



TOM LXXII, 2019, Nr 5 cz II, maj

Rok założenia 1928



Wiadomości Lekarskie is abstracted and indexed in: PubMed/Medline, EBSCO, SCOPUS, Index Copernicus, Polish Medical Library (GBL), Polish Ministry of Science and Higher Education.

Copyright: © ALUNA Publishing.

Articles published on-line and available in open access are published under Creative Common Attribution-Non Commercial-No Derivatives 4.0 International (CC BY-NC-ND 4.0) allowing to download articles and share them with others as long as they credit the authors and the publisher, but without permission to change them in any way or use them commercially.

Zasady prenumeraty miesięcznika Wiadomości Lekarskie na rok 2019

Zamówienia na prenumeratę przyjmuje Wydawnictwo Aluna:

- e-mailem: prenumerata@wydawnictwo-aluna.pl- listownie na adres:

Wydawnictwo Aluna ul. Z.M. Przesmyckiego 29, 05-510 Konstancin-Jeziorna

Prosimy o dokonywanie wpłat na numer rachunku Wydawnictwa: Credit Agricole Bank Polska S. A.: 82 1940 1076 3010 7407 0000 0000

Cena prenumeraty dwunastu kolejnych numerów: 240 zł/rok (w tym 5% VAT)

Cena prenumeraty zagranicznej: 120 euro/rok. Cena pojedynczego numeru – 30 zł (w tym 5% VAT) + koszt przesyłki. Przed dokonaniem wpłaty prosimy o złożenie zamówienia.

In the "Wiadomości Lekarskie" Journal (issue No 4, volume 72, 2019) the article of Nadiia V. Shulzhenko entitled "LEGAL BASES FOR IMPROVING LEGISLATION ON THE TRANSPLANTATION OF HUMAN ANATOMICAL MATERIAL" was published, which after releasing the paper version was withdrawn from the electronic version of the Journal (pdf, www.wiadomoscilekarskie.pl) due to the suspicion of plagiarism.



Editor in-Chief:

Prof. Władysław Pierzchała

Deputy Editor in-Chief:

Prof. Aleksander Sieroń

Statistical Editor:

Dr Lesia Rudenko

Polskie Towarzystwo Lekarskie:

Prof. Waldemar Kostewicz – President PTL

Prof. Jerzy Woy-Wojciechowski – Honorary President PTL

Prof. Tadeusz Petelenz

International Editorial Board - in-Chief:

Marek Rudnicki Chicago, USA

International Editorial Board - Members:

Kris Bankiewicz	San Francisco, USA	George Krol	New York, USA
Christopher Bara	Hannover, Germany	Krzysztof Łabuzek	Katowice, Poland
Krzysztof Bielecki	Warsaw, Poland	Henryk Majchrzak	Katowice, Poland
Zana Bumbuliene	Vilnius, Lithuania	Ewa Małecka-Tendera	Katowice, Poland
Ryszarda Chazan	Warsaw, Poland	Stella Nowicki	Memphis, USA
Stanislav Czudek	Ostrava, Czech Republic	Alfred Patyk	Gottingen, Germany
Jacek Dubiel	Cracow, Poland	Palmira Petrova	Yakutsk, Russia
Zbigniew Gasior	Katowice, Poland	Krystyna Pierzchała	Katowice, Poland
Andrzej Gładysz	Wroclaw, Poland	Tadeusz Płusa	Warsaw, Poland
Nataliya Gutorova	Kharkiv, Ukraine	Waldemar Priebe	Houston, USA
Marek Hartleb	Katowice, Poland	Maria Siemionow	Chicago, USA
Roman Jaeschke	Hamilton, Canada	Vladyslav Smiianov	Sumy, Ukraine
Andrzej Jakubowiak	Chicago, USA	Tomasz Szczepański	Katowice, Poland
Oleksandr Katrushov	Poltava, Ukraine	Andrzej Witek	Katowice, Poland
Peter Konturek	Saalfeld, Germany	Zbigniew Wszolek	Jacksonville, USA
Jerzy Korewicki	Warsaw, Poland	Vyacheslav Zhdan	Poltava, Ukraine
Jan Kotarski	Lublin, Poland	Jan Zejda	Katowice, Poland

Managing Editor:

Agnieszka Rosa amarosa@wp.pl

Graphic design / production:

www.red-studio.eu

International Editor:

Lesia Rudenko l.rudenko@wydawnictwo-aluna.pl

Distribution and Subscriptions:

Bartosz Guterman prenumerata@wydawnictwo-aluna.pl

Publisher:

ALUNA Publishing

Grzegorz Sztank

ul. Przesmyckiego 29, 05-510 Konstancin – Jeziorna www.aluna.waw.pl www.wiadomoscilekarskie.pl

