

ОРГАНІЗАЦІЯ ОХОРОНИ ЗДОРОВ'Я

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PARTICIPATION OF PHARMACISTS IN MANAGING THE USE OF HERBAL MEDICINES BY THE ELDERLY

Recent data indicate that the pharmaceutical market for herbal medicines continues to grow steadily, and this enables pharmacists to improve their professional skills in managing the treatment of the elderly with herbal medicines and identify potential problems associated with their use.

Aim. To study the practice of using herbal medicines among elderly patients from the pharmacist's point of view and identify specific recommendations of pharmacists in managing the use of herbal medicines.

Materials and methods. A descriptive design study was conducted; the main research tool was a questionnaire for pharmacists.

Results. Pharmacists' responses indicate that the use of herbal medicines in the elderly is common, herbal preparations are used mainly for treating chronic diseases, and in most cases elderly patients associate the quality of treatment with the co-use of traditional medicines with herbal ones; often older patients also have false information about the requested herbal medicines. This means the need for pharmacists to monitor and supervise the use of herbal medicines by the elderly, special attention should be paid to the results of drug-herbal interactions and to regular updating of knowledge in the field of geriatric pharmaceutical care oriented to herbal therapy.

Conclusions. Based on the results of the study, the problems associated with the use of herbal medicines in the elderly have been described, and some specific recommendations for pharmacists related to the treatment with herbal medicines in the elderly have been proposed.

Key words: pharmacists; herbal medicines; elderly people; pharmacist's counseling.

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УЧАСТЬ ФАРМАЦЕВТІВ В УПРАВЛІННІ ЗАСТОСУВАННЯМ ЛІКІВ РОСЛИННОГО ПОХОДЖЕННЯ ЛЮДЬМИ ПОХИЛОГО ВІКУ

Дані останніх досліджень свідчать, що фармацевтичний ринок рослинних препаратів продовжує стабільно зростати, що дає можливість фармацевтам поліпшити свої професійні навички з моніторингу лікування старих людей ліками рослинного походження і виявити потенційні проблеми, пов'язані з їх застосуванням.

Мета – розглянути практику використання рослинних препаратів серед літніх пацієнтів з погляду фармацевта й окреслити конкретні рекомендації фахівців щодо управління застосуванням рослинних лікарських засобів.

Матеріали та методи. Проведено дослідження описового дизайну з використанням основного інструменту – анкети для фармацевтів.

Результати дослідження. Відповіді фармацевтів свідчать про те, що застосування рослинних лікарських засобів літніми людьми є звичайним явищем. Пацієнти старшого віку використовують зазначені препарати здебільшого для лікування хронічних захворювань, а якість лікування пов'язують з одночасним застосуванням традиційних ліків і рослинних препаратів; також вони часто мають помилкову інформацію про рослинні препарати. Це визначає необхідність моніторингу та нагляду фармацевтів за використанням рослинних препаратів літніми людьми. Особливу увагу має бути приділено результатам взаємодії ліків і рослинних препаратів, а також регулярному оновленню знань в галузі геріатричної фармацевтичної допомоги, орієнтованої на лікування рослинними препаратами.

Висновки. На підставі результатів дослідження описано проблеми, пов'язані із застосуванням літніми людьми лікарських засобів на травах, і запропоновано деякі конкретні рекомендації для фармацевтів, що стосуються лікування рослинними препаратами людей похилого віку.

Ключові слова: фармацевти; рослинні препарати; літні люди; консультація фармацевта.

Statement of the problem. Recent data indicate that the pharmaceutical market for herbal medicines continues to grow steadily. To improve the safety and effectiveness of herbal medicines, all specialists of the medical and pharmaceutical system should advise elderly patients on the peculiarities of using herbal medicines and potential dangers. It is necessary to guide the patient's decision-making and provide for the obligation of consulting the healthcare professional before taking any herbal medicine and encourage elderly patients to report their use of herbal medicines. In Republic of Moldova there is no reliable evidence on the use of herbal medicines by the elderly; therefore, pharmacists should regularly ask elderly patients about any type of medicines used, identify potential problems associated with their use and suggest solutions.

Pharmacists should be aware of the growing use of herbal medicines, and therefore, this is a great opportunity to improve their professional skills in managing herbal therapy in the elderly and provide quality advice in this area.

