The Use of Antipsychotics in Primary Care

Joseph A. Lieberman III, M.D., M.P.H.

There has been a substantial increase in the number of patients suffering from psychiatric disorders who seek treatment in primary care practices, which has precipitated an increase in the number of prescriptions written by primary care physicians for psychotropic agents. As managed care has become entrenched in communities, many patients presenting with psychiatric disorders are seeking help from primary care physicians because mental health coverage offered by many managed care companies is deemed to be inadequate. There currently exists considerable variation in prescribing patterns of psychotropic medications between primary care providers and psychiatrists and among primary care physicians themselves, as well as a general lack of concordance between diagnoses and psychotropic medications prescribed in the medical field as a whole. Prescribing patterns vary due to differences in diagnoses, the discomfort that some primary care physicians feel toward prescribing psychotropic medications, differing levels of awareness and recognition due to cultural variances, the perceived negative stigma of mental illness, and insufficient education regarding the etiology and management of psychiatric disorders. These variations are particularly evident in the prescribing trends of antipsychotic medications by primary care physicians.

(Primary Care Companion J Clin Psychiatry 2003;5[suppl 3]:3–8)

At the end of the 1980s, of all the patients in primary care, 25% to 30% had a psychiatric disorder.[1] However, in recent years, there has been a significant increase in the number of patients suffering from psychiatric illnesses who seek treatment in the primary care practice setting. For example, in 1999, one third of all patients with schizophrenia were seen in primary care, and 14% obtained their care exclusively from a primary care physician.[2] This increase in the percentage of patients with mental disorders in the primary care setting has precipitated an increase in the number of prescriptions written by primary care physicians for psychotropic agents. There currently exists, however, a wide variation between practices in patterns of prescribing psychotropic medications in primary care,[3] as well as a lack of concordance between diagnoses for which medications are prescribed.[4] This variation is particularly evident in the prescribing trends of primary care physicians with antipsychotic medications, because primary care physicians significantly differentiate between the available agents. To positively impact patient populations, it is important for primary care physicians to understand how to identify mental illnesses in their patients and how to effectively use various medications to manage the spectrum of these disorders that now are so frequently presenting in their practices.

From the Department of Family Medicine, Jefferson Medical College, Hockessin, Del.

This article was derived from the planning roundtable "Using Atypical Antipsychotics in Primary Care," which was held June 2–4, 2002, in Washington, D.C., and supported by an unrestricted educational grant from Janssen Pharmaceutica, L.P.

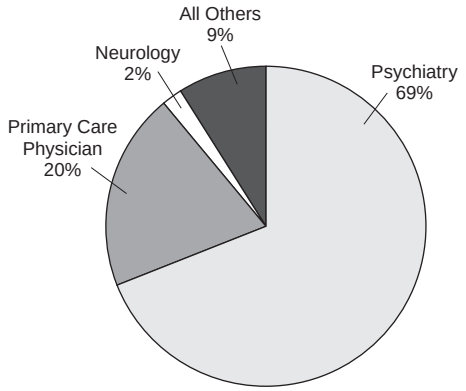
Corresponding author and reprints: Joseph A. Lieberman III, M.D., M.P.H., Department of Family Medicine, Jefferson Medical College, 2 Aston Circle, Hockessin, DE 19707-2500 (e-mail: jlieberman@jalmd.com).

PREVALENCE AND DIAGNOSIS OF PSYCHIATRIC DISORDERS IN PRIMARY CARE

According to IMS Health, National Prescription Audit (NPA) Plus[5] from 1996 to 2001, the total number of prescriptions issued by primary care physicians for psychotropic medications (antipsychotics, antidepressants, anxiolytics, stimulants, and anticonvulsant medications) increased by 48%. Primary care physicians write approximately 80% of all anxiolytic prescriptions and 65% of all antidepressant prescriptions written in the United States. Additionally, although psychiatrists continue to prescribe the majority of antipsychotics, primary care physicians currently prescribe approximately 20% of these medications (Figure 1).

