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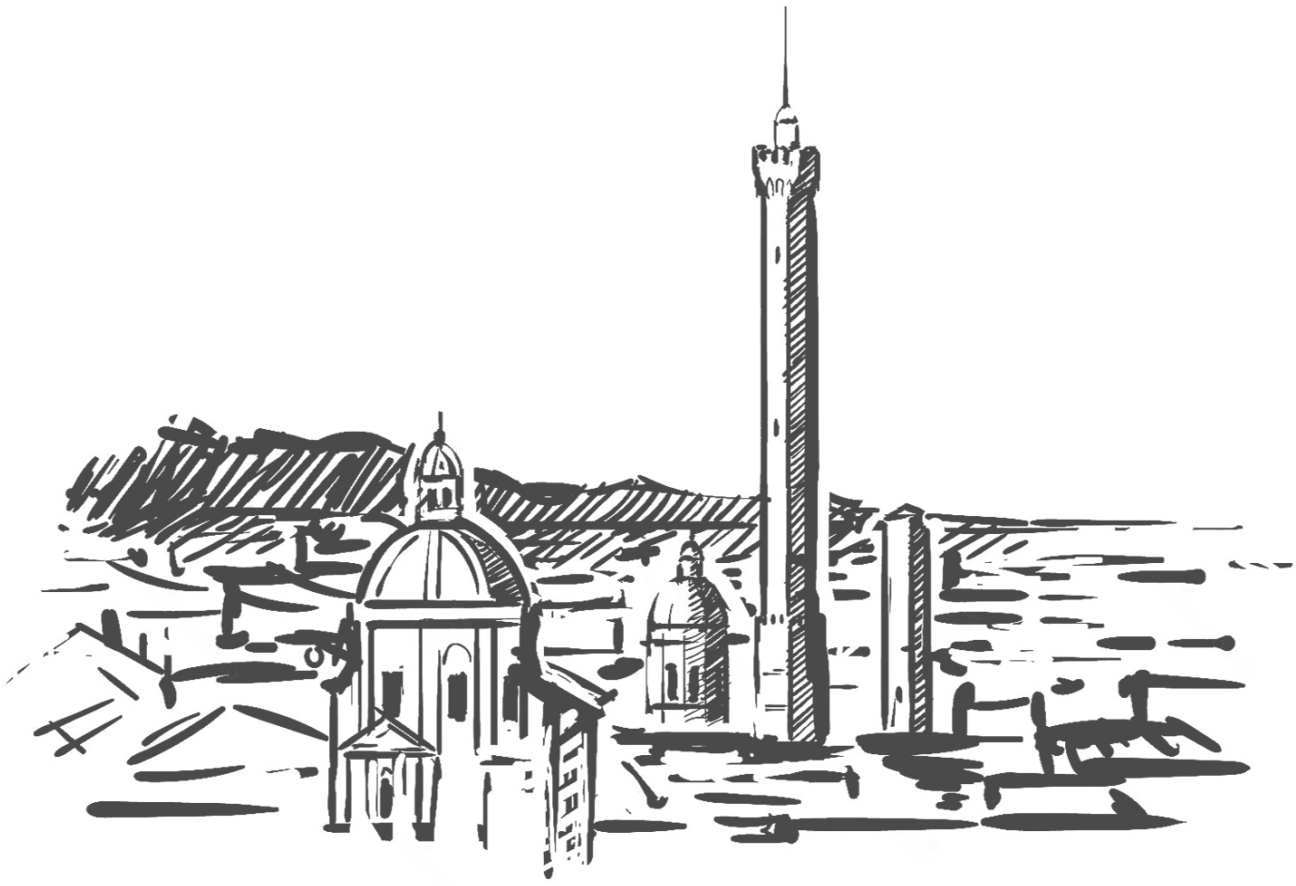
L'ARTE DELLA MENTE SCIENTIFICA

RACCOLTA DI ARTICOLI SCIENTIFICI

CON GLI ATTI DELLA IV CONFERENZA SCIENTIFICA E PRATICA INTERNAZIONALE

RICERCHE SCIENTIFICHE E METODI DELLA LORO REALIZZAZIONE: ESPERIENZA MONDIALE E REALTÀ DOMESTICHE

29 SETTEMBRE 2023 • BOLOGNA, REPUBBLICA ITALIANA



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[3] Kotvitska A. A., Tsubanova N. A., Kononenko N. M., Prosyanyk L. F. Ecopharmacy – a new interdisciplinary direction. Methodology. Development prospects. Social pharmacy in health care. 2018. No. 1. P. 3-11.

