

# Medication rationality in treating depression

---

Liubov Kavaliauskienė<sup>1</sup>,

Rimantas Pečiūra<sup>1</sup>,

Virginija Adomaitienė<sup>2</sup>

<sup>1</sup> Department of Drug Technology  
and Social Pharmacy,  
Faculty of Pharmacy,  
Medical Academy,  
Lithuanian University  
of Health Sciences,  
Kaunas, Lithuania

<sup>2</sup> Department of Psychiatry,  
Medical Academy,  
Lithuanian University  
of Health Sciences,  
Kaunas, Lithuania

**Background.** The costs of depression treatment in Lithuania increase because of high depression relapse rates which indicate the necessity to evaluate first-time depression treatment rationality. The aim of this study was to evaluate the use of antidepressants according to the opinion of three groups of specialists (family doctors, psychiatrists and pharmacists) in order to assess the possibilities of a more rational use of depression treatment costs rationalizing opportunities.

**Materials and methods.** Data on depression diagnoses were obtained from the Republic Psychiatric Health Centre. In 2009, 361 Lithuanian pharmacist, 317 family doctors and 280 psychiatrists were interviewed. The data were processed using the Statistical Package for the Social Sciences program.

**Results.** In the study period (2004–2009), the volume of total depression diagnoses grew up by 12% and the number of relapsed depression diagnoses by 27%. Among family doctors, 13% still don't launch depression treatment by themselves, and 62% of them refer patients to psychiatrists in cases of depression relapse. Those who prescribe a medicine all alone in most cases use sertraline, but even 38% of family doctors mention benzodiazepines. According to family doctors' answers, 32% of them reevaluate the effect of medications in 4 weeks and 25% do not monitor it at all. More than 50% of pharmacists have noted that every day they are asked by patients for antidepressants without prescription.

**Conclusions.** The abundance of cases of recurrent depression, recorded by family doctors, encourage to revise the preparedness of family doctors to treat this disease. The specialists' opinion makes us to reevaluate and question the quality of depression treatment and to rationalize the efficiency of depression treatment in Lithuania as regards its both economic and social aspects.

**Key words:** depression treatment, antidepressants, depression relapse

---

## INTRODUCTION

Significant funds are dedicated for the treatment of patients with various forms of depression. Not only the money spent by the mentioned patients or their family members to buy antidepressants, but also expenses experienced by state (insurance, social funds) have already been calculated. Depression disrupts the working capacity of the ill person for a long time, complicates the live of his / her family members, and requires additional money for social care services.

---

Correspondence to: Liubov Kavaliauskienė, Department of Drug Technology and Social Pharmacy, Faculty of Pharmacy, Medical Academy, Lithuanian University of Health Sciences, A. Mickevičiaus 9, LT-44307, Kaunas, Lithuania. E-mail: liuba@kavaliauskai.lt

Two groups of expenses – direct and indirect – are related to depression. Their importance not only to the patient, but also to society is undeniable. It is normal to pay the greatest attention to direct expenses related to treatment; however, it is just a tip of the iceberg as compared with depression-related indirect costs, which include the loss of working capacity and productivity caused by the disease, and the related increase of mortality (1).

The pharmacological aspects of depression treatment have already been assessed long ago. For example, in 2004, the total expenditures on the treatment of patients with various forms of depression were estimated to be 118 billion Euros in Europe, or on average 253 Euros per capita per year (2). A research of Stoudemire et al. (1980) showed that the direct costs of depression treatment accounted for

only a small proportion – about 13% – of the total disease-related costs. Greenberg et al. evaluated the costs associated not only with the sickness absence, but also with a lower productivity at work caused by depression. The annual spending on depression in the USA is 43.7 billion dollars and in England and Wales about 3.4 billion pound sterling. Three of the four studies have concluded that indirect costs comprise a much larger part of total expenses. While analyzing the costs of the disease, all researchers showed that the expenses on medicine accounted for only a small part of the direct costs (10–12%) and only 1–2% of the total cost of the disease (1).

The growing treatment costs encourage to assess whether the treatment is reasonable. While assessing the rationality of treatment of this disease, the need of medication, psychological support of a patient and cooperation of his / her relatives and the treating doctor was considered.