www.medlist.org

REGULAMIN PRZYJMOWANIA I OGŁASZANIA PRAC W WIADOMOŚCIACH LEKARSKICH

- Miesięcznik Wiadomości Lekarskie jest czasopismem Polskiego Towarzystwa Lekarskiego, ma charakter naukowo-edukacyjny. Zamieszczane są w nim prace oryginalne, kliniczne i doświadczalne oraz poglądowe w języku polskim lub angielskim oraz innych językach (za zgodą redakcji).
- 2. Publikacja pracy w Wiadomościach Lekarskich jest płatna. Od stycznia 2017 roku koszt opublikowania artykułu wynosi 1000 zł plus 23%VAT. Jeżeli pierwszym autorem pracy jest członek Rady Naukowej czasopisma lub zespołu recenzentów za druk nie pracy nie pobieramy opłaty, jeśli zaś jest kolejnym współautorem opłata wynosi 500 zł plus 23%VAT. Wydawca wystawia faktury. Opłatę należy uiścić po otrzymaniu pozytywnej recenzji, przed opublikowaniem pracy. Z opłaty za publikację zwolnieni są członkowie Polskiego Towarzystwa Lekarskiego z udokumentowaną opłatą za składki członkowskie za ostatnie 3 lata.
- Prace zapisane w formacie DOC (z wyłączeniem rycin, które powinny stanowić osobne pliki) należy przesłać pocztą elektroniczną na adres redakcji: Agnieszka Rosa - amarosa@wp.pl.
- Objętość prac oryginalnych łącznie z rycinami i piśmiennictwem nie może przekraczać 21 600 znaków (12 stron maszynopisu), prac poglądowych – do 36 000 znaków (20 stron).
- 5. Strona tytułowa powinna zawierać:
 - tytuł w języku angielskim i polskim,
 - pełne imiona i nazwiska autorów,
 - afiliację autorów,
- 6. Praca oryginalna powinna mieć następującą strukturę: wstęp, cel pracy, materiał i metody, wyniki, dyskusja i wnioski, które nie mogą być streszczeniem pracy. Przy zastosowaniu skrótów konieczne jest podanie pełnego brzmienia terminu przy pierwszym użyciu. W pracach doświadczalnych, w których wykonano badania na ludziach lub zwierzętach, a także w badaniach klinicznych, należy umieścić informację o uzyskaniu zgody komisji etyki badań naukowych.
- Streszczenia zarówno w języku polskim, jak i angielskim powinny zawierać 200-250 słów. Streszczenia prac oryginalnych, klinicznych i doświadczalnych powinny posiadać następującą strukturę: cel, materiał i metody, wyniki wnioski. Nie należy używać skrótów w tytule ani w streszczeniu.
- 8. Słowa kluczowe (3-6) należy podawać w języku angielskim i polskim, zgodnie z katalogami MeSH (Medical Subject Headings Index Medicus http://www.nim. nih.gov.mesh/MBrower.html). Słowa kluczowe nie mogą być powtórzeniem tytułu pracy.
- Materiał ilustracyjny ryciny, wykresy, rysunki, fotografie, slajdy powinien być opisany cyframi arabskimi i zapisany jako pliki JPG, TIFF lub EPS o rozdzielczości 300 DPI (nie w plikach tekstowych). Ich opisy należy przesłać w osobnym pliku. W tekście muszą znajdować się odniesienia do wszystkich rycin (w nawisach okrągłych).
- 10. Tabele ich tytuły (nad tabelą) i treść powinny być zapisane w programie Microsoft Word, ponumerowane cyframi rzymskimi. Wszystkie stopki dotyczące tabeli powinny znajdować się poniżej tekstu tabeli. W tekście pracy należy umieścić odniesienia do wszystkich tabel (w nawiasach okrągłych).
- 11. W wykazie piśmiennictwa ułożonym według kolejności cytowania należy uwzględnić wyłącznie te prace, na które autor powołuje się w tekście. W pracach oryginalnych nie powinno być więcej niż 30 pozycji, a w poglądowych nie więcej niż 40 pozycji. Każda pozycja powinna zawierać: nazwiska wszystkich autorów, pierwsze litery imion, tytuł pracy, skrót tytułu czasopisma (wg Index Medicus), rok, numer, stronę początkową i końcową. Przy pozycjach książkowych należy podać: nazwisko autora (autorów), pierwszą literę imienia, tytuł rozdziału, tytuł książki, wydawnictwo, miejsce i rok wydania. Dopuszcza się cytowanie stron internetowych z podaniem adresu URL i daty użycia artykułu oraz o ile to możliwe nazwisk autorów. Każda pozycja piśmiennictwa powinna mieć odwo-

- łanie w tekście pracy umieszczone w nawiasie kwadratowym, np. [1], [3—6]. Pozycje zapisuje się w sposób zaprezentowany w Załączniku nr 1 do niniejszego regulaminu.
- 12. Po piśmiennictwie należy podać adres do korespondencji, nazwisko i imię pierwszego autora, adres, numer telefonu oraz adres e-mail.
- 13. Do pracy należy dołączyć oświadczenie podpisane przez wszystkich autorów określające udział poszczególnych autorów w przygotowaniu pracy (np. koncepcja i projekt pracy, zbieranie danych i ich analiza, odpowiedzialność za analizę statystyczną, napisanie artykułu, krytyczna recenzja itd.), a także oświadczenie, że biorą oni odpowiedzialność za treść. Ponadto należy zaznaczyć, że praca nie była publikowana ani zgłaszana do druku w innym czasopiśmie.
- 14. Jednocześnie autorzy powinni podać do wiadomości wszelkie inne informacje mogące wskazywać na istnienie konfliktu interesów, takie jak:
 - zależności finansowe (zatrudnienie, płatna ekspertyza, doradztwo, posiadanie akcji, honoraria),
 - zależności osobiste,
 - współzawodnictwo akademickie i inne mogące mieć wpływ na stronę merytoryczną pracy,
 - sponsorowanie całości lub części badań na etapie projektowania, zbierania, analizy i interpretacji danych lub pisanie raportu.
 - Konflikt interesów ma miejsce wtedy, gdy przynajmniej jeden z autorów ma powiązania lub zależności finansowe z przemysłem bezpośrednie lub za pośrednictwem najbliższej rodziny. Jeśli praca dotyczy badań nad produktami częściowo lub całkowicie sponsorowanymi przez firmy, autorzy mają obowiązek ujawnić ten fakt w załączonym oświadczeniu.
- Każda praca podlega weryfikacji w systemie antyplagiatowym (zapora ghostwriting).
- 16. Redakcja przestrzega zasad zawartych w Deklaracji Helsińskiej, a także w Interdisciplinary and Guidlines for the Use of Animals In Research, Testing and Education, wydanych przez New York Academy nof Sciencees' Adhoc Resarch. Wszystkie prace odnoszące się do zwierząt lub ludzi muszą być zgodne z zasadami etyki określanymi przez Komisję Etyczną.
- 17. Czasopismo recenzowane jest w trybie podwójnej, ślepej recenzji. Nadesłane prace są oceniane przez dwóch niezależnych recenzentów, a następnie kwalifikowane do druku przez Redaktora Naczelnego. Recenzje mają charakter anonimowy. Krytyczne recenzje autorzy otrzymują wraz z prośbą o poprawienie pracy lub z decyzją o niezakwalifikowaniu jej do druku. Procedura recenzowania artykułów jest zgodna z zaleceniami Ministerstwa Nauki i Szkolnictwa Wyższego zawartymi w opracowaniu "Dobre praktyki w procedurach recenzyjnych w nauce" (Warszawa 2011) i szczegółowo została opisana na stronie http://www.nauka.gov.pl/q2/oryginal/2014_02/307f933b1a75d6705a4406d5452d6dbf.pdf
- 18. Redakcja zastrzega sobie prawo redagowania nadesłanych tekstów (dokonywania skrótów i poprawek). Prace są wysyłane do akceptacji autorów. Poprawki autorskie należy przesłać w terminie 3 dni od daty wysłania wiadomości e-mail (pocztą elektroniczną). Brak odpowiedzi w podanym terminie jest równoznaczny z akceptacją przez autora nadesłanego materiału.
- Przyjęcie pracy do druku oznacza przejęcie praw autorskich przez Redakcję Wiadomości Lekarskich.
- 20. Autorzy otrzymują nieodpłatnie plik PDF wydania, w którym znajduje się ich praca, a na życzenie egzemplarz drukowany. Plik elektroniczny przeznaczony jest do indywidualnego użytku autora, bez prawa do rozpowszechniania bez zgody redakcji.
- 21. Prace przygotowane niezgodnie z regulaminem zostaną zwrócone autorom do poprawienia.
- 22. Redakcja nie odpowiada za treść zamieszczanych reklam.



