Antidepressant Medication Management and Health Plan Employer Data Information Set (HEDIS) Criteria: Reasons for Nonadherence

Kenneth A. Kobak, Ph.D.; Leslie vH. Taylor, M.D.; David J. Katzelnick, M.D.; Nevin Olson, B.S.; Peter Clagnaz, M.D.; and Henry J. Henk, M.S.

Background: While nationwide data have found that many patients do not meet the National Committee for Quality Assurance uniform standards for successful antidepressant treatment, reasons for this failure are not well understood. We examined the reasons for this failure through a systematic chart review.

Method: A chart review was conducted on a random sample of 249 health maintenance organization patients who failed 1 or more of the 3 Health Plan Employer Data Information Set criteria (i.e., 3 follow-up visits or adequate duration of acute or continuation phase treatment).

Results: The most common reason for visits failure (N = 192) was that the patient restarted a previously prescribed successful antidepressant (N = 30, 16%). In 23 patients (12%), the patient had a visit with the prescribing provider, but mental health was not coded or documented in the case notes. Twenty-one percent (N = 40) were misclassified as not having 3 visits. The most common reasons for misclassification were mental health was discussed but not coded (N = 16, 8%) and wrong start dates due to use of medication samples (N = 10, 5%). Patient nonadherence was the most common reason for failure to meet adequate acute (N = 109) and continuation (N = 99) phase duration of treatment (13% and 24%, respectively); only 9% stopped taking medication in the acute phase due to side effects. Twenty-five percent of patients had told their doctor they were taking their medication while the pharmacy database found they were not.

Conclusion: A large discrepancy between patients' actual and reported compliance was found and may in part account for physicians' inability to detect and thus address this issue. Patients' restarting a previous medication is common and warrants discussion regarding differential need for visit frequency.

(J Clin Psychiatry 2002;63:727–732)

Received Feb. 25, 2002; accepted May 3, 2002. From the Dean Foundation for Health, Research and Education, Middleton, Wis.

Funded in part by an unrestricted educational grant from GlaxoSmithKline, Philadelphia, Pa.

Dr. Kobak has been a consultant for Boehringer-Ingelheim, Merck, Organon, Roche, and Wyeth and has received grant/research support from Pfizer. Dr. Taylor has received grant/research support from Bristol-Myers Squibb, Drug Abuse Sciences, Eisai, Forest, Glaxo, Hemispherx, Janssen, Lilly, Novartis, Oy Contral, Organon, Pfizer, Parke-Davis, Pharmacia, Shire, SmithKline Beecham, Solvay, Somerset, Synthelabo, and Wyeth. Dr. Katzelnick has been a consultant for Abbott, MacArthur Foundation, Merck, Organon, Pfizer, Robert Wood Johnson Foundation, and Wyeth-Ayerst; has received grant/research support from Abbott, Astra, GlaxoSmithKline, Merck, Novartis, Pfizer, and Solvay; and has been a member of the speakers' bureau for Abbott, Forest, GlaxoSmithKline, Lilly, Novartis, Pfizer, and Pharmacia. He is also a principal at Healthcare Technology Systems, Inc.

The authors gratefully acknowledge the contributions of Mary Lokken, R.N., and Sandra Polencheck, R.N., for conducting chart reviews, and Lynn Ann Meyer for study coordination.

Corresponding author and reprints: Kenneth A. Kobak, Ph.D., Dean Foundation for Health, Research and Education, 2711 Allen Blvd., Middleton, WI 53562 (e-mail: kobak_ken_a@ssmhc.com).