The prevalence of psychiatric disorders in the family care setting was confirmed in an older study by Barrett et al.[1] in which patients from a rural primary care practice were assessed for psychiatric disorders over a 15-month period and then categorized using Research Diagnostic Criteria. Study results indicated that over 25% of those patients seeking treatment at the primary care practice had a psychiatric disorder, mainly depression. The researchers emphasized a need for further research on outcome and

Figure 1. Antipsychotic Market Total Prescription Distribution by Specialty[a]



[a]Data from IMS.[5]

treatment response for psychiatric presentations in primary care.

Challenges in Diagnosis

Overall, roughly 50% of all psychiatric cases presenting in primary care go unrecognized.[6] Some of the difficulties primary care physicians experience in identifying patients with mental disorders may stem from differing levels of awareness and recognition due to cultural variances, the perceived negative stigma of mental illness, and insufficient education regarding the etiology and management of psychiatric disorders. Because most primary care physicians have been trained to look for organic origins to symptoms and since patients suffering from mental disorders often present with organic symptomatology, a misdiagnosis can easily occur.

Some of the challenges primary care physicians face in successfully identifying and effectively treating patients with mental disorders became apparent in a recent comprehensive survey conducted by Olson et al.[7] This cross-sectional survey described primary care pediatricians' approach to the identification and management of childhood and adolescent depression, how they perceived their skills and responsibilities, and what barriers they encountered in recognizing this psychiatric disorder. Primary care pediatricians across the United States were randomly selected to assess how they managed their last case of child or adolescent depression and to report on their attitudes, limitations, and willingness to implement new educational or intervention strategies to improve care. The response rate was 63%—of the 280 pediatricians who completed surveys, 252 (90%) reported that it was their responsibility to recognize depression in children and adolescents, but 76 (27%) said that they were less likely to feel responsible for treating depression in children and adolescents. Those pediatricians with most of their practice in capitated managed care were less likely to feel responsible for recognizing depression, and 129 (46%) of the entire sample lacked confidence in their skills to recognize depression. Of 248 who detailed their last recalled case of depression in a child or adolescent, only 47 (19%) prescribed medication. Instead, approximately 79% of the reported cases were referred to mental health care professionals. Pediatricians frequently cited lack of time, training, and knowledge as limiting factors in diagnosis or management. The researchers concluded that many primary care pediatricians felt responsible for recognizing but not for treating child and adolescent depression. They found that some pediatricians were willing to implement new strategies to care for depression, but overall they varied in their readiness to change. Practice and education interventions are needed to better prepare primary care physicians to diagnose and manage depression, and other mental disorders, especially in light of recent pharmacologic advances that would provide safe and effective treatment for many patients.