SPIS TREŚCI

31 13 11(L3 C)	
PRACE ORYGINALNE / ORIGINAL ARTICLES Aidyn Salmanov, Viktor Litus, Sergiy Vdovychenko, Oleksandr Litus, Lena Davtian, Sergiy Ubogov, Yuriy Bisyuk, Anna Drozdova, Iryna Vlasenko HEALTHCARE-ASSOCIATED INFECTIONS IN INTENSIVE CARE UNITS	96:
Andriy N. Skrypnikov, Olha V. Sheshukova, Oleksii A. Kazakov, Valentyna P. Trufanova, Tetiana V. Polishchuk, Iryna M. Tkachenko ORAL STATUS IN ADOLESCENTS WITH ALCOHOL ADDICTION	970
Ihor I. Yuryk, Yaroslav Ya. Bodnar, Svitlana V. Trach-Rosolovska, Olena I. Hladii, Petro Ya. Bodnar, Volodymyr D. Voloshyn PECULIARITIES OF MORPHOLOGICAL CHANGES OF ENDOTHELIOCYTES AND REMODELING OF THE ARTERIES UNDER THE EXPERIMENTAL HYPERCHOLESTEROLEMIA	97
Yuliia V. Popelo, Pavlo I. Tkachenko, Serhii O. Bilokon IMPACT OF POLYCHEMOTHERAPY ON THE ORAL SOFT TISSUES IN CHILDREN WITH MALIGNANT ABDOMINAL TUMORS	978
Valeryi A. Degtyar, Volodymyr M. Baibakov, Dmytro M. Lukianenko MEDICAL — SOCIAL REHABILITATION IN A CASE OF THE METAEPIPHYSEAL OSTEOMYELITIS AT THE CHILDREN	983
Olena P. Babkina, Volodymyr V. Zosimenko, Svitlana I. Danylchenko, Andriy A. Chernozub, Illia I. Vako, Dmytro V. Morozenko USAGE OF HISTOLOGICAL METHODS IN DETERMINING THE PRESCRIPTION OF KIDNEY INJURIES IN FORENSIC MEDICAL PRACTICE	98
Lyubov V. Smahlyuk, Nelia V. Kulish, Alevtyna M. Bilous, Olena V. Luchko X-RAY ANALYSIS OF THE MANDIBLE IN PATIENTS WITH CROSSBITE AND MANDIBULAR DISPLACEMENT	99:
Marianna O. Dashko, Orysya O. Syzon, Iryna O. Chaplyk-Chyzho, Solomiya A. Turkevych PATHOGENETIC PECULIARITIES OF NEUROENDOCRINE AND METABOLIC DISORDERS IN PATIENTS WITH ACNE ASSOCIATED WITH CHRONIC STRESS	993
Svetlana A. Pavlenko, Elena V. Pavlenkova, Iryna M. Tkachenko, Alla I. Sidorova, Yaroslav Y. Vodoriz, Andriy V. Samoylenko CHANGES IN THE FUNCTIONAL CONDITION OF THE MASTICATORY MUSCLES WITH INCREASED TEETH ABRASION	100
Igor I. Kobza, Oksana Z. Didenko, Ostap G. Yavorskyi, Taras I. Kobza THE DYNAMICS OF BLOOD PRESSURE OF DIFFERENT AGE PATIENTS GROUPS WITH HYPERTENSION AND DIABETES TYPE II AFTER CORRECTION OF CAROTID STENOSIS	100
Tetiana I. Miier, Larysa S. Holodiuk, Lina M. Rybalko, Igor A. Tkachenko CHRONIC FATIGUE DEVELOPMENT OF MODERN HUMAN IN THE CONTEXT OF V. VERNADSKY'S NOSOPHERE THEORY	101
Taras R. Hlushko, Yuriy V. Vovk, Volodymyr Yu. Vovk CLINICAL LABORATORY ANALYSIS OF MAXIMUM INTERCUSPATION REGISTRATION RESULTS IN PATIENTS WITH INTACT DENTITIONS	101
Anna O. Bezkorovayna, Denys O. Nakonechnyi, Iryna M. Bezkorovayna PSYCHOLOGICAL ASPECTS OF EXAMINATION OF OPHTHALMIC PATIENTS WITH DIABETIC RETINOPATHY	102
Lubov V. Hryhorenko, Volodymyr M. Baibakov, Iryna A. Zayats, Mykhailo V. Solomenko, Oleksandr A. Romanenko DYNAMICS OF INFECTIOUS AND PARASITOGENIC MORBIDITY AT THE CHILDREN POPULATION IN THE RURAL DISTRICTS AND CORELATION WITH WATER FACTOR	1029
Natalia A. Lyakhova, Alevtyna M. Bilous, Oleg M. Nesterenko, Tetiana V. Pluzhnikova, Oksana I. Krasnova, Mariia M. Tovstyak, Valentyna M. Sokolenko ANALYSIS OF THE RESULTS OF THE QUESTIONNAIRE OF ORTHODONTISTS AND CHILDREN DENTISTS OF POLTAVA-CITY ON THE OPTIMIZATION OF ORTHODONTIC AIDS FOR CHILDREN	103:
Maryna V. Shevchenko, Tetiana P. Yurochko, Iryna I. Hrechko FACTORS OF WORKING ENVIRONMENT INFLUENCING OCCUPATIONAL STRESS AMONG PRIMARY HEALTH CARE DOCTORS IN UKRAINE	1038
Lyubov V. Smaglyuk, Anastasiia V. Liakhovska EMG-CHARACTERISTIC OF MASTICATORY MUSCLES IN PATIENTS WITH CLASS II MALOCCLUSION AND TEMPOROMANDIBULAR DISORDERS	104:
Lyudmila F. Kaskova, Tetyana B. Mandziuk, Larissa P. Ulasevych, Natallia B. Kuzniak PHYSICAL INDICES OF THE ORAL FLUID IN CHILDREN WITH CARIES AND INTACT TEETH AT DIFFERENT AGE PERIODS	1048
Serhii Y. Makarov, Nataliya V. Stoyan, Ihor V. Serheta, Oksana A. Taran, Oksana V. Dyakova PECULIARITIES OF THE INTERACTION OF THE INDICATORS OF PSYCHOPHYSIOLOGICAL ADAPTATION OF MODERN STUDENTS IN THE CONTEXT OF THE EFFECTIVE MONITORING OF INDIVIDUAL HEALTH OF YOUNG WOMEN AND YOUNG MEN	105:

1053

Oleksandr V. Petryshyn, Evgenia Ya. Shapoval, Serhii M. Novik THE PHYSIOLOGICAL CHARACTERISTIC SYSTEM CONTROL OF WORKING ACTIVITY IN THE PROCESS OF TRAINING PROSPECTIVE HEALTHCARE PROFESSIONALS	1059
Maksim Y. Zak, Mykola O. Klymenko, Nataliia O. lakovenko, Genadiy V. Grischenko MEDICO-SOCIAL VALUE OF OSTEOARTHRITIS. SECONDARY PREVENTION AND TREATMENT OF OSTEOARTHRITIS IN COMORBIDITY WITH CHRONIC GASTRITIS	1064
Valeriy Pokhylko, Olena Kovalova, Yuliia Cherniavska, Svitlana Tsvirenko, Yuliia Klymchuk DEVELOPMENT OF ARTERIAL HYPOTENSION IN PREMATURE INFANTS WITH EARLY ONSET BACTERIAL INFECTIONS: TOOLS OF CLINICAL PREDICATION	1068
Valeriy O. Zhamardiy, Viktoriya I. Donchenko, Anatoliy V. Yemets, Yevheniia O. Skrinnik PHYSICAL DEVELOPMENT BY MEANS OF FITNESS TECHNOLOGIES AS ONE OF GENERAL ASPECTS OF STUDENT'S HEALTH	1074
Julia V. Sidash, Elena V. Tkachenko POSSIBILITIES AND PERSPECTIVES OF HUMAN TYPOLOGIES TAKING INTO ACCOUNT IN DENTISTRY	1079
Mykola H. Prodanchuk, Galyna M. Balan, Nataliia M. Bubalo, Petro H. Zhminko, Oleksandr A. Kharchenko, Yevgen A. Bahlei THE PROBLEM OF ACUTE PESTICIDE POISONINGS OF AGRICULTURAL WORKERS IN UKRAINE UNDER THE CONDITIONS OF THE NEW BUSINESS PATTERNS	1083
PRACE POGLĄDOWE / REVIEW ARTICLES Valentyn M. Dvornyk, Inna V. Bielikova, Ludmyla M. Shylkina, Valentyna L. Filatova, Natalia M. Martynenko ANALYSIS OF THE MORTALITY RATE AMONG THE POPULATION OF THE POLTAVA REGION AND THE WAYS OF ITS REDUCTION	1087
Yevhen Yu. Strashko, Kateryna V. Pocheniuk, Ihor M. Skrypnyk DYNAMICS OF THE INCIDENCE, PREVALENCE AND DISABILITY OF DIABETES MELLITUS IN CHILDREN AGED 0 TO 17 YEARS IN THE POLTAVA REGION OVER THE PERIOD OF 2008-2017	1092
Anna V. Fastivetz, Pavlo V. Khomenko, Valentyna V. Onipko, Anatoliy V. Emetc, Yevheniia O. Skrinnik MEDICAL ASPECTS OF SPECIALIST TRAINING IN PHYSICAL THERAPY AND ERGOTHERAPY IN THE SYSTEM OF HIGHER EDUCATION OF UKRAINE	1098
Liudmyla O. Samilyk, Valeriia O. Maliarova, Olena V. Dzhafarova, Tetyana I. Gudz, Vitaliy B. Kovalchuk COMPLEMENTARY MEDICINE: INTERNATIONAL EXPERIENCE OF FUNCTIONING AND SPECIFIC FEATURES OF THE APPLICATION IN UKRAINE	1103
Vyacheslav M. Zhdan, Iryna A. Holovanova, Maksim V. Khorosh, Mariia M. Tovstiak, Andriy M. Zinchuk COMPARATIVE ANALYSIS OF THE DYNAMICS OF MODIFIED RISK FACTORS OF NON-COMMUNICABLE DISEASES AMONG THE POPULATION OF CHINA AND UKRAINE	1108
Ozar P. Minser, Maksim M. Potiazhenko, Ganna V. Nevoit EVALUATION OF THE HUMAN BIOELECTROMAGNETIC FIELD IN MEDICINE: THE DEVELOPMENT OF METHODOLOGY AND PROSPECTS ARE AT THE PRESENT SCIENTIFIC STAGE	1117
Oleksandr Havlovskyi DYNAMICS OF THE PREVALENCE OF AFFECTIVE AND NEUROTIC DISORDERS ON THE EXAMPLE OF THE POLTAVA REGION FOR 2014-2018	1122
Anastasiia A. Hrynzovska, Iryna A. Holovanova, Anatolii M. Hrynzovskyi LUBNY PHARMACY AS A FOUNDATING STRUCTURE OF MILITARY FARMACY IN UKRAINE	1126
Larysa I. Arkusha, Iryna V. Hloviuk, Serhii V. Zavalniuk PROBLEMS OF COUNTERFEITING MEDICAL PRODUCTS IN UKRAINE	1131
Tetiana V. Pluzhnikova, Oksana I. Krasnova, Svitlana S. Kasinets, Svitlana M. Tanyanskaya, Natalia V. Yaroshenko, Iryna A. Kolenko ANALYSIS OF MORBIDITY AND CAUSES OF INFANT MORTALITY IN POLTAVA	1136
Oksana V. Sirenko, Elena V. Linnik, Lyubov V. Omelchuk, Vitaliy I. Bida, Serhii M. Hermanchuk, Serhii V. Irkha CURRENT LEGAL ISSUES OF CONDUCTING A FORENSIC MEDICAL EXAMINATION OF NEWBORNS' CORPSES	1140
Natalia O. Rynhach, Raisa O. Moiseenko CALCULATION OF LOSS OF CHILD MORTALITY IN UKRAINE AS AN INSTRUMENT FOR ESTIMATION OF ACHIEVEMENTS OF SUSTAINABLE DEVELOPMENT GOALS IN UKRAINE	1145
STRESZCZENIA WYSTĄPIEŃ NA KONFERENCJI / ABSTRACT BOOK ALL-UKRAINIAN SCIENTIFIC AND PRACTICAL TELECONFERENCE WITH INTERNATIONAL PARTICIPATION "POLTAVA'S DAYS OF PUBLIC HEALTH" MAY 31, 2019, POLTAVA, UKRAINE	1150