Analysis of recent research and publications. Herbal medicines are becoming increasingly popular as methods of treating various conditions in the elderly and are an important component of their health self-management. It is widely believed among the elderly that herbal medicines are derived from natural substances, therefore, they are usually considered safe and devoid of side effects, but this opinion is not only incorrect, but also misleading. Most elderly people use herbal preparations for health maintenance and prevention [1-3]. In addition, marketing strategies of various manufacturers of herbal medicines are aimed at attracting older people to consume herbal products because of their anti-aging or rejuvenating effects [4]. However, elderly people are not aware of drug-related problems in the concomitant use of prescription or over-the-counter drugs and herbal medicines; there is a possibility of interaction with any drug. Older people are the largest consumers of prescription, over-the-counter medicines, and herbal medicines; they are most vulnerable to drug side effects and drug-drug interactions [3, 4]. Data from specialized literature have shown that approximately one in four people taking

prescription medications also takes a herbal medicine, and one in three concurrent users is at risk of a potential interaction between them [1, 5, 6]. An assessment of the factors affecting the consumption of herbal medicines, according to the data presented, indicates that old age and higher education were associated with a higher use of herbal preparations. People with chronic diseases are more likely to use herbal medicines than others [7, 8].

Thus, pharmacists are recognized as one of the most accessible healthcare providers and are able to advise patients to make informed decisions not only regarding the use of pharmaceutical products, but also of herbal medicines. But recent data suggest that pharmacists lack general knowledge about herbal medicines, especially regarding the herbal medicine – drug interactions. The factors determining this knowledge gap are limited pharmacy education and post-graduated training in herbal therapy [9].

With this order of ideas, it remains a difficult task for community pharmacists to establish and manage herbal therapy for the elderly. The development of evidence-based guidelines will provide information support to pharmacists in determining which medicine (medicinal product or herbal medicine) is the most suitable for elderly patients, in the appropriate dose and pharmaceutical form, with minimal precautions for this age category, etc. As more and more natural products appear at the pharmaceutical market, it is necessary to provide high-quality pharmaceutical counseling to this group of patients to ensure that patients are also responsible for making informed decisions regarding the use of herbal medicines [10].

Objective statement of the article. The aim of the work was to study the use of herbal medicines among elderly patients from the pharmacist's point of view and identify specific recommendations of pharmacists in managing the use of herbal medicines.

To achieve the proposed aim, the following targets were set:

- analysis of the structure of the use of herbal medicines among the elderly based on specialized literature;
- description of the profile of older people regarding the use of herbal products by interviewing pharmacists;

- identification of ways to optimize pharmacists' knowledge of herbal medicines;
- development of recommendations for pharmacists to improve the safe use of herbal medicines among the elderly.

Materials and methods. A descriptive design study was conducted; the main research tool was a questionnaire for community pharmacists. The questionnaire contained 16 questions describing the pharmacists' attitude towards using herbal medicines in the elderly and four questions about the general data of respondents with further descriptive processing of the data obtained.

Presentation of the main material of the research. 200 questionnaires were validated and analyzed. The main method of data collection was a survey of pharmacists. Two hundred (200) fully completed questionnaires were collected and validated. In the course of the study, no personal data was indicated, among the characteristics in general, age, gender, work experience and working conditions were taken into account.

According to the general characteristics of the respondents, it was determined that the majority of respondents belonged to the age category of 31-40 years, were women (85 %) and worked in a pharmacy for up to 5 years (37 %) from an urban environment (86 %) (Table 1).

The answers received showed that the most interested group of patients in herbal therapy was the elderly (65 %), but for children, herbal medicines were the least required (4 %) (Fig. 1).

Elderly people decide to use herbs on the recommendation of relatives and friends (47 %) or independently (32 %), only 15 % of pharmacists indicated that the choice of herbal products in the elderly was due to their advice (Fig. 2). This means the need to monitor and supervise the use of herbal medicines in the elderly as they do not know which medicines are contraindicated, do not know exactly what side effects medicines may have and especially how herbal medicines will interact with other pharmaceutical products used by the elderly at the same time. The pharmacist by counseling and cooperating with elderly patients will decide which herbal medicines are necessary, which can be used, and which should be avoided.