Relapses of depression after a successful response to antidepressant medication have been reported in a number of recent studies of ongoing treatment. During routine pharmacotherapy of depression, it is unknown how common it is for psychiatrists eventually to find a need to raise medication dosages after achieving a marked remission (3). Evidence suggests that relapse rates in depression may range from 20% to as high as 44%, depending on the length of treatment, with a maintained use of selective serotonin reuptake inhibitors SSRIs (4). In contrast, with tricyclic antidepressants (TCAs), relapse during the ongoing treatment to maintain remission is relatively rare (5).

The costs of treating depression in Lithuania increase due to the high degree of depression recurrence and accounted for 6.95 million Euros of direct expenses in 2009. The growing number of depression recurrence in Lithuania shows the need to analyze the rationality of treatment of primary depression.

The objective the current study was to analyze how three groups of professionals – family doctors, psychiatrists and pharmacists – evaluate the prescription and usage of antidepressants in Lithuania, seeking to rationalize the costs of drug treatment and to suggest measures how to save funds while improving the quality of patients' treatment and life.

## MATERIALS AND METHODS

In 2009, the following professionals working in Lithuania were interviewed: 361 pharmacists or pharmacy technicians (95% reliability with 5% error from 5923 population), 317 family doctors (95% reliability with 5% error from 1 822 population) and 280 psychiatrists (95% reliability with 5% error from 1 030 population). Questionnaires with five questions regarding depression treatment, its relapse rates, treatment monitoring, illness frequency were presented to participants. A questionnaire survey was selected

for data collection as it is perfect for measuring quantitative characteristics. The form of research sample was the so-called available cases: data were collected from doctors and pharmacists by visiting them during their working hours, at their training events, conferences, contacting them in writing and orally, in medical institutions and pharmacies.

Structured interviews have also some limitations as they offer a range of possible answers to each question known in advance (6). Often, possible answers are listed in the form so that the interviewer simply marks the appropriate reply in each case. This approach is much more standardised using a prearranged list of answers for the respondent to choose from. There is little freedom for flexibility, due to the fixed question order. Each person is given the same questions (7). This has its advantages in that the information is easily quantifiable and allows the responses to be compared. Due to the lack of flexibility in this approach, it means that there is little room for unanticipated discoveries. People may feel that their response does not fit any of the designated answers (8).

The primary data were encrypted using the SPSS data processing package Windows / SPSS (*Statistical Package for the Social Sciences*) 14 and presented with the help of descriptive statistics.

Data on depression diagnoses were obtained from the State Mental Health Centre and expressed as the total number of diagnoses and the number of first time diagnosed and recurrent cases of depression.

## RESULTS

More and more cases of depression are diagnosed in Lithuania every year. A large proportion of cases are recurring depression (Fig. 1).

It should be noted that in 2007 the right to diagnose depression and to prescribe treatment was given to family doctors in Lithuania. According to their responses to the questionnaire, it is evident that in slightly more than one tenth of the cases family doctors refrain from prescribing the treatment by themselves (Fig. 2).

While prescribing antidepressants, family doctors usually choose sertraline – a medicine of the SSRI (selective serotonin reuptake inhibitors) class (24.9%), followed by bromazepam (16.7%) and alprazolam (21.2%) – medicines of benzodiazepine class (Fig. 3).

Psychiatrists showed a tendency to prescribe medicines of the SSRI group, i. e. sertraline (40.8%) and escitalopram (27.6%), followed by mirtazapine (9.2%) (Fig. 3).

The survey of pharmacists confirmed the popularity of antidepressants of the SSRI class and other more recent antidepressants (Fig. 3). However, it is important to highlight that even 13% mentioned alprazolam, bromazepam and lorazepam ascribed to the benzodiazepine class.