PRACA POGLĄDOWA REVIEW ARTICLE



COMPLEMENTARY MEDICINE: INTERNATIONAL EXPERIENCE OF FUNCTIONING AND SPECIFIC FEATURES OF THE APPLICATION IN UKRAINE

Liudmyla O. Samilyk¹, Valeriia O. Maliarova², Olena V. Dzhafarova², Tetyana I. Gudz², Vitaliy B. Kovalchuk³

- ¹UNIVERSITY OF THE STATE FISCAL SERVICE OF UKRAINE, IRPIN, UKRAINE
- ²KHARKIV NATIONAL UNIVERSITY OF INTERNAL AFFAIRS, KHARKIV, UKRAINE
- ³NATIONAL UNIVERSITY "LVIV POLYTECHNIC", LVIV, UKRAINE

ABSTRACT

Introduction: Finding an optimal model for the development and functioning of the health care system is an important aspect for most economically developed countries. **The aim** of this article is to comprehensively study the problems of functioning of complementary (alternative) medicine, to identify the main tendencies of its development in some foreign countries and specific features of its application in Ukraine.

Materials and methods: During the research the authors have used theoretical methods (analysis, synthesis, generalization, systematization, etc.) and empirical methods (observation, classification, etc.) of scientific research.

Review: The conducted study provides grounds for arguing that complementary (alternative) medicine in various forms exists in most countries of the world and is promoted by the World Health Organization (hereafter – WHO). However, the legal regulation of complementary medicine and its interaction with the traditional medicine are significantly different. It has been established that a significant part of patients use alternative methods of treatment, neglecting the information interaction with the attending physician. The authors have revealed the shortcomings of permitting procedures concerning the activity of healers, the result of which there are many fraud cases in this sphere.

Conclusions: The authors have proved the necessity of improving the legislative base for the regulation of complementary medicine, integration of alternative methods into official medicine, improvement of the system of professional training of physicians, determination of the volume of usefulness and benefits of medical aid by alternative methods, expansion of international cooperation and exchange of experience with foreign specialists practicing the use of complementary medicine.

KEY WORDS: complementary medicine, alternative medicine, nonconventional methods, healing

Wiad Lek 2019, 72, 5 cz. II, 1103-1107

INTRODUCTION

The main documents regulating the development of the public health system in Ukraine as part of global health for the period up to 2020 are: "Health-2020. Fundamentals of Politics and Strategy" (adopted by the 62nd session of the WHO Regional Office for Europe, Malta, 2012, Resolution EUR / RC62 / 8) [1]; "European Action Plan for Strengthening Public Health Capacity and Services" (adopted by the 62nd session of the WHO Regional Office for Europe, Malta, 2012, Resolution EUR / RC62 / 12 Rev.1) [2]; Decision 851/2004 / EU of the European Parliament and of the European Council dated from April 21, 2004 on the establishment of the European Center for Disease Prevention and Control [3].

It is believed that in order to achieve positive results of public health, medicine, law, psychology should be the basis for building an effective system of medical care.

Complementary and Alternative Medicine (CAM) is worldwide either an integral part of providing health care or supplementing traditional health care. Since the curiosity of such methods of prevention and treatment is increasing, there is a need to outline their legal certainty and the possibility of deeper integration into health care systems.

THE AIM

The aim of this article is to comprehensively study the problems of functioning of complementary (alternative) medicine, to identify the main tendencies of its development in some foreign countries and specific features of its application in Ukraine. The main task of the article is to find out the effectiveness of the application of complementary medicine in foreign countries, to determine the extent of its impact on the health care system in Ukraine and to identify the disadvantages of functioning, as well as to formulate propositions for their elimination, taking into account the positive foreign experience.

MATERIALS AND METHODS

The authors of the article used the results of the survey of patients with cancer, diabetes mellitus and psychiatric disorders regarding the application of alternative treatment methods along with traditional evidence-based medicine. The authors have also accomplished a comprehensive analysis of current national and foreign legislation, analytical materials (in particular, findings from the National Health Survey of 2012 performed by the Department of Health Policy and Management, Minnesota University) in order to determine the peculiarities and shortcomings of legal regulation in this sphere. Theoretical methods (analysis, synthesis, generalization, systematization, etc.) and empirical methods (observation, classification, etc.) were used during the research.

REVIEW AND DISCUSSION

In 2002 the World Health Organization (WHO) has determined the strategy on the place and importance of complementary medicine in the health care system, and has recognized that this area is one of the resources of the primary health care service that facilitates its accessibility and improvement of public health [4].

Under the complementary medicine (the translation from English "supplementary medicine"), we should understand all types of alternative areas of medicine that are used in conjunction with officially recognized methods.

There are many synonymous terms for complementary medicine. Some of them are based on its opposition to official medicine (for example, alternative and official, traditional and non-traditional, etc.). This division is not typical for all countries. For example, complementary and alternative medicine in the United States is one of the areas of healthcare that does not compete with official medicine and even complements it. However, complementary medicine in most countries is allowed, although it does not get state support.

The fundamental difference of complementary medicine is orientation on the internal forces of the patient's body, which must actively fight the disease. This means the concentration, mobilization and redistribution of internal reserves and capabilities of the patient's body, which can not be involved and used by traditional therapeutic means. The benefits of complementary medicine have long been estimated in some foreign countries, but more effective is considered scientific medicine within surgical intervention. So, in case of symptoms of appendicitis, a person appeals to a surgeon. However, in the future, while the recovery process after the surgery, the use of complementary medicine methods may be more effective. The use of this type of medicine is also quite common in the treatment of various chronic diseases.