Table 1

GENERAL CHARACTERISTICS OF PHARMACIST RESPONDENTS

Question	Answer option	Answers in	
		number	%
Your age category	20-30 years	81	40.5
	31-40 years	82	41
	41-50 years	21	10.5
	51+ years	16	8
Your gender	Female	170	85
	Male	30	15
The environment of the pharmacy location	Urban	172	86
	Rural	28	14
Your work experience	Less than one year	22	11
	1-5 years	74	37
	6-10 years	48	24
	More than ten years	56	28

According to pharmacists, elderly people often need herbal medicines (62 %) (Fig. 3).

The most popular pharmaceutical form of herbal therapy is herbal tea blends (51 %); pharmacists most rarely indicate the solution as a form of phytotherapy (7 %) (Fig. 4).

Mostly elderly people seek treatment with herbal medicines, in addition to drugs for treating chronic diseases (51 %), less often for treating minor diseases (34 %) and for treating acute conditions (15 %) (Fig. 5).

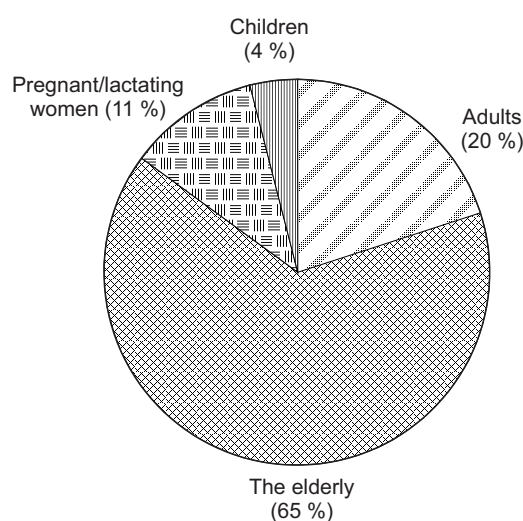


Fig. 1. Patient groups and their interest in herbal therapy

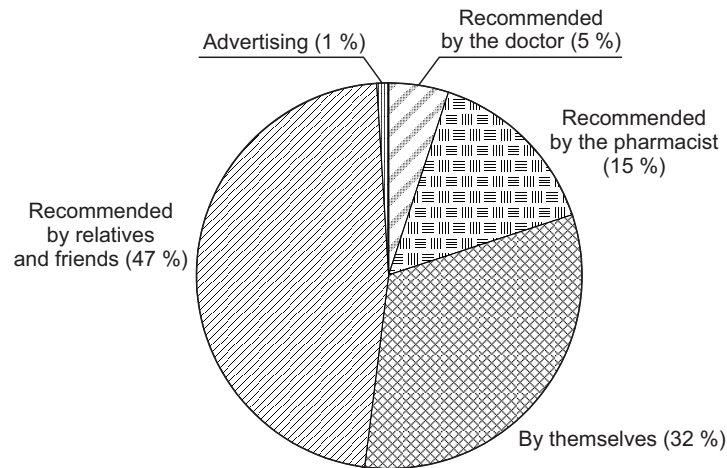


Fig. 2. The basis on which an elderly person decides to use a herbal medicine

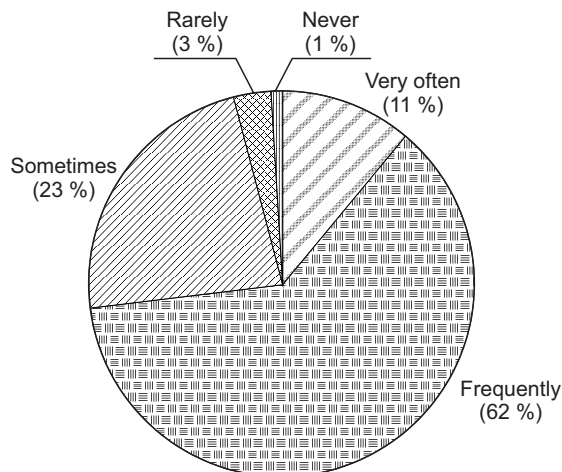


Fig. 3. Indication of how often the elderly person asks for a herbal medicine

59 % of respondents indicated that elderly patients often associate the treatment with both drugs and herbal medicines (Fig. 6).