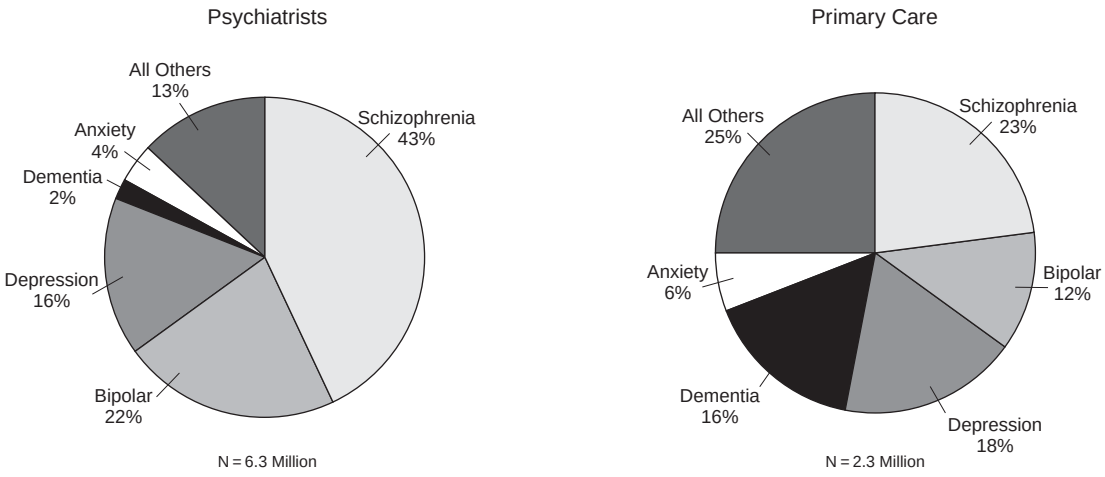
Causes for Changing Patterns

As managed care has become entrenched in communities, many patients presenting with psychiatric disorders are going to primary care physicians since many managed care contracts limit mental health care coverage. Even patients with serious mental illnesses often must rely on a primary care physician because the mental health benefits offered by their managed care companies are quickly exhausted. In some communities, primary care physicians must provide psychiatric care for patients with psychiatric disorders simply due to geographical issues. Smaller communities may not have sufficient psychiatrists to treat the number of patients with psychiatric disorders.

One study attempted to determine whether the spread of managed care was affecting the treatment of mental and physical illnesses. Using data from the 1998 Socioeconomic Monitoring System performed by the American Medical Association, Schlesinger[8] tested a number of hypotheses by comparing the experiences of psychiatrists under managed care with those of primary care providers and medical specialists. Study results indicated that, with respect to managed care, compared with primary care physicians, psychiatrists (1) face substantially more aggressive external reviews and have less success in overturning denials; (2) feel significantly more at risk for disaffiliation from health plans; (3) report facing more confusing review protocols; (4) are more likely to report that their patients have difficulty making informed choices about managed care; and (5) spend more time in advocating for their patients. All these factors have contributed to the shift from psychiatric care to primary care for many patients in managed care who have psychiatric disorders.

Another recent article[9] examined several areas of the public mental health system. Despite promises made by advocates of managed care to greatly improve delivery of services to patients with serious mental health illness by

Figure 2. Percentage of Prescriptions Written for Key Disease States Treated With Antipsychotics by Specialty[a]



[a]Data from IMS.[10]

focusing on effectiveness and accountability, the author determined that several areas still have major flaws. Among other problems, there appeared to be an absence of integration of Medicaid with the public mental health system; an absence of meaningful consumer, family, and enrollee participation in service planning, implementation, and evaluation; and a general lack of publicly documented performance measurements that demonstrate accountability. The author concluded that the current managed care system fails those patients with the most serious mental illnesses.

TREATMENT OF PSYCHIATRIC DISORDERS IN PRIMARY CARE

The increase in the percentage of patients with mental disorders in the primary care setting has precipitated a rise in the number of prescriptions written by primary care physicians for psychotropic agents. However, there exists considerable variation in patterns of prescribing psychotropic medications between primary care providers and psychiatrists and among primary care physicians[3] themselves, as well as a general lack of concordance between diagnoses and psychotropic medications prescribed in the medical field as a whole.[4]

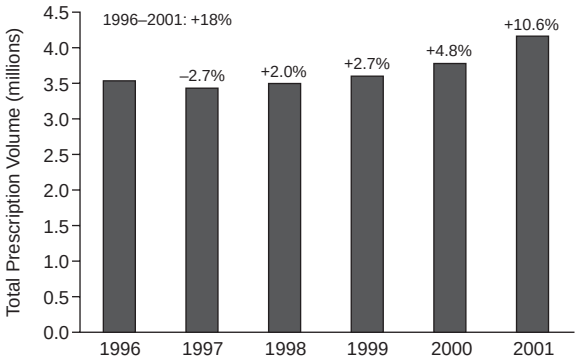
Differences in Treatment Patterns Between Primary Care Physicians and Psychiatrists

There are notable variations in patterns of prescribing antipsychotics between primary care providers and psychiatrists (Figure 2).[10] Antipsychotics are frequently used for different purposes in psychiatry and primary care. Of the 6.3 million of the antipsychotic prescriptions written by psychiatrists in 2001, 43% were for schizophrenia, 22% for bipolar disorder, and 16% for depression. Primary care physicians wrote fewer prescriptions (2.3 million) for antipsychotics, of which 23% were for schizophrenia, 12% for bipolar disorder, and 18% for depression.