Models of using complementary medicine vary according to the country, customs, culture, life, and standard of living of the population. As a rule, the use of alternative therapies is considered in the context of three main models:

1. Application in the countries where non-traditional medicine is one of the main sources of health care provision. This is typical for those countries, where there are restrictions on the provision of medical services (for example, in Africa, there is 1 healer per 500 people, and 1 physician per 40 thousand people) [5].

- 2. Application due to cultural or historical influences. So, in the Republic of Korea and Singapore, where the normal health care system is well developed, 86% and 76% of the population are still using non-traditional medicine services [6].
- 3. The application of alternative methods as an additional treatment along with the traditional one. The combination of techniques is quite often used in the countries with well-developed health care systems, for example, in

North America and in a number of European countries. Folk medicine in Ukraine exists in parallel with the official one. This is confirmed by the provisions of Part 1 of the Art. 741 of the Law of Ukraine "The Basis of the Legislation of Ukraine on Health Care" dated from November 19, 1992 [7], where folk medicine (healing) is defined as methods of recovery, prevention, diagnosis and treatment, based on the experience of many generations of people, established in folk traditions and do not need state registration. This law provides the possibility for persons who do not have special medical education, but who are registered in the manner prescribed by the law as individuals-entrepreneurs and received special permission, to be involved in folk medicine (healing).

Unfortunately, the Ministry of Health of Ukraine critically assesses the legislative definition of this activity and the existing permitting procedures for its implementation. According to the Ministry of Health of Ukraine, the experience of many generations and establishment in the national traditions can only be proved by ethnologists or culturologists, but the Ministry does not have such specialists. Besides, specialists of the Ministry of Health of Ukraine believe that any methods of rehabilitation, diagnosis and treatment should be safe and effective for patients. However, the safety and effectiveness of alternative medicine methods have not been tested by clinical trials or scientific experiments [8].

Unacceptable position of the Ministry of Health of Ukraine regarding alternative treatment methods is confirmed by the fact that the Government of Ukraine submitted to Verkhovna Rada of Ukraine the draft Law No. 9062 dated from September 9, 2018 [9], which contains propositions to exclude the Art. 74¹ from the Fundamentals of the Ukrainian legislation on health care, which regulates the right to be involved in folk medicine (healing) and obliges the Ministry of Health of Ukraine to issue appropriate permits (currently, the draft is being processed by the Health Care Committee of Verkhovna Rada of Ukraine).

Another position has the WHO, which declared about the need for cooperation of the international community, governments, professional organizations of health care employees to ensure the proper use of folk medicine in strengthening people's health. Recognizing the progress made by governments in many countries to integrate traditional medicine into national health care systems, the WHO has called for strengthening the relationship between classical and traditional medicine providers and the development of appropriate integrated health education programs for health care professionals [10].

The resolution of the 62nd session of the World Health Assembly called for the development of traditional medicine on the basis of scientific research and innovation, as well as for the improvement of legal regulation of the activities of practitioners of traditional medicine and promoting their knowledge and skills in cooperation with representatives of health care [11].

The legal regulation of complementary (alternative) medicine in the countries of the European Union considerably differs in terms of approaches and the scope. A number of European countries have legislation to regulate complementary (alternative) medicine, for example, Belgium, Bulgaria, Denmark, Germany, Hungary, Iceland, Norway, Portugal, Romania, Slovenia. The provisions on non-traditional medicine in Switzerland are approved even in the national Constitution. Legislation in some countries fragmentarily regulates alternative treatments, focusing on specific types (Finland, Italy, Lithuania, Latvia, Romania, United Kingdom). However, there are countries, where there is no legislative regulation of this sphere of activity.

Complementary (alternative) medicine in countries of Central and Southern Europe is used only by physicians, and medical practice beyond the legal regulation is illegal and is considered as a crime. Anyone in Northern Europe can provide such services, and restrictions are applied only to specific medical activities (for example, surgery, anesthesia). Legislation in Hungary and Slovenia allows certain types of non-traditional medicine to be practiced by qualified specialists without medical education, and some types only by physicians. There are countries, where some types of non-traditional medicine are recognized as specific medical specialties. In several countries diplomas of physicians who have completed a full course on a particular type of complementary medicine are issued and recognized by national medical associations / chambers / councils. However, there are no mutual recognition of diplomas among the various EU Member States, which impedes the free movement of physicians. Approximately 180,000 physicians in the European Union have been trained and educated in one or more forms of complementary medicine [12, p. 84].

The private and law approach is predominantly applied in the US, and the patient is given more freedom of choice. Thus, the Texas Court (USA) ruled that the right to choose one form of treatment is a private human right. Along with other decisions, the court ruled that choices in health care are deeply personal matter [13].

The costs on complementary medicine in many countries are partially funded by state and private insurance companies. More and more physicians in such countries are interested themselves in non-traditional treatment methods, because this allows them to reduce hospitalization and increase the opportunity to compensate the costs. So, many French physicians are specialists in the field of homeopathy and acupuncture. These two types of services are compensated by social security if they are assigned or performed by the physician. The Tournai-Ath social insurance company in Belgium partially reimburses

for some additional / alternative treatment options, for example, for homeopathic remedies. In Germany, state and private insurance also compensates some of the costs on complementary medicine [14].

There are certain features of the licensing procedure in Ukraine for the application of non-traditional treatment methods. In particular, in order to obtain a special permit from the Ministry of Health of Ukraine to have the right to be involved in such activities, it is necessary to obtain the conclusion of the state sanitary-and-epidemiological examination (on the presence of the premises that meets the established requirements) and a certification-expert conclusion confirming the presence of healing abilities (involves a three-level verification: interview, attestation - the procedure for determining the level of theoretical knowledge, which establishes the level of training on the basis of medical knowledge and the claimed by the challenger method of traditional medicine, through passing tests and situational tasks; expert evaluation – verification of practical skills and knowledge on selected patients). Since the procedure for obtaining the special permit from the Ministry of Health of Ukraine is complicated, there are abuses and violations while issuing the indicated conclusions. At the same time the issued permits do not give the healer the right to treat patients with cancer, with acquired immunodeficiency syndrome, infectious and some other diseases.

Many countries unlike Ukraine permit and even support at the state level joint treatment of cancer patients with non-traditional methods, together with a professional oncologist, and state funds finance further research in this direction [15]. The aim of combining these two areas of medicine is to prevent or minimize the negative effects of chemotherapy, to correct and stabilize the psycho-emotional state, to reduce pain, and to improve the quality of life in general.