In this context, counseling of an elderly patient by a pharmacist before he/she chooses an alternative treatment with herbal medicines becomes indispensable. Older people tend to take several medications a day, so they are at greater risk of adverse reactions and potential drug-herbal medicine interactions. Therefore, consultations with pharmacists contribute to better knowledge of the medicinal products used and improve treatment outcomes by reducing drug-related problems.

At the same time, pharmacists believe that when producing herbal medicines incompatibilities between drugs and herbal preparations were rarely (59 %) detected (Fig. 7).

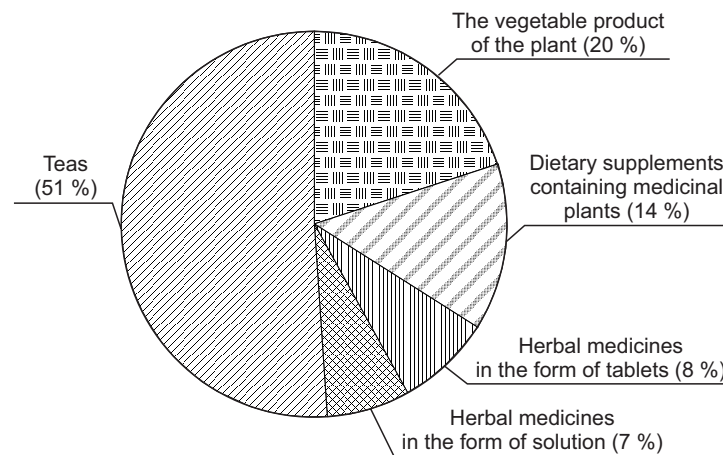


Fig. 4. The most popular medicinal forms of herbal medicines among the elderly

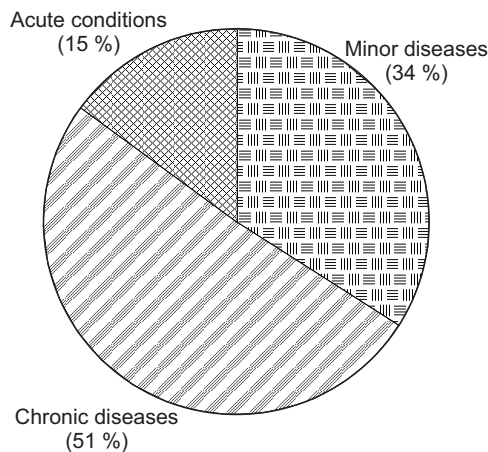


Fig. 5. The types of conditions in which elderly people ask for the treatment with herbal medicines in addition to drugs

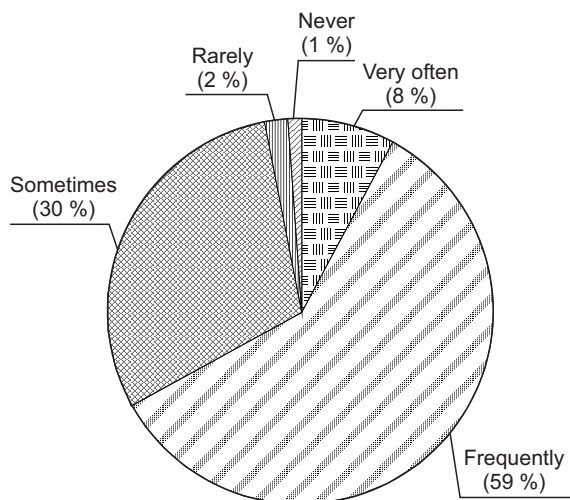


Fig. 6. The frequency with which elderly people combine the treatment with drugs and herbal medicines

Pharmacists consider that older people do not ask enough questions (58.6 %) to be properly informed about the requested herbal medicines (Fig. 8), and their level of knowledge about the medicines is average (73.4 %).

Another disturbing fact is that elderly patients (45 %) often have erroneous information about the requested herbal medicines (Fig. 9).

The importance of good communication between the patient and the pharmacist for providing appropriate counseling is emphasized.

