 27 of 34 (79%) in phase I, and 17 of 22 (77%) in phase II. In phase I the GPs perceived positive attitudes towards antidepressants in 4 (15%) of these 27 cases, and were uncertain in another 13 (48%); the corresponding proportions were 3/17 (18%) and 3/17 (18%) respectively. Overall, therefore, the GPs' perceptions of negative patient attitudes were usually not in agreement with patients' self-reports about effectiveness (Table 4).

DISCUSSION

Summary of main findings

It is notable that the GPs did not even discuss depression with 57 of the 101 diagnosed cases, let alone offer treatment. Among the 44 patients with whom they did discuss it, only 14 were offered antidepressants, and 13 follow-up or counselling.

Perceived severity of depression. Immediate offers of antidepressant treatment were more likely with greater perceived severity, in line with guideline recommendations.[7] However, GPs' perceptions of severity did not correspond to severity on the HAD-D questionnaire. In line with other studies, the GPs made no diagnosis in more than half of patients with possible major depression.[10,20–22] Conversely, more than two thirds of the patients diagnosed as depressed scored below 8 on the HAD-D, and six of the 14 offers of antidepressants were to these patients, who are unlikely to be suffering from major depression given the high sensitivity of the HAD-D.[16] Clearly, the GPs were not targeting detection and treatment accurately on those patients who are most likely to benefit according to current guidelines.[7]

Patient attitudes. Offers of antidepressants were more likely where patient attitudes towards treatment were perceived to be positive, and GP perceptions of negative attitudes did accord moderately well with patient questionnaire responses about the addictiveness of antidepressants. At the same time, most patients also thought that antidepressants were effective, and GP perceptions of attitudes accorded less well with responses about effectiveness. This suggests that GPs put more weight on addictiveness than on effectiveness when assessing patients' attitudes towards antidepressants. However, studies of other clinical topics have shown significant disparities between patients' attitudes towards drug treatment and GPs' perceptions of their attitudes.[23,24] It may be that more patients might be persuaded to take antidepressants if they can be reassured about

Table 4. Patient attitudes to antidepressant treatment: GP perceptions compared with patients' self-reports.

Patients' responses to the postal questionnaires	GPs' perceptions of patients' attitude towards antidepressants			
	Positive (%)	Not certain (%)	Negative (%)	Total (%)
Phase I				
How addictive are antidepressants?				
Very/fairly	1 (5)	11 (50)	10 (45)	22 (100)
Not very/not at all	5 (38)	3 (23)	5 (38)	13 (100)
Total	6 (17)	14 (40)	15 (43)	35 (100)
How effective are antidepressants?				
Very/fairly	4 (15)	13 (48)	10 (37)	27 (100)
Not very/not at all	1 (14)	1 (14)	5 (71)	7 (100)
Total	5 (15)	14 (41)	15 (44)	34 (100)
Phase II				
How addictive are antidepressants?				
Very/fairly	4 (19)	3 (14)	14 (67)	21 (100)
Not very/not at all	1 (50)	0	1 (50)	2 (100)
Total	5 (22)	3 (13)	15 (65)	23 (100)
How effective are antidepressants?				
Very/fairly	3 (18)	3 (18)	11 (65)	17 (100)
Not very/not at all	2 (40)	0	3 (60)	5 (100)
Total	5 (23)	3 (14)	14 (64)	22 (100)

their lack of addictiveness. We did not collect data on how often the GPs tried to persuade their patients to take antidepressants, and so cannot judge the likely success of doing so. However, there is evidence that adherence to antidepressant treatment, and outcome, can be improved through 'compliance therapy' given by practice nurses, at least among patients with major depression willing to be started on treatment by their GPs.[25]

Differences between the two phases. Treatment with antidepressants tended to be offered more frequently in phase II. The results also suggested that in phase I the GPs were less likely to offer antidepressants in the face of adverse life events or difficulties, unlike in phase II. We cannot say, however, whether this reflects a trend over time towards increased antidepressant prescribing,[1] or to offer them more frequently even in cases where the depression seems 'understandable', which would be in accordance with current guidelines.[7] The differences may simply reflect differences in the patients recruited, and their needs for treatment, or differences in behaviour between the GPs recruited, in the two phases. Unfortunately, we were not able to study all the phase I GPs again 3 years later, as we had hoped, and so had too small a sample of GPs to examine changes in behaviour over time.

Strengths and limitations of the study

This was an exploratory study and was not designed to test specific hypotheses. The sample size was limited by the time available for data collection and only 101 management decisions were studied. Where we have found significant associations with offers of antidepressants, the CIs around the differences found are wide, reflecting the small sample size. We may have failed to identify other associations between treatment decisions and patient characteristics because of this.

We did not include some potentially relevant factors, such as possible interactions with other medications, or the availability of alternative treatments. The doctors were aware that their management was being studied, which may have affected their behaviour, although the low levels of recognition and intervention were in line with other, retrospective, studies.[4,6,10] They may not be representative of GPs generally, however, and replication is needed among a bigger sample of patients and GPs with sufficient power to test the hypotheses generated by this study. A strength of the study is that treatment decisions were studied prospectively. Therefore, GP reasons for prescribing were not subject to recall bias.

Comparison with existing literature

Compared to GP recognition of depression, relatively little research has been done into GP treatment decisions. An earlier UK study, comparing a group of patients treated with antidepressants with a group diagnosed as depressed but not given antidepressants, found the former were more severely depressed, but suggested that the degree of stress of the patient's circumstances did not appear to

influence GPs' decisions.[4] Our results are in line with that finding. However, the earlier study was a retrospective comparison of two groups already established on treatment. A strength of our study is that individual GP treatment decisions were studied at the point of diagnosis.

There is not much research evidence in primary care on which to base decisions about treatment in the face of life difficulties, and it is inconsistent. One UK study suggested that greater severity predicted a response to antidepressants regardless of social factors, but was not set up to determine the relative importance of these factors.[26] Others have found that socioeconomic deprivation predicts the prevalence of depression,[27] that persistent depression is associated with continuing social problems,[28] and that recovery is associated not with antidepressant treatment, but with a reduction in life difficulties.[29]

Implications for future research and practice

Our results suggest that GPs base their decisions about offering antidepressants on the perceived severity of their patients' depressive symptoms, in line with current clinical practice guidelines, but do not accurately identify those most likely to benefit. Therefore, to improve the management of depression we need better ways of assessing which patients are likely to benefit. GPs' decisions also seem to be affected by their patients' attitudes towards antidepressant treatment. We cannot say from this study to what extent GPs try and influence these attitudes.

More research is needed to determine how severity and social factors affect the response to treatment for depression in primary care settings. Further in-depth qualitative research is also needed into GP prescribing decisions in order to understand their behaviour and how it might be influenced.

Ethics committee

The study was approved by the Southampton and South West Hampshire Local Research Ethics Committee, Reference number 252/02

Competing interests

None

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