The use of complementary (alternative) medicine (CAM) in cancer patients has been documented in major cities in the United States, Canada, Europe, Nigeria, and Saudi Arabia. These studies demonstrate that cancer patients who received chemotherapy, simultaneously used an alternative method.

An example of this is Ireland, where there were two studies in cancer centers, which recorded the use of CAM. The study was conducted with the participation of 81 patients, of which 51 women (63%). Most (93.8%) of the patients in the sample were between the age of 41 and 80 years. 47 (58%) patients reported about the use of CAM simultaneously with conventional chemotherapy. The average cost of CAM was less than 20 euros per month, but five patients (6.2%) spent more than 100 euros per month. The main reasons for receiving CAM were the improvement of life quality (23.5%), improvement of psychological / emotional well-being (17.3%), immunity increase (16%), elimination of side effects of cancer (9.9%), elimination of side effects of treatment (8.6%) and directly the effectiveness of treatment / cure for cancer (2.5%). Patients who used CAM noted as sources of information health care employees (30.9%), family / friends (19.8%), the media (13.6%), and practitioners in this area (2, 5%). Only 27 (33.3%) patients out of 81, discussed the use of CAM with a health care employee, where 18.2% asked about the interaction with traditional therapy, 18.2% asked about the effectiveness of CAM, 16.7% asked whether it should be used, and 15.2% asked about the safetyof CAM [16].

These issues relate to the results of another study on counseling / agreement with the treating physician on the use of complementary medicine. Thus, one third of the adult population in the United States uses CAM, although 42.3% of users do not discuss the application of alternative methods with their primary care physicians. Consequently, physicians should consider the issue on more active patient survey, especially with regard to methods that may have a medical significance [17].

The use of complementary (alternative) medicine is also common among patients with type 2 diabetes around the world. A bright example is the study conducted in Saudi Arabia, where there is a high incidence of diabetes mellitus. The average age of patients was 51.6 ± 10.6 years, 43.4% of them were males. The prevalence of CAM practice was 30.5%. Factors that motivate the use of CAM-therapy within patients with diabetes were: age older than 51, unemployment and knowledge of participants about the effectiveness of CAM products [18].

A significant proportion of people with mental disorders address for the help to specialists in complementary (alternative) medicine. In the framework of the World Mental Health Survey, a Compositional International Diagnostic Interview was conducted to determine the presence of mental disorders for the last 12 months among 138,801 participants aged 18-100 years. As a result of the conducted study, the data was obtained regarding the dependence of the degree of using complementary medicine to patients with mental disorders from the country, mental disorders and their severity, as well as functioning of the health care system. It has been found out that the application of non-traditional treatment methods is common among people with severe mental disorders, in high-income countries and among those receiving traditional care [19].

Medical institutions, including approaches and understanding of the complementary medicine's effects and efficacy, are of great importance for the acceptance and / or rejection of complementary medicine in any country.

Departments of alternative medicine exist in France, Germany, Hungary, Italy, Norway, Sweden, Switzerland and the UK. According to the study published in 2006, alternative methods training is available in 42% of the Medical Faculties of the 15 'old' EU countries and 20% of the Faculties in the 'new' EU countries. Some courses in non-traditional medicine are mandatory in 13% of the Medical Faculties of the EU-15 countries. And there are no compulsory courses at any of the Medical Faculty of the 'new' EU countries [20].

At the same time, for example, the Department of Rehabilitation and Non-Traditional Medicine of anylo. Halytsky Lviv National Medical University, carries out training of specialists on specialization "Folk and Alternative Medicine". We believe that the inclusion of courses on alternative methods of treat-

ment in the curriculum of medical training is important for the complex training of specialists, and thus it is a guarantee of qualitative training on "clear" educational programs, as opposed to healers who may not even have medical education. That is, one of the ways to ensure the quality of non-traditional medicine services and to minimize cases of fraud in this area may be the requirement for mandatory medical training of individuals. At the same time, medical institutions, in addition to the basics of classical medical information, should be provided with complementary medicine training.

CONCLUSIONS

The conducted research allows to make such conclusions. Complementary medicine is used by a large part of the population, both in Ukraine and in the world, and therefore requires proper legal regulation and a definite form. In particular, it concerns the control over the activities of healers and their medical training, the definition of perspective directions for the development of this type of medicine and their implementation at the state level, the integration of alternative medicine into the official, the improvement of the system of professional training of physicians by introducing alternative methods, determining the volume of efficiency and benefits of providing such methods of medical care, the expansion of international cooperation and the exchange of experience with foreign specialists practicing in this area.

REFERENCES

- 1. EUR/RC62/8 Health 2020: policy framework and strategy. [Internet] [cited 2019 Apr 03]. Aviable from: http://www.euro.who.int/en/about-us/governance/regional-com-mittee-for-europe/past-sessions/sixty-second-session/documentation/working-documents/eurrc628-health-2020-policy-framework-and-strategy.
- 2. EUR/RC62/12 Rev.1 Strategy and action plan for healthy ageing in Europe, 2012—2020 [Internet] [cited 2019 Apr 03]. Aviable from: http://www.euro.who.int/__data/assets/pdf_file/0008/175544/RC62wd10Rev1-Eng.pdf.
- 3. Establishing a European centre for disease prevention and control, regulation (EC) No 851/2004 of the European parliament and of the council of 21 April 2004 [Internet] [cited 2019 Apr 03]. Aviable from:http://ecdc.europa.eu/en/aboutus/Key%20Documents /0404_KD_Regulation establishing ECDC.pdf.
- Strategiia VOZ v oblasti narodnoi meditsiny (2002 2005 g.) [WHO strategy in the field of alternative medicine (2002-2005)] [Internet] [cited 2019 Apr 05]. Aviable from: http://whqlibdoc.who.int/hq/2002/WHO_EDM_TRM_2002.1_rus.pdf.
- 5. Abdullahi A. A. Trends and challenges of traditional medicine in Africa. African Journal of Traditional, Complementary and Alternative Medicine. 2011;8:115-123.
- 6. The regional strategy for traditional medicine in the Western Pacific (2011 2020). WHO Regional Office for the Western Pacific. Manila: [s. n.], 2012:1-60.
- 7. Osnovy zakonodavstva Ukrainy pro okhoronu zdorovia [Fundamentals of Ukrainian legislation on health care]: Zakon Ukrainy vid 19.11.1992 No. 2801-XII. [Internet] [cited 2019 Apr 05]. Aviable from:https://zakon.rada.gov.ua/laws/show/2801-12.