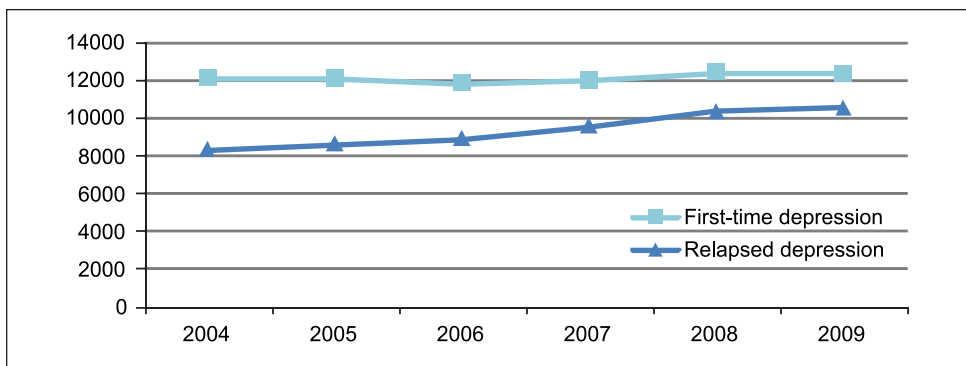


Fig. 1. First-time (F32) and relapsed (F33) depression diagnoses in Lithuania, 2004–2009

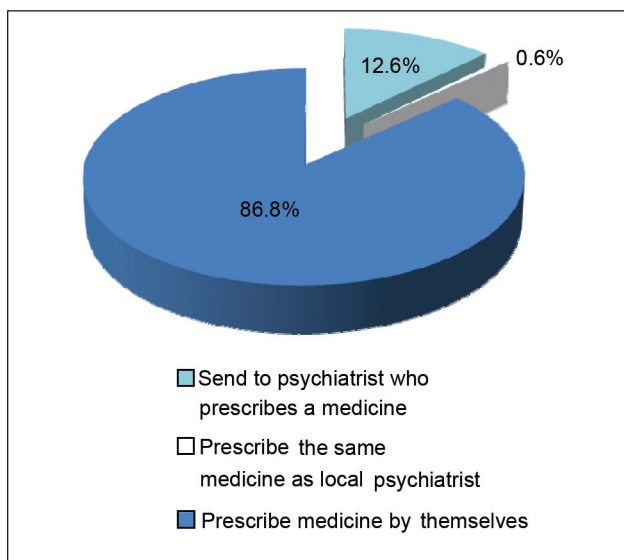


Fig. 2. Family doctors' answers to the question: "How do you treat your patients' depression?"

The next stage of depression treatment after medicine prescription is monitoring a patient's condition. When treating the starting or acute depression, the impact of medicine should be notable as soon as after 4 weeks and the improvement of disease course after 8 weeks (9). Every third of the surveyed Lithuanian family doctors indicated that they reviewed the impact of different medicines after 1–2 months and 17% only after half a year (Fig. 4).

Psychiatrists said that they always or often adjusted the dose of medicine for almost half of patients during treatment (27% and 34%, respectively). This fact shows a higher quality of patient's monitoring by these professionals and a higher effectiveness of depression treatment.

Pharmacists assess the treatment of patients with depression rather negatively: they believe that too high doses of antidepressants are prescribed and too little attention of doctors is given to these patients.

As is shown in Fig. 1, in Lithuania the proportion of cases of depression recurrence is large. Our survey data