Similar findings were evident in a study conducted by Weiss et al.[11] in which 173 patients who were having their prescriptions for antipsychotics filled at a local pharmacy were interviewed. Out of the 173 patients, 115 (66%) had been prescribed the antipsychotic for off-label indications, primarily as a tranquilizer or an anxiolytic. While gender, education, duration of treatment, and efficacy of treatment all appeared to have no influence on prescription practices for antipsychotics, family status and age showed a significant influence. Antipsychotics were more frequently indicated for schizophrenia-related disorders or bipolar affective disorder in married patients, widowed patients, and in patients aged 30 to 49. In unmarried, divorced, and older patients, antipsychotics were almost exclusively for off-label indications.

Some of the variation in prescribing patterns between psychiatrists and primary care physicians can be attributed to differences in the types of illnesses that generally present in each respective domain. Primary care physicians typically treat a greater number of dementia patients than do psychiatrists, and psychiatrists usually treat a greater number of patients with schizophrenia than do primary care providers. The variation in prescribing patterns might also be attributed to the discomfort that some primary care physicians feel toward prescribing antipsychotics due to a lack of familiarity with these agents or concerns about side effects. However, it is important for primary care physicians to understand how to accurately prescribe antipsychotics and to know their pharmacologic profile, as these agents can be efficacious in treating many

Figure 3. Growth of Antipsychotic Volume in Primary Care[a]



[a]Data from IMS.[5]

of the wide range of psychiatric disorders that are frequently presenting in their practices.

Treatment Patterns Among Primary Care Physicians

Pharoah and Meltzer[3] conducted a study that revealed a high degree of variation in the volume of psychotropic drug prescriptions among primary care providers. The study described the extent of variation between primary care practices in the prescribing of hypnotics, anxiolytics, and antidepressants by routinely collecting and analyzing prescription and practice population data for 1 year from 61 primary care practices in the Cambridge and Huntingdon Health Commission. Study results indicated that there was an 11-fold difference between the highest and lowest prescribing practices. Additionally, there was a 13-fold difference in the annual daily doses per 1000 practice population prescribed for hypnotics, and an 8-fold difference in the annual daily doses per 1000 practice population prescribed for anxiolytics and antidepressants. The researchers noted the need for more clarity concerning the effectiveness and appropriateness of using these agents in the various illness, symptom, and life-stress presentations seen in primary care settings.

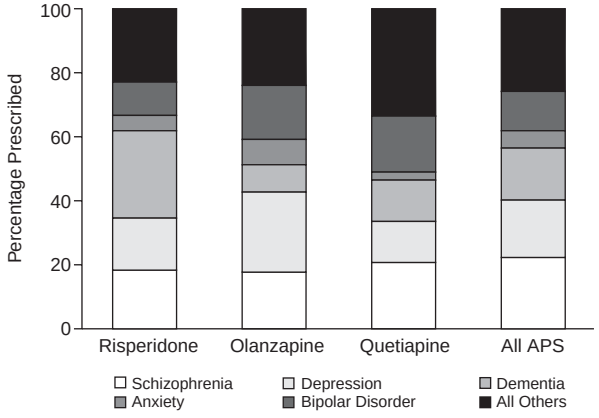
Linden et al.[12] conducted similar research using data from the Psychological Problems in General Health Care study—an international primary case survey directed by the World Health Organization. Representative samples of primary care patients from 15 centers in 14 countries were assessed using standard measures of psychiatric symptoms, International Classification of Diseases (ICD)-10 psychiatric diagnoses, and prescribed drug treatments. The data were used to determine how clinical and nonclinical factors influenced the type of psychotropic drug prescribed, how prescribing patterns varied among centers, and if these patterns of psychotropic drug prescribing were related to specific characteristics of centers. It was determined that prescription rates increased with the prominence of psychological complaints, severity of mental disorder, severity of social disability, female gender, age older than 40 years, unemployment, marital separation, and lower education. Rates and type of drugs also varied among specific mental disorders; for example, 19% of patients with brief recurrent depression were given psychotropic medication compared with 55% of patients with agoraphobia. There were significant differences between international centers, as well. Recognition of mental disorders and selection of specific drug classes are important areas for improvement.