While the efficacy of antidepressant medications has been demonstrated in double-blind placebo-controlled trials, documentation of their effectiveness in clinical settings has been less substantial. Primary care physicians have long been recognized as the main providers of antidepressant treatment.[1] However, primary care physicians have been criticized for treatment at subtherapeutic doses[2,3] and for inadequate duration.[2,4] The percentage of primary care patients who stop taking their prescribed antidepressant medications within 3 weeks ranges from 20% to 59%.[2,5] While no patient characteristics have been identified that differentiate between those receiving adequate versus inadequate treatment,[6] both class of drug (i.e., selective serotonin reuptake inhibitors) and type of provider (i.e., psychiatrist) have been found to be associated with a significantly higher percentage of treatments of adequate dose and duration.[6,7] However, patients who fail to receive adequate dose and duration with their initial antidepressant are unlikely to receive a second antidepressant treatment regardless of type of provider (30% and 22% for psychiatry and primary care, respectively).[7] Reasons for early termination include negative attitudes toward psychiatric treatments, development of unpleasant

side effects, failure to appreciate that antidepressant drugs take several weeks to work, and a belief that pills are not the answer to depressions associated with negative life events.[2,8] Interventions, such as utilizing a treatment coordinator who contacts patients by phone during the first few weeks of treatment and a system for psychiatric consultation tied to systematically obtained outcome measures, have been found to increase the likelihood of successful treatment of depression in primary care.[9–11]

To more systematically evaluate the effectiveness of antidepressant treatment in clinical settings, a uniform set of criteria has been developed by the National Committee for Quality Assurance as a part of the Health Plan Employer Data Information Set (HEDIS) performance measures for the managed care industry.[12] The HEDIS specifications are in part based on the treatment guidelines developed by the Agency for Health Care Policy and Research for the identification and treatment of depression in primary care.[13–15] These guidelines identify 3 stages in the treatment of depression. The "acute" stage is aimed at relieving all depressive symptoms. If a relapse occurs within 6 months of remission, a relapse is declared. The "continuation" phase is aimed at preventing this relapse. Once a patient has been asymptomatic for 6 months, a recovery is declared. Once a recovery is declared, treatment for most patients may be stopped. The "maintenance" phase follows recovery and is aimed at preventing a recurrence of depression. Recurrences occur in 50% of cases within 2 years after continuation treatment.[16]

HEDIS provides 3 measures of successful pharmacologic treatment of depression: (1) during the 12-week acute antidepressant treatment phase, the percentage of patients with a new episode of depression who had at least 3 follow-up contacts with a primary care or mental health practitioner, coded with a mental health diagnosis (at least 1 of the follow-up visits must be with a prescribing provider); (2) the percentage of patients who continued to take an antidepressant during the entire 12-week acute phase; and (3) the percentage of patients with a new episode of depression who continued to take an antidepressant for at least 6 months (i.e., through the continuation phase of treatment).

A previous analysis of compliance with HEDIS criteria for antidepressant medication management in 1998 (Dean Health Plan, Middleton, Wis., unpublished data) found that 39.2% of patients met the HEDIS requirement in the area of optimal practitioner contacts for medication management (i.e., 3 or more follow-up visits with a primary care or mental health practitioner [at least 1 of which is a prescribing practitioner] within 12 weeks after a new diagnosis of depression). In the same study, 62.9% met HEDIS criteria for effective acute phase treatment, i.e., continuous antidepressant treatment for 84 days (12 weeks), and 41.3% met HEDIS criteria for effective continuation phase treatment, i.e., continuous antidepressant treatment for 180 days. Nationwide, these numbers were 23%, 54%, and 38%, respectively, for the same time period.

While the nationwide data have shown that many patients being treated with antidepressant medications do not meet these HEDIS standards for follow-up contacts and length of treatment, the research literature is sparse in providing an answer to the question of why this is so. Possible reasons include remission of symptoms, patient failure to fill prescriptions, physician failure to prescribe a second treatment if the first one fails, telephone contacts that are not captured in the database, and use of samples that are not captured in the pharmacy database. Such information is impossible to obtain by the standard methodology of examining pharmacy and utilization claims databases, but may be better understood with a thorough chart review. In one such study of psychiatric patients, Clagnaz et al.[17] performed a chart review of 130 patients who failed to receive a second treatment following an inadequate initial antidepressant trial. The most common reasons for inadequate treatment were patient noncompliance (76%) and discontinuation of health maintenance organization (HMO) coverage (8%). Forty-five percent of those with inadequate treatment had a formal Axis II diagnosis, compared with a 14% prevalence rate among other psychiatric outpatients. Two thirds were not clinically improved at the time their antidepressant was stopped.