The most popular herbal products by elderly patients in the pharmacy are: herbal tea blends (antihypertensive tea and tea normalizing cholesterol levels, diuretic tea, Arphazetin,

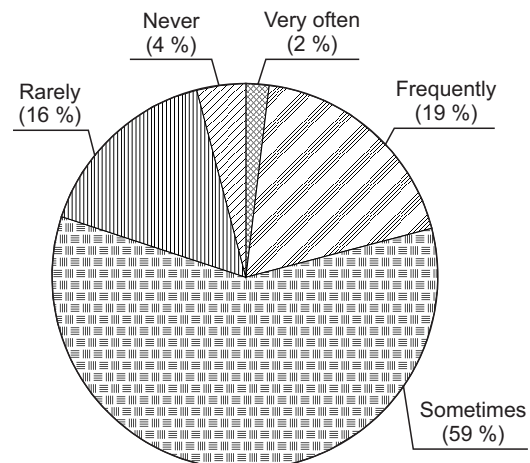


Fig. 7. Indication of how often pharmacists have encountered incompatibilities between medicines and herbal preparations at the time of release

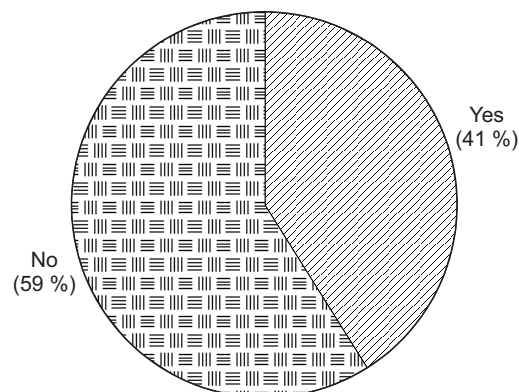


Fig. 8. Do older people ask enough questions to pharmacists to be properly informed about the requested herbal medicines?

Elecasol, kidney tea, pancreatic tea, etc.) and medicinal herbal products (Chamomile, Senna, Orthosiphon, Mentha, Melissa, Echinacea, Gingko, Saint John's wort, Valerian, etc.), tinctures (Valerian, heart drops).

56 % of pharmacists believe that their actual knowledge is sufficient to advise the elderly on the use of herbal medicines (Fig. 10), but 88 % of respondents fully agree with their advantage to regularly update their knowledge in the field of geriatric pharmaceutical care in herbal therapy (Fig. 11).

Among the ways of skills improvement, in most cases (>72 %), the continuing education courses and professional trainings were indicated.

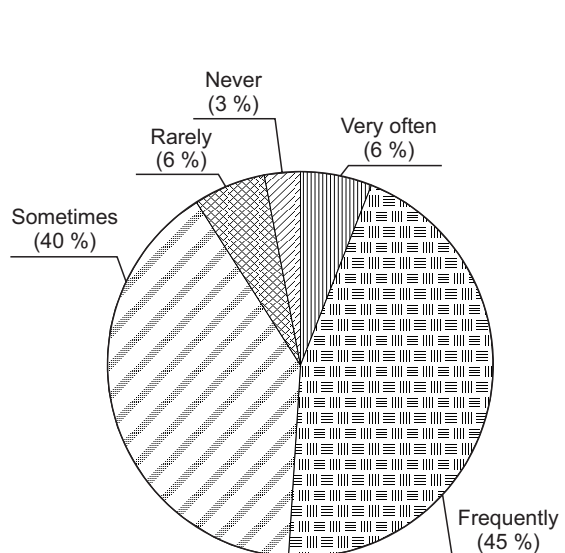


Fig. 9. The frequency with which an elderly person receives incorrect information about the requested herbal medicines

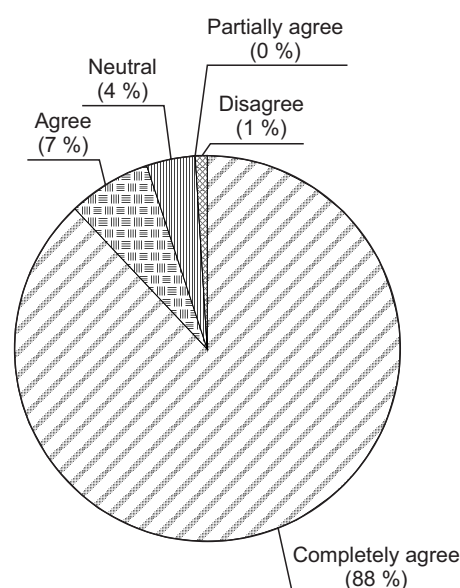


Fig. 11. Should pharmacists regularly update their knowledge in the field of herbal therapy-oriented geriatric pharmaceutical care?