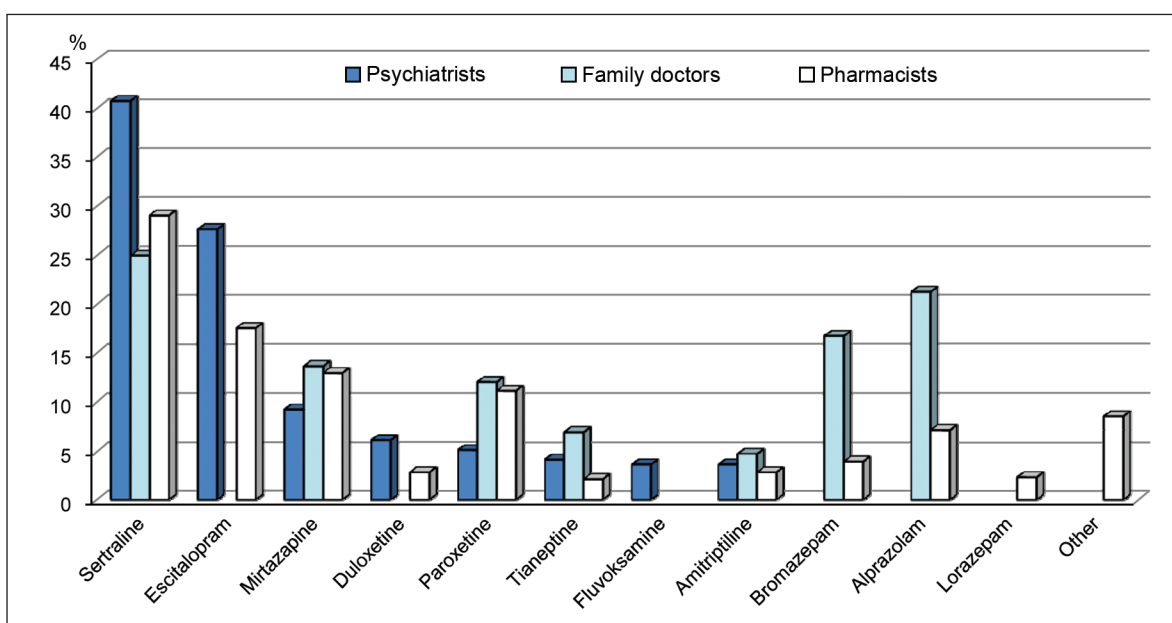


Fig. 3. Antidepressants most popular in family doctors', psychiatrists' and pharmacists' practice

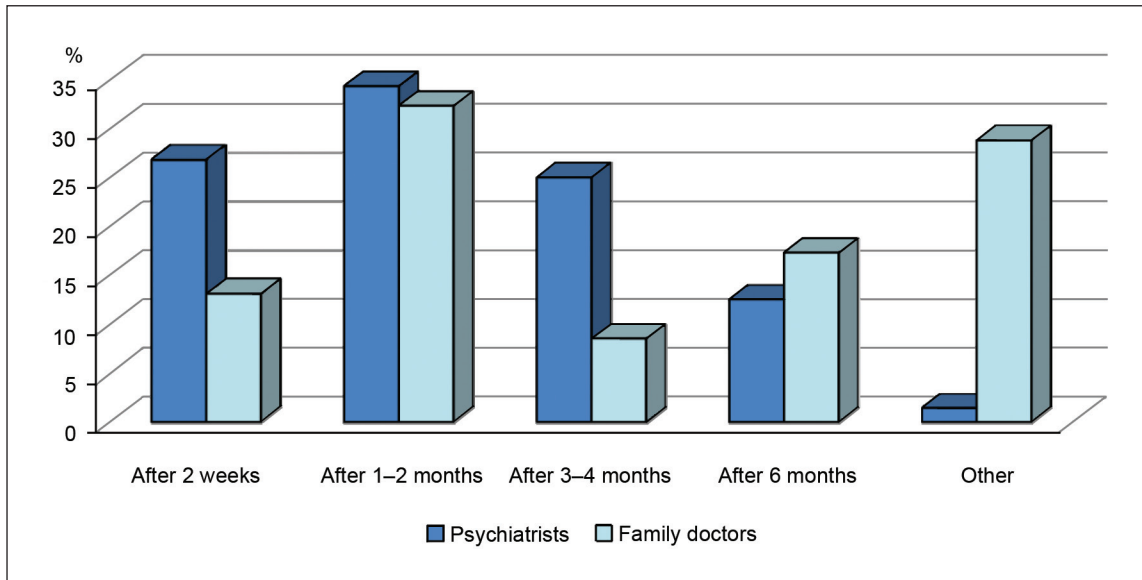


Fig. 4. Monitoring of antidepressants' effectiveness by family doctors and psychiatrists

correlate well with the depression epidemiology data of the State Mental Health Center. This is confirmed also by both surveys of family doctors and psychiatrists: about 35% of respondents of both groups indicated having recorded cases of recurrent depression: however, the numbers of cases of recurrent depression differ significantly (Fig. 5).

Upon analyzing the results of the above responses, it is possible to assess the working efficiency of family doctors and psychiatrists and to propose appropriate measures of saving the funds and seeking an economic and social effect.

After diagnosing a recurrent depression, family doctors refer patients to psychiatrists immediately (61.7% of cases). When meeting these patients, psychiatrists prescribe the same medicine as has been prescribed earlier even in 73.36% of cases.