The current study is designed to examine the reasons for noncompliance with HEDIS criteria for depression treatment through a systematic chart review of patients who failed 1 or more HEDIS criteria. The long-term goal is to address and correct these problems once they are identified so that a greater percentage of depressed patients can receive successful antidepressant treatment and obtain relief from the suffering that this illness causes.

METHOD

Data covering the period from Jan. 1 to Dec. 31, 1999, were downloaded from the Dean Health Plan pharmacy and HMO claims databases to the Dean Foundation computer system. Dean Health Plan is a large (N = 200,000) mixed-model midwestern HMO with a broad cross-section of patients. A random sample of 257 patients who failed to meet HEDIS criteria for 1 or more of the 3 definitions of successful antidepressant medication management was selected for a chart review (i.e., approximately 100 per definition; some patients met criteria for more than 1 definition). This sample included both patients treated in primary care and patients treated by psychiatrists.

Each chart was reviewed by 1 of 2 research coordinators. To establish and maintain interrater reliability, the first 5 charts were reviewed as a group to identify problem areas and make modifications to the rating form. After

that, a total of 28 charts were re-reviewed by the study physician for cross-validation. Three case review conferences were held during the trial to review and discuss cases where there were discrepancies between the findings of the research coordinator and the study physician. This ongoing monitoring was used to help prevent "rater drift" and ensure ongoing calibration. Both medical charts and psychiatric charts were reviewed when indicated.

RESULTS

Study Flow and Sample Characteristics

Of 257 charts selected for review, 8 could not be found, leaving a total of 249 charts reviewed. These 249 charts yielded 192 patients who failed to meet the visits criteria, 109 patients who failed to meet criteria for acute duration of antidepressant treatment, and 99 who failed to meet criteria for continuation phase treatment. Some patients failed to meet more than 1 criterion (Table 1). Of these 249 patients, 90 failed to meet criteria for both visits and acute phase, 61 failed to meet criteria for both visits and continuation phase, 41 only failed to meet criteria for visits, 19 only failed to meet criteria for acute phase duration, and 38 only failed to meet criteria for continuation phase duration. The sample was 70% female, and the mean ± SD age was 43 ± 13 years (range, 18–84 years). The most common types of physician providers for the initial antidepressant prescription were family practice (33.3%), followed by internal medicine (30.5%), psychiatry (18.6%), and obstetrics/gynecology (OB/GYN) (1.6%). Physician specialty type was unknown in 2.8%.

Visits

Of 192 patients identified as failing to meet visits criteria, 152 (79.2%) were actually determined to have fewer than 3 visits through medical record review. Forty patients (20.8%) did have 3 visits that met HEDIS criteria according to medical record documentation. The reasons these visits were not identified through HMO claims were as follows: mental health was discussed but not coded as the billing diagnosis (N = 16), wrong start date due to use of samples (N = 10), visits provided by an out-of-plan provider (N = 6), wrong medication start date for reasons other than use of samples (N = 4), and other (N = 4).

Of 152 patients documented through medical record review as failing the visits criteria, the most common reason was that the patient was restarting a previously prescribed, successful antidepressant (19.7%, N = 30). Physicians may have felt there was a decreased need for visits in these cases. The other most common reasons for failing to meet visits criteria were as follows: patient had 3 or more visits but mental health was not documented as discussed or coded as the billing diagnosis (15.1%, N = 23), physician failed to schedule for unknown reasons (15.1%, N = 23), and physician failed to schedule because the patient was documented as doing well (14.5%, N = 22). All identified reasons for failure to have 3 follow-up visits are listed in Table 2.