[4] Kotvitska, A. A., Kubareva I. V., Surikova I. O. Determination of the content and prerequisites of the formation of the concept of social pharmacy in the countries of the world and in Ukraine. Social pharmacy in health care. 2017. Vol. 3, No. 4. P. 3–9.

[5] Kotvitska A. A., Tarasenko D. Yu., Chmykhalo N. V., Karpenko L. A. Study and practical testing of the basic principles of the concept of decent work as a strategic reference point for the development of the social and labor sphere of the pharmaceutical market. Management, economics and quality assurance in pharmacy. 2019. No. 1 (57). P. 22-32. doi: 10.24959/uekj.19.10.

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PHARMACOECONOMIC JUSTIFICATION OF MEDICAL SUPPLY OF PATIENTS ON THE BASIS OF IMPLEMENTATION OF RATIONAL PHARMACOTHERAPY

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The pharmacoeconomic justification of rational pharmacotherapy and pharmaceutical care of patients requires a complex pharmacoeconomic analysis, which includes the use of a complex of methods.

Pharmacoeconomic analysis, as a complex multi-stage process of research, identification and comparison of clinical results of medical technologies and financial costs for their implementation in order to determine their benefits for an individual, the health care system and society as a whole, combines the justification of costs and financial resources, methods of pharmacoeconomic analysis medical technologies and *their results (Donabedian's triad, 2005) [1].*

The main methods of pharmacoeconomic analysis that are most often used are: cost of illness (COI); cost minimization analysis (CMA); cost-effectiveness analysis (CEA); cost utility analysis (CUA); cost-benefit analysis (CBA).

Each method is used for a specific purpose, in the presence of certain research conditions and has its own scope, compared to other pharmacoeconomic methods of analysis, it has its own disadvantages and advantages. Emphasis on the advantages of using a certain method is relevant for our research.

Cost of illness (COI) is based on determining the costs (direct medical and non-medical, indirect) borne by a health care institution during the diagnosis and treatment of a certain disease. The method is used for the purpose of analyzing the total cost of the disease and determining the amount of costs borne by a certain medical institution (region, society) in connection with the diagnosis and treatment of a certain disease when using different treatment methods.

The advantages of the analysis of the total cost of the disease are that the use of this method makes it possible to determine the full cost of treating a certain disease.

Cost minimization analysis (CMA) is intended for choosing a drug or treatment method with minimal costs. It involves a comparison of the cost of treatment methods, provided they have the same clinical (therapeutic) effectiveness. The pharmacoeconomic analysis, which is carried out with the aim of minimizing costs, allows to confirm the advantage of a cheaper method of treatment or LP, which allows you to save money, under the condition of equal effectiveness. Advantages of cost minimization analysis: simplicity of calculations and no need to evaluate the results of the treatment in monetary terms.

Cost-effectiveness analysis (CEA) involves comparing both the cost (in monetary terms) and the effectiveness (direct and indirect clinical effects) of treatment methods. This analysis makes it possible to carry out a cost evaluation of effectiveness, in particular to estimate the cost of a unit of effectiveness of a treatment method. The condition for carrying out a "cost-effectiveness" analysis is the presence of clinical results of a sufficient level of probability, which provides reliable ways of obtaining information and the possibility of extrapolation of the obtained clinical results for use in new conditions, the presence of a probable difference in the efficiency indicators of the compared treatment methods, and the use of the same units of measurement of efficiency indicators .

Indicators of the effectiveness of the treatment method or LP can be direct clinical effects: changes in physiological, biochemical, physical and other indicators of the patient's body condition, prolongation of life expectancy, indirect clinical effects (reduction in the frequency of complications, reduction in the number of repeated hospitalizations), changes in health indicators in the studied groups of patients, changes in quality of life.

In the case when none of the treatment methods is clearly dominant, the incremental cost-effectiveness ratio (ICER) is determined, that is, the additional amount that must be spent to obtain an additional unit of effectiveness when using a more effective and more expensive treatment method .

Cost-utility analysis (CUA) is a type of "cost-effectiveness" analysis, in which a comparison of the cost of treatment in monetary terms and its effectiveness in indicators of usefulness (utility) is made - the results of treatment expressed in indicators of quality of life. The indicator of utility is most often expressed in QALY (quality adjusted life year - the number of quality years of life gained by the patient as a result of treatment), but it is also possible to use the indicator of utility, which is determined using other methods acceptable in medicine.