- 8. MOZ initsiiuie skasuvannia spetsialnoho dozvolu na zainiattia narodnoiu medytsynoiu [The MOH initiates the cancellation of a special permit for alternative medicine]. Ofitsiinyi sait MOZ Ukrainy. Novyny vid 4 sichnia 2018. [Internet] [cited 2019 Apr 05]. Aviable from: http://moz.gov.ua/article/news/moz-inicijue-skasuvannja-specialnogo-dozvolu-na-zajn-jattja-narodnoju-medicinoju.
- Proekt Zakonu pro vnesennia zmin do deiakykh zakonodavchykh aktiv Ukrainy No. 9062 vid 06.09.2018 r. [Draft Law on Amendments to Certain Legislative Acts of Ukraine No. 9062 dated September 6, 2018] [Internet] [cited 2019 Apr 05]. Aviable from http://w1.c1.rada.gov.ua/pls/zweb2/ webproc4_1?pf3511=64564.
- 10. Strategiia VOZ v oblasti narodnoi meditsiny (2014 2023 g.) [WHO strategy in the field of alternative medicine (2014 2023)]. Vsemirnaia organizatsiia zdravookhraneniia. [Internet] [cited 2019 Apr 05]. Aviable from:http:// apps.who.int/iris/ bitstre am/10665/92455/11/9789244506097_rus.pdf? ua=1.
- 11. WHA 62.13. Narodnaia meditsina [Alternative medicine]. Shestdesiat vtoraia sessiia Vsemirnoi assamblei zdravookhraneniia (18 22 maia 2009 g., g. Zheneva) Rezoliutsii i resheniia, prilozheniia. [Internet] [cited 2019 Apr 06]. Aviable from:http://awho.int/gb/ebwha/pdf_files/WHA62.../ WHA62_REC1-ru-P1.pdf.
- Pokhmurska-Hudym N. Analiz roli derzhavy u rehuliuvanni narodnoi ta netradytsiinoi medytsyny v riznykh krainakh Yevrosoiuzu [Analysis of the role of the state in regulating alternative and non-traditional medicine in different countries of the European Union]. Efektyvnist derzhavnoho upravlinnia. Zbirnyk naukovykh prats. 2015, s. 82-90.
- Yevtushenko V. Mizhnarodnyi ta ukrainskyi dosvid derzhavnoho rehuliuvannia narodnoi i netradytsiinoi medytsyny [International and Ukrainian experience of state regulation of alternative and non-traditional medicine]. Derzhavne upravlinnia ta mistseve samovriaduvannia. 2014, 3:133–144.
- 14. Zhang Q. The importance of traditional Chinese medicine services in health care provision in China. Universitas Forum. 2011.2(2):1-8.
- 15. Wider B. What cancer care providers need to know about CAM: the CAM-Cancer project. Focus on Alternative and Complementary Therapies Volume. 2013, I. 2.18: 95-100.

- 16. Karmali S, Markey G, Killian M, Ahmed G, Bird BR, Merfi CG. Ispolzovanie komplementarnoi i alternativnoi meditsiny u onkologicheskikh bolnykh, poluchaiushchikh khimioterapiiu v Irlandii [annotatsiia]. [The use of complementary and alternative medicine in cancer patients receiving chemotherapy in Ireland] V: Slushaniia Simpoziuma Raka molochnoi zhelezy San-Antonio 2018 goda; 2018 dekabr 4-8; San-Antonio, Tekhas Filadelfiia (Pensilvaniia): AACR; Cancer Res 2019; 79 (4 Suppl): Annotatsiia № P5-14-05. [Internet] [cited 2019 Apr 06]. Aviable from: http://cancerres.aacrjournals.org/content/79/4 Supplement/P5-14-05.short.
- 17. Dzhudi Dzhu. Neraskrytie ispolzovaniia dopolnitelnoi i alternativnoi meditsiny dlia vrachei pervichnoi pomoshchi [Non-disclosure of the use of complementary and alternative medicine for primary care physicians]. Vyvody iz Natsionalnogo oprosa zdorovia 2012 goda. 420 C.E., MMC 729, Minneapolis, MN 55455.
- 18. Znanie, otnoshenie i praktika patsientov s sakharnym diabetom 2 tipa k komplementarnoi i alternativnoi meditsine [Knowledge, attitude and practice of patients with type 2 diabetes mellitus to complementary and alternative medicine]. Zhurnal integrativnoi meditsiny. 2016, 14(3): 187-196. [Internet] [cited 2019 Apr 06]. Aviable from: https://www.sciencedirect.com/science/article/abs/pii/S2095496416602443.
- 19. De longe P., Vardenaar K., Khoenders Kh., Evans-Latsko S., Kovess-Masbezi V., Agilar-Gaksiola S., Tornikroft, Dzh. Kontakty dlia lits, stradai-ushchikh psikhicheskimi rasstroistvami, v oblasti komplementarnoi i netraditsionnoi meditsiny v 25 stranakh: rezultaty vsemirnykh issledovanii v oblasti psikhicheskogo zdorovia. [Contacts for people with mental disorders in the field of complementary and alternative medicine in 25 countries: results of worldwide mental health research]. Epidemiologiia i psikhiatriia. 2018. 27 (6), 552-567. [Internet] [cited 2019 Apr 06]. Aviable from: https://www.cambridge.org/core/journals/epidemiology-and-psychiatric-sciences/article/ complementary-and-alternative-medicine-contacts-by-persons-with-mental-disorders-in-25-countries-results-from-the-world-mental-health-surveys/ADB61143925EEB39FE4F5DAC4 77E330A.
- 20. Orsolya Varga O. Status of Complementary and Alternative Medicine in European Medical Schools / Orsolya Varga O., Márton S., Molnár P. [S. p.:s. n.], 2006. P. 41-45.

Authors' contributions:

According to the order of the Authorship

Conflict of interest:

The Authors declare no conflict of interest

CORRESPONDING AUTHOR

Liudmyla O. Samilyk

University of the State Fiscal Service of Ukraine, 31, Universitetskaya str., Kyiv region, Irpin, 08201, Ukraine e-mail: sa4345@ukr.net

Received: 21.03.2019 **Accepted:** 29.04.2019