Table 1. Type of HEDIS Criteria Failed in 249 Charts Selected for Review[a]

Criteria	Visits[b]	Acute[c]	Continuation[d]	Total[e]
Visits	41	90	61	192
Acute	90	19	...	109
Continuation	61	...	38	99
Total	192	109	99	400

[a]Abbreviation: HEDIS = Health Plan Employer Data Information Set.
[b]Failure to have at least 3 follow-up contacts with a primary care or mental health practitioner, coded with a mental health diagnosis (at least 1 of the follow-up visits must be with a prescribing provider).
[c]Failure to have continuously taken an antidepressant during the entire 12-week acute treatment phase.
[d]Failure to have continuously taken an antidepressant during the 6-month continuation phase.
[e]Some charts met criteria for both visits and either acute or continuation, so grand total (N = 400) exceeds total charts reviewed (N = 249).

Table 2. Reasons for Failure to Have 3 Follow-Up Visits (N = 192)

Variable	N	%
Reason for failure		
Physician failed to schedule because restarted previous medication	30	15.6
Patient had visit, but mental health was not discussed or mental health billing code was not used	23	12.0
Physician failed to schedule: reason unknown	23	12.0
Physician failed to schedule: patient doing well	22	11.5
Physician scheduled visit: patient failed to show	14	7.3
Unknown	13	6.8
Physician told patient to schedule visit; patient never scheduled	11	5.7
Other	9	4.7
Physician failed to schedule: other	5	2.6
Patient lost to follow-up	2	1.0
Total	152	79.2
Misidentified failure[a]		
Reason for misclassification		
Mental health discussed, but mental health billing code not used	16	8.3
Wrong medication start date due to samples	10	5.2
Out-of-plan provider	6	3.1
Wrong medication start date: other reason	4	2.1
Other	4	2.1
Total	40	20.8

[a]Chart review found patients were misclassified; patients had met 3 visits criteria.

Duration

Of the patients identified as failing to meet acute or continuation phase treatment duration criteria through HMO claims, 40.4% of acute phase patients (44/109) and 32.3% of continuation phase patients (32/99) had medical record documentation of appropriate treatment duration (84 and 180 days, respectively). This information was based on medical record documentation indicating the following: patients self-reported they were taking medications (28 acute phase and 25 continuation phase pa-

Table 3. Reasons for Failure to Achieve Adequate Acute and Continuation Phase Treatment Duration

	Treatment Phase Duration			
	Acute, 84 d (N = 109)		Continuation, 180 d (N = 99)	
Variable	N	%	N	%
Reason for failure				
Patient nonadherence (physician prescribed medication but patient failed to fill or take)	14	12.8	24	24.2
Side effects	10	9.2	4	4.0
Clinical improvement	5	4.6	11	11.1
Patient lost to follow-up	4	3.7	1	1.0
Depression found to be incorrect diagnosis	3	2.8	3	3.0
Medication ineffective (but patient not switched to another medication)	2	1.8	4	4.0
Saw physician, no medication prescribed	2	1.8	...	
Pregnancy	1	0.9	1	1.0
Switched to "alternative" treatment (eg, herbs, acupuncture)	1	0.9	...	
Gaps between prescription refills too long (reason unknown)	1	0.9	2	2.0
Switched to psychotherapy (discontinued medication)	...		2	2.0
Unknown	18	16.5	13	13.1
Other	5	4.6	2	2.0
Total	66	60.6	67	67.7
Misidentified failure				
Reason for misclassification[a]				
Patient took medications, patient self-report	28	25.7	25	25.3
Untrackable ongoing medication samples	10	9.2	5	5.1
Wrong medication start date due to use of samples	5	4.6	...	
Other	...		2	2.0
Total	43	39.4	32	32.3

[a]Chart review found that patients had met Health Plan Employer Data Information Set criteria.

tients), ongoing antidepressant treatment was untrackable through HMO claims due to medication samples being given by the physician (11 acute phase and 5 continuation phase patients), and the acute phase treatment start date was wrong due to medication samples being used prior to the initial antidepressant medication claim (5 acute phase patients).