Although psychiatrists prescribe the majority of all antipsychotic prescriptions, IMS data indicate a 10.6% growth in the total volume of antipsychotic prescriptions by primary care physicians from 1996 to 2001 (Figure 3).[5] A meta-analysis conducted by Pincus et al.[13] determined that between 1985 and 1994, psychotropic medication use in outpatient medical practice changed dramatically in both primary care and in psychiatric practices. Study results indicated that the number of visits during which a psychotropic medication was prescribed increased from 32.7 million to 45.6 million. Visits during which an antianxiety or hypnotic drug was prescribed (previously the largest category) were surpassed by visits during which an antidepressant was prescribed. Interestingly, however, although visits for depression doubled for both primary care providers and psychiatrists, the proportion of visits in which an antidepressant was prescribed increased for psychiatrists, but not for primary care providers.

In addition to writing a large number of antipsychotic prescriptions, primary care physicians also appear to be differentiating between the available antipsychotic agents depending on diagnosis.[10] Figure 4 demonstrates the distribution by diagnosis of the 3 most frequently prescribed atypical antipsychotics. Each of the 3 atypical antipsychotics has a slightly different profile, and IMS data show significant differentiation in use among these products. Primary care physicians prescribe risperidone more frequently for dementia; olanzapine for depression; and quetiapine for other nonspecified illnesses. Risperidone prescriptions are written, in order of frequency, for dementia, nonspecified illnesses, schizophrenia, depression, bipolar disorder, and anxiety. The differentiation between these products by the prescribing physician is apparently due to a perception that each drug should be utilized differently depending on diagnosis.

Ashcroft et al.[14] conducted a study that further demonstrated the variation in prescribing patterns of atypical antipsychotics among primary care physicians. Using a cross-sectional study of prescribing analysis and cost data for atypical antipsychotic drugs (clozapine, amisulpride, olanzapine, risperidone, sertindole, and zotepine) and a one-way analysis of variance, the researchers examined variations in prescribing trends for these drugs in primary care over a 5-year period. According to the Mental Illness Needs Index scores, the researchers tested 13 health au-

Figure 4. Distribution by Diagnosis as Prescribed by Primary Care Physicians[a]



[a]Data from IMS.[10]
Abbreviation: APS = antipsychotics.

thorities within the West Midlands region of England to determine whether the differences in prescribing patterns reflected variations in local population need. Study results indicated that in this region, the total volume of prescribing of atypical antipsychotic drugs by primary care providers increased nearly 6-fold from 1996 to 2001. There was a 4-fold variation in rates of atypical antipsychotic prescribing between health authorities, compared with a 3-fold variation after adjusting for local population needs. The researchers concluded that while there has been a substantial increase in the prescription of atypical antipsychotics in primary care, the rate of increase has varied widely between health authorities. They indicated a need for further studies to determine the factors that have led to these differences.