However, the number of cases of recurrent depression is probably much higher than that recorded by family doctors and psychiatrists. Pharmacists inform that they are constantly addressed by people asking to sell antidepressants without prescription (Fig. 6).

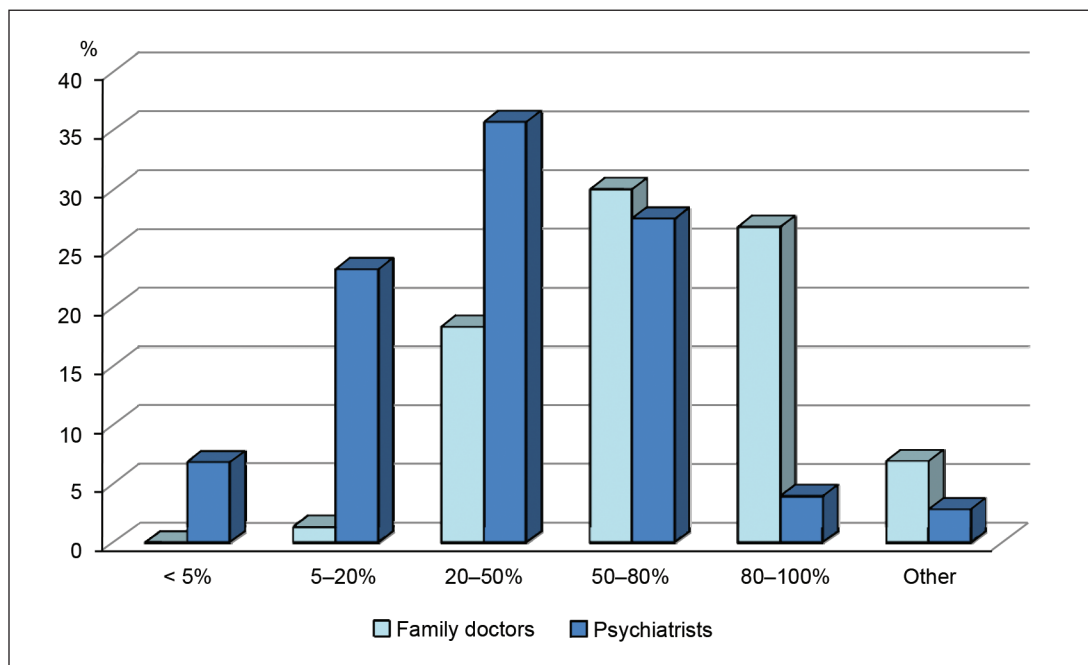


Fig. 5. Relapsed depression frequency in usual practice by family doctors' and psychiatrists' opinion

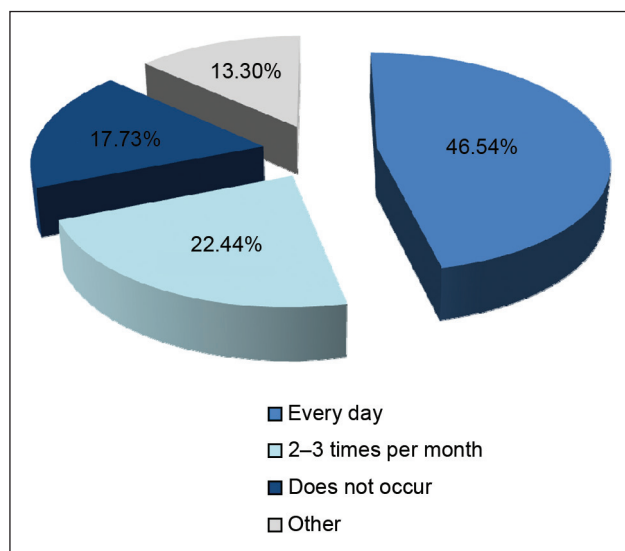


Fig. 6. Number of cases when patients ask for antidepressants without prescription

## DISCUSSION

In summary, it might be concluded that depression treatment is approached differently by different professionals.

Family doctors and psychiatrists indicate different numbers of people with recurrent depression.

Pharmacists inform about people attempting to treat depression by themselves, who probably have not addressed doctors for this disorder.