For the patients confirmed as failing to meet acute (66/109) or continuation (67/99) phase treatment, medical record documentation indicated the following reasons: patient nonadherence (12.8%, N = 14 acute phase and 24.2%, N = 24 continuation phase), side effects (9.2%, N = 10 acute phase), and clinical improvement (11.1%, N = 11 continuation phase). The reason was unknown in 16.5% (N = 18) of acute phase and 13.1% (N = 13) of continuation phase patients. All identified reasons for failure to have adequate acute and continuation phase treatment duration are listed in Table 3.

Reviewers tried to identify, where possible, who made the decision to stop treatment (i.e., patient, physician, or both) and whether or not acute or continuation phase treatment duration criteria had been met. For acute phase, the patient was the decision maker 29.4% of the time; the physician, 7.3% of the time; and both, 2.8% of the time. The decision maker was unknown 60.1% of the time. For the continuation phase, the patient was the decision maker 45.5% of the time; the physician, 4.0% of the time; and both, 1% of the time. The decision maker was unknown 27.2% of the time.

Primary Care Versus Psychiatry

Overall, there were few differences between patients who initiated treatment with primary care or psychiatry in reasons for HEDIS criteria failure. The only statistically significant difference was that a greater percentage of patients initiating treatment with a psychiatrist were incorrectly coded as failing to meet HEDIS duration criteria as a result of use of medication samples (21.1% vs. 4.8% for acute phase [p = .011], and 12.5% vs. 1.7% for continuation phase [p = .033]).

Status at 6- and 12-Month Follow-Up

Reviewers examined patient medical records for any documentation of clinical status at approximately 6 months and 12 months after the HEDIS acute phase start date. Clinical status at 6 and 12 months could not be determined for 48% of patients at 6 months and 47% of patients at 12 months. Of those patients for whom clinical status could be determined from the medical chart, 52% were documented as "much" or "very much" improved at 6 months, and 57% were documented as "much" or "very much" improved at 12 months.

It was difficult to compare the difference in clinical outcome between patients who failed to achieve 3 visits and patients who failed to achieve duration of acute or continuation phase treatment because many patients who failed visits also failed 1 of the duration standards as well. In order to overcome this confound, we examined clinical outcomes in the subsample of patients who only failed 1 of the 3 criteria. At 6-month follow-up, 29.3% of patients who failed to meet visits criteria were rated as "much" or "very much" improved compared with 26.3% of patients who failed to meet acute phase treatment and 50.0% of patients who failed to meet continuation phase treatment criteria ($\chi^2 = 4.75$, df = 2, p = .093). At 12-month follow-up, 48.8% of patients who failed to meet visits criteria and 26.3% of patients who failed to meet acute phase treatment criteria were rated as "much" or "very much" improved, and the number of patients who failed to meet continuation treatment criteria who were "much" or "very much" improved was 34.2% ($\chi^2 = 3.31$, df = 2, p = .192).

DISCUSSION

The study findings provide some perspective on the reasons for failure to achieve HEDIS criteria for successful antidepressant treatment. The most common reason for failure to achieve the HEDIS visits requirement was the restarting of previously used antidepressants. The HEDIS Antidepressant Medication Management specification is designed to identify any new, and possibly recurring, episodes of depression that have not been diagnosed or treated within 6 months prior to the start date. Future studies should explicitly assess treatment patterns for this population. Whether a patient restarting a medication successfully taken in the past requires 3 visits may be an issue of balancing good clinical care with effective allocation of resources. It is worth debate and input from both perspectives.

About 12% of patients actually had a follow-up visit with the prescribing provider for an unrelated medical problem, but mental health was not discussed (or at least it was not coded or documented in the case notes). Utilizing this encounter to also monitor the status of the depression treatment would obviously be an effective utilization of resources and would also maximize clinical outcomes. Reasons for this failure would be illuminating, e.g., time constraints, failure to recall or review current antidepressant status. It may also be possible that mental health was discussed but not documented in either the case notes or the billing. Different models of depression management may help obviate some of these problems, such as use of a patient registry, disease-specific flowsheets, or a treatment coordinator who monitors patient clinical treatment and status.