Recent research has determined that atypical antipsychotics, which block postsynaptic dopamine and serotonin receptors, are associated with fewer side effects, and are much less likely to induce tardive dyskinesia than traditional antipsychotic agents.[15] However, despite these advantages, many elderly patients are still being treated with typical antipsychotics. This trend is of particular importance to primary care physicians because they treat such a large number of elderly patients both in nursing homes and in their offices. Using data from the Ontario Drug Benefit, Dewa et al.[16] found that the introduction of atypical antipsychotics was paralleled by a dramatic increase in expenditures for antipsychotic drugs; however, there was more switching to atypical antipsychotics and a greater use of these agents among younger patients compared with older patients, despite evidence that the atypical antipsychotics might be safer in the elderly than older conventional antipsychotics. In a cross-sectional study, Linjakumpu et al.[17] assessed the changes in psychotropic use among the home-dwelling elderly from 1990 to 1999 in a semi-rural Finnish municipality. Study results indicated that while psychotropics were being overprescribed in general, new-generation psychotropics were not being used at all.

Primary care physicians are also more frequently being faced with the challenge of treating children and adolescents who have psychiatric disorders. Increasing rates of depression in adolescents along with a decrease in the availability of psychiatric care has created a need for primary care providers to become proficient in the screening and treatment of emotional and mental disorders in adolescent patients.[18] Recent data have determined that newer atypical antipsychotics may have less severe adverse effects than older antipsychotics in the treatment of psychosis and severe behavior disorders in children and adolescents.[19] Additionally, a review of case studies and clinical trials[20] of atypical antipsychotics indicates that these agents show promise in treating several neuropsychiatric conditions in younger patients that include psychotic, mood, disruptive, movement, and pervasive developmental disorders.

However, there is a paucity of short-term and long-term placebo-controlled studies pertaining to the efficacy and safety of antipsychotic agents in young people. Because significant side effects can occur when children and adolescents are treated with atypical antipsychotics, physicians should consider initiating this treatment carefully. Additionally, primary care physicians who prescribe atypical antipsychotics to children and adolescents, as well as geriatric patients, should exercise caution in determining dose because recommended dosages vary significantly between age groups and diagnoses.

CONCLUSIONS

There has been a significant increase in the number of patients suffering from psychiatric illnesses seeking treatment in the primary care setting, which has precipitated an increase in the number of prescriptions written by primary care physicians for psychotropic agents. As managed care has become entrenched in communities, many patients presenting with psychiatric disorders are going to primary care physicians since managed care companies often limit coverage of mental health care. However, there exists considerable variation in patterns of prescribing psychotropic medications between primary care providers and psychiatrists and among primary care physicians themselves, as well as a general lack of concordance between diagnoses and psychotropic medications prescribed in the medical field as a whole. Prescribing patterns vary due to differences in diagnoses, the discomfort that some primary care physicians feel toward prescribing psychotropic medications, differing levels of awareness and recognition due to cultural variances, the perceived negative stigma of mental illness, and insufficient education re-

garding the etiology and management of psychiatric disorders. These variations are particularly evident in the prescribing trends of primary care physicians with antipsychotic medications.

In order to have a positive impact on patient populations, it is important for primary care physicians to understand how to identify mental illnesses and effectively use various medications to manage the spectrum of these disorders that are so frequently appearing in their practices. Guidelines need to be established for detecting psychiatric illness, making an accurate diagnosis, and prescribing appropriate treatment. This is especially important in child/adolescent and geriatric populations. Primary care physicians need more exposure to the latest psychiatric research developments and improved consultation with mental health specialists, and there should be a greater integration of mental health and general medical services. Overall, it is important for primary care physicians to understand how to accurately prescribe psychotropic medications—especially antipsychotics—and to know their mechanism of action, as they can be efficacious in treating many of the wide range of psychiatric disorders that are frequently encountered in their practices.

Future studies need to evaluate the use of antipsychotic agents to treat disorders other than psychoses because primary care physicians so frequently prescribe these agents for off-label uses. There is also a need for guideline dissemination and more published research concerning the efficacy of atypical antipsychotics in various psychiatric illnesses to familiarize primary care clinicians with these agents and increase their comfort levels in prescribing them.