Attention should be paid to the selection of a medicine prescribed for depression treatment by family doctors: drugs of the benzodiazepine group are not suitable for depression treatment, they are more often prescribed in cases of anxiety (10). The worst aspect is that the benzodiazepine class preparations may stimulate suicide (11).

It is rather strange that the psychiatrists treating recurrent depression prescribe the same medicines that have been used in the earlier treatment. However, if depression has recurred, does it not mean that the earlier treatment was unsuccessful? At this point, it is doubtful whether professionals go deep into the causes and course of the disease and are interested in new preparations.

The responses of family doctors and psychiatrists, related to the issues of treatment adjustment and depression recurrence scope, raise doubts as to the quality of depression treatment and the efficiency of professionals in the field while treating this disease.

The majority of the psychiatrists had a relatively long working experience. However, experienced professionals probably not always evaluate the causes of depression carefully enough. For example, in the modern times of physical beauty cult, depression may be caused by obesity (12), serious diseases (13), etc.

When treating a person with recurrent depression, the disease should be considered even more attentively: the reasons for recurrence may be not only the inappropriately selected medication or the wrong diagnosis (14), but also the too early terminated previous treatment, newly arising psychological problems, the changed social status, etc. (15). In particular, it is important to communicate frequently with the patient, to monitor his / her condition at the beginning of treatment and to react in due time if there are no signs of improvement (16).

## CONCLUSIONS

Recent studies and the experience of professionals show that a medicine alone is not enough for treating depression: a combination of individually selected medicines and psychological help is needed. Experienced family doctors and psychiatrists should re-evaluate the changed context and causes of depression and cooperate more closely with pharmacists in order to be informed about the latest antidepressants.

The abundance of cases of recurrent depression, especially recorded by family doctors who have already treated the same patients from depression earlier, encourage to revise the preparation of family doctors to treat this disease. It is recommended to provide doctors with more information and trainings regarding depression. To avoid a long-term ineffective treatment, it should also be reasonable to refer persons with depression to psychiatrists immediately.

In Lithuania, which is a leader in Europe in terms of suicide rates (17), it would be useful to examine the links of suicide with its frequent cause – depression, and to analyze deeper the stories of suicides.

It is high time to evaluate the economic and social impacts of depression; its treatment costs are exorbitant, but generally not recorded. In case of evaluation of this factor, depression treatment would be considered more carefully and responsibly.

Received 18 April 2011

Accepted 26 May 2011

## References

1. Neverauskas J. *Ekonomiškai efektyvus depresijos gydymas (Cost-effective depression treatment)*. Nervų ir psichikos ligos (Nervous and mental diseases). 2003 Jan.
2. Sobocki P, Jönsson B, Angst J, Rehnberg C. Cost of depression in Europe. *J Mental Health Pol. Econ.* 2006; 9(2): 87–98.
3. Keller MB, Shapiro RW, Lavori PW. Relapse in major depressive disorder: Analysis with the life table. *Arch Gen Psychiatry.* 1982; 39: 911–5.