About 6% of patients were told to schedule an appointment and did not, and another 7% scheduled an appointment but failed to show. Thus, only about 13% of visit failures were due directly to patient noncompliance.

A striking finding from this study is that approximately 21% of patients were classified as failing to meet HEDIS visits criteria, when in fact they had met HEDIS visits criteria. In approximately 8% of cases, the chart notes indicated that mental health was discussed, but the visits were not billed as such. Finding the reasons for this omission would be illuminating, e.g., whether it was due to concern for confidentiality and insurability, conservation of resources, lack of certainty about diagnostic criteria, stigma, or other reasons. Wrong medication start date due to use of samples (5%) was the second most common reason for error. Better tracking and documentation of samples (perhaps centralized) may help determine the correct start date of treatment.

In terms of adequate duration of treatment, the most common problem was patient nonadherence (approximately 13% and 24% in acute and continuation phases, respectively). Better patient education about what to expect from treatment and its importance, including better explanation and monitoring of side effects, might help mitigate this problem. Again, use of a treatment coordinator who assumes the task of patient education as well as tracking might mitigate this problem. While most chart notes did not indicate who decided to terminate treatment, 29% of the time it was the patient's decision while 7% of the time the physician decided. Interestingly, side effects had a relatively low impact on discontinuation (9% in acute phase treatment).

Similar to visits, high rates of patients were incorrectly classified as failing to achieve adequate duration according to medical records documentation. Approximately 15% of patients were incorrectly classified as having failed to obtain adequate acute phase treatment because of use of samples. This is a quality improvement monitoring issue that will require focused effort to overcome. More importantly, about 25% of patients told their doctors they were taking their medications when the pharmacy database found they were not. Whether patients were actually misrepresenting their behavior or this was due to other causes (e.g., samples given but not recorded in chart note, obtaining prescriptions from outside source, utilizing "half-doses") is unknown. If, in fact, patients were misrepresenting their behavior, perhaps primary care doctors are acting rationally by believing their patients when they tell them they are taking their medications. Some data support this. In a study by Demyttenaere and colleagues,[18] patients were telephoned monthly for 6 months following initiation of antidepressant treatment. The researchers found that, overall, 24% of patients did not inform their physician about stopping their medication. Reason for stopping was associated with whether physicians were informed, e.g., 76% were informed when the reason was "feeling better," compared with 34% for "lack of efficacy." The authors concluded, "The more a dropout reason could hurt the doctor's self-esteem, the lower the percentage of patients informing the doctors."[18(p32)] Perhaps this accounts for the low percentage of patients reporting lack of efficacy for discontinuation in the current study. Similar to the Demyttenaere study, the current study found that reason for failure to achieve adequate duration of treatment varied as a function of time, e.g., side effects were a more common reason during the acute versus continuation phase (9.2% vs. 4.0%, respectively), while clinical improvement was more common during continuation versus the acute phase (11.1% vs. 4.6%, respectively).

It is interesting to note that only 1.6% of charts were for patients treated by OB/GYN physicians, given that approximately two thirds of patients with depression are women and that patients often use their OB/GYN physician as their de facto primary care physician. Rates of postpartum depression have been found to range from 6% to 10%.[19,20] While it is theoretically possible that the low percentage is due to a very high percentage of OB/GYN

patients receiving adequate treatment (and thus not making it into our sample), there are no data supporting the contention that the OB/GYN specialty has higher rates of successful treatment than primary care or other specialties.