Drug names: clozapine (Clozaril and others), olanzapine (Zyprexa), quetiapine (Seroquel), risperidone (Risperdal).

Disclosure of off-label usage: The author of this article has determined that, to the best of his knowledge, olanzapine is not approved by the U.S. Food and Drug Administration for the treatment of depression, dementia, and anxiety; and risperidone and quetiapine are not approved for the treatment of depression, dementia, bipolar disorder, and anxiety.

REFERENCES

1. Barrett JE, Barrett JA, Oxman TE, et al. The prevalence of psychiatric disorders in a primary care practice. Arch Gen Psychiatry 1988;45: 1100–1106
2. Regier DA, Narrow WE, Rae DS, et al. The de facto US mental and addictive disorders service system: Epidemiologic Catchment Area prospective 1-year prevalence rates of disorders and services. Arch Gen Psychiatry 1993;50:85–94
3. Pharoah PD, Melzer D. Variation in prescribing of hypnotics, anxiolytics and antidepressants between 61 general practices. Br J Gen Pract 1995;45: 595–599
4. Hohmann AA, Larson DB, Thompson JW, et al. Psychotropic medication prescription in US ambulatory medical care. DICP 1991;25:85–89
5. IMS Health, NPA Plus Moving Annual Total (MAT), 2001
6. Lecrubier Y. Prescribing patterns for depression and anxiety worldwide. J Clin Psychiatry 2001;62:31–36
7. Olson AL, Kelleher KJ, Zuckerman BS, et al. Primary care pediatricians' roles and perceived responsibilities in the identification and management of depression in children and adolescents. Ambul Pediatr 2001;1:91–98
8. Schlesinger M. Some distinctive features of the impact of managed care on psychiatry. Harv Rev Psychiatry 2000;8:216–230
9. Ross EC. Will managed care ever deliver on its promises? managed care, public policy, and consumers of mental health services. Adm Policy Ment Health 2000;28:7–22
10. IMS Health, National Disease and Therapeutic Index (NDT) MAT, 2001
11. Weiss E, Hummer M, Koller D, et al. Off-label use of antipsychotic drugs. J Clin Psychopharmacol 2000;20:695–698
12. Linden M, Lecrubier Y, Bellantuono C, et al. The prescribing of psychotropic drugs by primary care physicians: an international collaborative study. J Clin Psychopharmacol 1999;19:132–140
13. Pincus HA, Tanielian TL, Marcus SC. Prescribing trends in psychotropic medications: primary care, psychiatry, and other medical specialities. JAMA 1998;279:526–531
14. Ashcroft DM, Frischer M, Lockett J, et al. Variations in prescribing atypical antipsychotic drugs in primary care: cross-sectional study. Pharmacoepidemiol Drug Saf 2002;11:285–289
15. Bullock R, Saharan A. Atypical antipsychotics: experience and use in the elderly. Int J Clin Pract 2002;56:515–525
16. Dewa CS, Remington G, Herrmann N, et al. How much are atypical antipsychotic agents being used, and do they reach the populations who need them? a Canadian experience. Clin Ther 2002;24:1466–1476
17. Linjakumpu T, Hartikainen S, Klaukka T, et al. Psychotropics among the home-dwelling elderly—increasing trends. Int J Geriatr Psychiatry 2002; 17:874–883
18. Singh N. The evolving role of the primary care practitioner in adolescent depression screening and treatment. Minn Med 2002;85:37–38
19. Carrey NJ, Wiggens DM, Millin RP. Pharmacological treatment of psychiatric disorders in children and adolescents: focus on guidelines for the primary care practitioner. Drugs 1996;51:750–759
20. Findling RL, McNamara NK, Gracious BL. Paediatric uses of atypical antipsychotics. Exp Opin Pharmacother 2000;1:935–945