4. Cain JW. Poor response to fluoxetine: underlying depression, serotonergic overstimulation, or a “therapeutic window”? *J Clin Psychiatry*. 1992; 53: 272–7.
5. Nirenberg AA, Grossbard SJ, Fava M. Social adjustment does not predict depressive relapse during continuation of fluoxetine therapy. *J Affect Disord*. 1995; 34: 73–7.
6. Nichols P. *Social Survey Methods*. Oxford: Oxfam; 1991.
7. Wimmer R, Joseph R. *Mass Media Research: An Introduction*. Belmont, MA: Wadsworth, 1997.
8. Breakwell M, Sean H, Fife-Schaw C. *Research Methods in Psychology*. London: Sage; 1995.
9. Michael E., Thase M. Achieving remission and managing relapse in depression. *J Clin Psychiatry* 2003; 64(18).
10. Norkus R, Macevičius G. Benzodiazepinų reikšmė gydant pacientus, sergančius depresija ir nerimo sutrikimais (Role of benzodiazepines in treating depression and anxiety disorders). *Nervų ir psichikos ligos (Nervous and mental diseases)*. 2007; 6.
11. „Relium“ informacinis lapelis (“Relium” patient information leaflet). <http://www.pasveik.lt/vaistai/relium/7057> (2010 08 18).
12. Luppino F, Wit L, Bouvy P, Stijnen T, Cuijpers P, Penninx B, Zitman F. overweight, obesity, and depression: a systematic review and meta-analysis of longitudinal studies. *Arch Gen Psychiatry*. 2010; 67(3): 220–9.
13. Poynter B. Sex differences in the prevalence of post-stroke depression: a systematic review. *Psychosomatics*. 2009; 50(6).
14. Mann J. The medical management of depression. *New Engl J Med*. 2005; 353: 17.
15. Recovery and relapse prevention. Centre for Addiction and Mental Health. [http://www.camh.net/About\\_Addiction\\_Mental\\_Health/Mental\\_Health\\_Information/Depressive\\_Illness/dep\\_illness\\_relapse.html](http://www.camh.net/About_Addiction_Mental_Health/Mental_Health_Information/Depressive_Illness/dep_illness_relapse.html) (2010 12 17).
16. What is the general approach to treating depression? <http://www.medicinenet.com/depression/page7.htm> (2010 06 12).
17. Lietuva pirmąją savižudybių skaičiumi regione (Lithuania takes the first place in suicide rates in the region). <http://www.vtv.lt/naujienos/nusikaltimai/lietuva-pirmauja-savizudybiu-skaiciumi-regione.html> (2010 06 10).

Liubov Kavaliauskienė, Rimantas Pečiūra, Virginija Adomaitienė

## VAISTŲ PANAUDOJIMO GYDANT SERGANČIUOSIUS DEPRESIJĄ RACIONALUMO VERTINIMAS

### Santrauka

**Įvadas.** Išlaidos depresijos gydymui Lietuvoje didėja dėl pasikartojančios depresijos, o tai rodo, jog reikia ištirti, ar racionaliai gydoma pirminė depresija. Šio darbo tikslas – patyrinėti, kaip antidepresantų skyrimą ir panaudojimą Lietuvoje vertina trys specialistų grupės (šeimos gydytojai, gydytojai psichiatrai bei vaistininkai), siekiant ateityje racionalizuoti depresijos medikamentinio gydymo kaštų panaudojimą.

**Tyrimo medžiaga ir metodai.** Depresijos diagnozių duomenys buvo gauti iš Valstybinio psichikos sveikatos centro. 2009 m. buvo apklausti Lietuvoje dirbantys specialistai: 361 vaistininkas, 317 šeimos gydytojų ir 280 psichiatrų. Duomenys apdoroti naudojantis SPSS (*Statistical Package for the Social Sciences*) statistinės analizės programa.

**Rezultatai.** Bendras depresijos diagnozių skaičius tiriamuoju laikotarpiu (2004–2009) išaugo 12 %, tuo tarpu pasikartojančios depresijos – net 27 %. Remiantis šeimos gydytojų nuomone, net 13 % respondentų vis dar negydo savarankiškai ir 62 % apklaustųjų nukreipia pacientus pas psichiatrą pasikartojančios depresijos atveju. Tie šeimos gydytojai, kurie ryžtasi skirti vaistą savarankiškai, dažniausiai skiria sertralina, tačiau net 38 % šios grupės apklaustųjų mini benzodiazepinus. Remiantis šeimos gydytojų atsakymais, 32 % respondentų įvertino gydymo efektyvumą po 4 savaitių ir net 25 % apklaustųjų visai nesterbėjo gydymo. Daugiau nei 50 % apklaustųjų vaistininkų teigė, kad kiekvieną dieną į juos kreipiasi antidepresantų recepto jiems neturintys klientai.

**Išvados.** Pasikartojančios depresijos atvejų gausa, ypač pastebėta šeimos gydytojų praktikoje, verčia iš naujo įvertinti šeimos gydytojų pasirengimą gydyti šią ligą. Specialistų atsakymai skatina susimąstyti apie depresijos gydymo kokybę, darbo efektyvumo gydant šią ligą skirtumus bei formuluoti atitinkamus pasiūlymus, kaip sutaupyti lėšų bei pasiekti ekonominį ir socialinį efektą.

**Raktažodžiai:** depresijos gydymas, antidepresantai, depresijos pasikartojimas