An interesting question that has rarely been explored is what becomes of patients clinically who fail to achieve HEDIS specifications. It is telling that in about half the cases, the medical record documentation fails to mention clinical status at 6- and 12-month follow-up. In those cases where medical records contain this information, about half of patients who failed HEDIS specifications were "much" or "very much" improved at 6 months, and 57% were "much" or "very much" improved at 12 months. Future studies that incorporate medical record reviews with patient and physician follow-up interviews will yield more definitive answers to these and other questions.

REFERENCES

1. Shaprio S, Skinner EA, Kessler LG, et al. Utilization of health and mental health services: three Epidemiologic Catchment Area sites. Arch Gen Psychiatry 1984;41:971–978
2. Johnson DAW. Treatment of depression in general practice. Br Med J 1973;2:18–20
3. Rosholm JU, Hallas J, Gram LF. Outpatient utilization of antidepressants: a prescription database analysis. J Affect Disord 1993;27:21–28
4. Johnson DAW. A study of the use of antidepressant medication in general practice. Br J Psychiatry 1974;125:186–192
5. Thomson J, Rankin H, Ashcroft GW, et al. The treatment of depression in general practice: a comparison of L-trytophan, amitriptyline, and a combination of L-tryptophan and amitriptyline with placebo. Psychol Med 1982; 12:741–751
6. Katon WK, Von Korff M, Lin E, et al. Adequacy and duration of antidepressant treatment in primary care. Med Care 1992;30:67–76
7. Katzelnick DJ, Kobak KA, Jefferson JW, et al. Prescribing patterns of antidepressant medications for depression in a health maintenance organization. Formulary 1996;31:374–388
8. Scott AIF, Freeman CPL. Edinburgh primary care depression study: treatment outcome, patient satisfaction, and cost after 16 weeks. Br Med J 1992;304:883–887
9. Katon W, Von Korff M, Lin E, et al. Collaborative management to achieve treatment guidelines impact on depression in primary care. JAMA 1995;273:1026–1031
10. Katzelnick DJ, Simon GE, Pearson SD, et al. Randomized trial of depression management program in high utilizers of medical care. Arch Fam Med 2000;9:345–351
11. Simon GE, Von Korff M, Rutter C, et al. Randomised trial of monitoring, feedback, and management of care by telephone to improve treatment of depression in primary care. BMJ 2000;320:550–554
12. National Committee for Quality Assurance. HEDIS 2000: Technical Specifications, vol 2. Washington, DC: National Committee for Quality Assurance; 2000
13. Clinical Practice Guideline Number 5: Depression in Primary Care, vol 1. Detection and Diagnosis. Rockville, Md: US Dept Health Human Services, Agency for Health Care Policy and Research; 1993. AHCPR publication 93-0550
14. Clinical Practice Guideline Number 5: Depression in Primary Care, vol 2. Treatment of Major Depression. Rockville, Md: US Dept Health Human Services, Agency for Health Care Policy and Research; 1993. AHCPR publication 93-0551
15. Clinical Practice Guideline Number 5: Depression in Primary Care. Detection, Diagnosis, and Treatment. Rockville, Md: US Dept Health Human Services, Agency for Health Care Policy and Research; 1993. AHCPR publication 93-0552
16. NIMH Consensus Development Conference Statement. Mood disorders: pharmacologic prevention of recurrences. Am J Psychiatry 1985;142: 469–476
17. Clagnaz PJ, Katzelnick DJ, Henk HJ, et al. Psychiatric pharmacotherapy of depression: treatment guidelines versus reality. Presented at the 37th annual meeting of the New Clinical Drug Evaluation Unit; May 27–30, 1997; Boca Raton, Fla
18. Demyttenaere K, Enzlin P, Dewé W, et al. Compliance with antidepressants in a primary care setting, 1: beyond lack of efficacy and adverse events. J Clin Psychiatry 2001;62(suppl 22):30–33
19. Millis JB, Kornblith PR. Fragile beginnings: identification and treatment of postpartum disorders. Health Soc Work 1992;17:192–199
20. Zelkowitz P, Milet TH. Screening for post-partum depression in a community sample. Can J Psychiatry 1995;40:80–86