When solving the issue of replacing one treatment method with another, it is necessary to calculate the incremental utility indicator (ICUR), that is, the cost of an additional unit of utility, for example, the cost of one additional year of the patient's quality life.

Cost-benefit analysis (CBA) allows you to compare different medical technologies (for example, a set of preventive measures against the flu with a method of treating hepatitis C), because it evaluates both the costs and the results of treatment in monetary terms (the cost of treatment methods is taken into account at the time of evaluating the results). The advantages of the cost-benefit analysis method are: the possibility of using it to evaluate different treatment methods, including those with similar or different consequences (performance indicators); the use of the method is appropriate with limited budget resources, when only one of the treatment methods can be performed.

From a pharmacoeconomic point of view, the most acceptable method of treatment is that which requires less costs per unit of effectiveness (has a lower value

of the CER coefficient). However, in each specific case, the decision to choose a treatment method also depends on other factors: the availability and size of financial resources, the ethics of using a less effective and less expensive treatment method, patient compliance [2-5]. Only in the case of determining a dominant alternative - a method of treatment that guarantees higher efficiency compared to others under the conditions of a lower or the same cost of treatment, the decision regarding its acceptability can be unequivocal.

References:

[1] MeiJen Ho., Joish N.V., E. J. Biskupiak. The role of pharmacoeconomics in formulary management: Triptan case study for migraine. *Pharmacy and Therapeutics Journal*. 2005. 30. P. 46.

[2] Iakovlieva L. V, Mischenko O. Ya., Gerasymova O. O. Pharmacoeconomics : a self-study practice book for training students of speciality: 8.110201. Kharkiv : NUPh, 2015. 94 p.

[3] Pharmacoeconomic – Latest research and news. URL: http://www.nature.com

[4] WHO Drug and Therapeutic Committees: A practical guide, managing the formulary process; pp. 15–21. URL: http://www.apps.who.int/medicinedocs /en/d/Js4882e/5.html

[5] Voskoboynikova G. L., Dovzhuk V. V., Konovalova L. V. Designing improvement of the content and structure of competence formation of pharmacoeconomic justification of rational pharmacotherapy in the process of professional training of masters of pharmacy. *Electronic journal "The theory and methods of educational management"*, 1 (25), 2020. Index Copernicus. URL: http://umo.edu.ua/katalogh-vidanj/electronic-journal-the-theory-and-methods-of-educational-management-edition-2020

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ВИЗНАЧЕННЯ ЖИРНОКИСЛОТНОГО СКЛАДУ САМОСИЛУ ГІРСЬКОГО (TEUCRIUM MONTANUM L.)

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УКРАЇНА

Жирні кислоти є важливими компонентами багатьох рослин і мають різноманітні фізіологічні та біологічні функції. Вони можуть бути використані для вивчення родових, видових та популяційних відмінностей рослин, а також для визначення потенційної фармакологічної активності рослинних видів.

Згідно з даними літератури насичені та ненасичені жирні кислоти виявляють дуже широкий спектр фармакологічної активності. Ненасичені кислоти є структурними елементами фосфоліпідів, клітинних мембран, також сполучної тканини та оболонок волокон нервової системи.

Однією з найважливіших властивостей жирних кислот є участь у процесах окиснення та виділення холестерину з організму людини, що в свою чергу знижує його рівень в крові та перешкоджає утворенню атеросклеротичних бляшок.

Вивчення жирнокислотного складу сировини проводили з використанням методу газової хроматографії на приладі Agilent 6 890 (модель 5973) з масс-детекцією.

Приготування ліпофільних екстрактів проводили шляхом вичерпної екстракції сировини в апараті Сокслета. Отримані екстракти концентрували на ротаційному випаровувачі. Після цього проводили метилування зразків, застосовуючи хлористий ацетил за наявності метанолу. Суміш, що отримали в подальшому екстрагували гексаном за температури 60-65°С. Отримані зразки використовували для подальшої роботи на хроматографі.

Результати проведених досліджень відображені в таблиці 1.

Таблиця 1

Вміст жирних кислот у сировині самосилу гірського

№	Жирна кислота	Вміст у %, від загальної кількості жирних кислот
1	Додеканова (лауринова)	0,64
2	Пентадеканова	0,32
3	Тетрадеканова (міристинова)	25,01
4	Н-гексадеканова (пальмітинова)	11,03
5	Гептадеканова	4,08