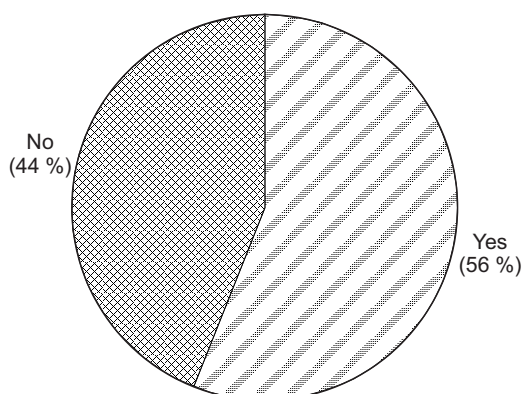


Fig. 10. Do the current knowledge of pharmacists is sufficient to advise the elderly about the use of herbal medicines?

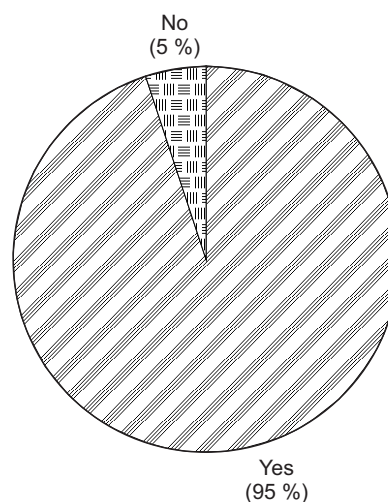


Fig. 12. Does the cooperation of the pharmacist with the attending physician of the elderly improve the therapeutic results after herbal therapy?

In addition, in order to ensure the improvement of the results of herbal therapy, pharmacists in 95 % of cases emphasized the advantages of cooperation between them and physicians (Fig. 12).

Professional development of a pharmacist is one of the main requirements imposed by the current trends in the pharmaceutical system. Comprehensive and multifaceted training ensures the authority of a pharmacist as a specialist in the field of public health.

Conclusions. Based on the results of the study, the problems associated with the use of herbal medicines in the elderly have been described, and some specific recommendations for pharmacists related to the treatment with herbal medicines in the elderly have been proposed.

Rules for pharmacists regarding the proper use of herbal medicines among the elderly are as follows:

1) To check whether the herbal medicine meets the patient's needs, monitor the use

of a dosage, how and why it is recommended (before, during or after meals), frequency of drug taking, incompatibility between medicinal plants or herbs, in other words, choose the right herbal product for the right elderly patient.

2) To contribute to patient education by counseling and answering the patients' questions, providing information about the safety, peculiarities, side effects, and herb-drug interactions, so that the patient can distinguish the safe and effective medicine from a questionable one. Information about herbal medicines should be based on scientific evidence and be available from reliable sources, such as *MedlinePlus (National Library of Medicine)*, *National Center for complementary and Integrative Health*, *Herbalist*, etc.

3) To get acquainted and use informal resources, such as the most indispensable and authoritative international source of available information on the herb-drug interaction – *Stockley's Herbal Medicines Interactions*.

4) To diversify pharmacists' interventions in making the right decisions regarding herbal medicines so that with the help of various tips an elderly patient can manage the use of herbal medicines at home.

5) To implement tools that will help both the pharmacist and the elderly patient to ensure

the safe and effective use of herbal medicines. It is essential that pharmacists can document in the medical record when patients use herbs, which medications or natural products the patient takes, as well as why and who recommended to use them. The application of a herbal medicine should be assessed frequently in order to determine the complete use of prescription drugs, over-the-counter drugs, and herbal preparations.

6) To provide high-quality pharmaceutical care to the elderly, pharmacists must be ready for continuous training, require adequate skills related to the role of pharmacists-consultants and knowledge in the field of phytotherapy of the elderly.

Prospects for further research. Based on the data analysis, the practical recommendations will be developed in the form of a standard operating procedure for managing the use of herbal medicines by elderly people; these guidelines will be used in community pharmacies in the future.

The project of the continuing education program for pharmacists on advanced training in geriatrics has been worked out with the further development of recommendations for the safe and rational use of herbal medicines.

Conflict of interests: authors have no conflict of interests to declare.

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