

Анотації наукових робіт

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**TREATMENT OF BACTERIAL VAGINOSIS
USING ANTIMICROBIAL AND ANTISEPTIC PREPARATIONS***L.B. Markin, O.S. Medvedeva**Danylo Halytsky Lviv National Medical University, Lviv, Ukraine*

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The aim of the research: to evaluate the clinical and microbiological efficacy and safety of vagiklin used by women with bacterial vaginosis (BV).

Materials and methods: 40 women of reproductive age (19–46 years old) with BV diagnosed by clinical criteria: an adherent and homogenous grayish-white vaginal discharge; a vaginal pH exceeding a value of 4.5; the presence of clue cells; a fishy or amine odor after the addition of a 10% potassium hydroxide solution, were examined using a general clinical study, microscopy of gram-stained smears, a cultural study of vaginal discharge. Women were excluded for the following reasons: pregnancy, menstruation, antibiotic use within the previous two weeks, the use of chemical contraceptives, detect gonorrhoea, genital chlamydia, trichomoniasis. Vagiklin was used as vaginal capsules once per day during 7 days. Each capsule contains clindamycin (100mg) and clotrimazole (100 mg). A control examination was made 7 days and 1 month after its administration.

Results: The positive results of treatment Vagiklin obtained in 36 (90%) women after 7 days of treatment. Conducting a month control studies showed that 33 (82.5%) women have sustained positive results. No drug-related adverse reactions were observed in any case.

Conclusions: Vagiklin is an effective agent for treatment BV, well tolerated, easy-to-use, and highly acceptable.

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**CORRECTION OF VITAMIN D DEFICIENCY IN WOMEN
WITH POSTMENOPAUSAL OSTEOPOROSIS***N.I. Balatska**D.F. Chebotarev Institute of Gerontology NAMS of Ukraine, Kyiv, Ukraine*

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The aim of the research: to investigate the effect of combined calcium and vitamin D therapy (calcemin advance) on 25(OH)D level and concentration of bone turnover markers in patients with systemic postmenopausal osteoporosis.

Materials and methods: 20 women with systemic postmenopausal osteoporosis were examined. The average age of the patients was (63,0 [59,00; 68,00]) years. The study was performed during winter season to exclude the influence of seasonal factors on 25(OH)D level in the blood serum. Before and the end of the study it was evaluated the intensity of vertebral pain syndrome in the thoracic and lumbar spine and quality of life by EuroQoL-5D and ECOS-16. 25(OH)D, iPTH and bone turnover markers were evaluated by *Elecsys 2010* analyzer (Roche Diagnostics, Germany).

Results: Three month therapy didn't significantly change the intensity of vertebral pain syndrome in the thoracic and lumbar spine and didn't significantly influence quality of life by EuroQoL-5D and ECOS-16. Combine therapy with calcium and vitamin D increased 25(OH)D level from (35,86 [29,43; 54,14]) to (46,07 [33,75; 52,54]) nmol/l ($p < 0.05$). Bone formation marker decreased from (49,67 [29,40; 54,14]) to (46,50 [38,86; 56,08]) pg/ml ($p > 0.05$). Bone resorption marker (β -CTx) at baseline was (0,513 [0,305; 0,646]) ng/ml and reached (0,437 [0,344; 0,555]) ng/ml at the end of study ($p > 0.05$).

Conclusions: Prescriptions of combine therapy of calcium and vitamin D in patients with systemic postmenopausal osteoporosis during three winter months leads to significant increasing 25(OH)D level in blood serum ($p < 0.05$) and do not significantly influence the bone formation and resorption markers ($p > 0.05$).

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PROGNOSTIC VALUE OF THE RATIONAL STATIN THERAPY IN PATIENTS WITH STABLE DURATION OF CORONARY ARTERY DISEASE*T.M. Solomenchuk, V.A. Skybchuk, C.V. Semehen-Bodak, M.B. Mysyshyn**Danylo Halytsky Lviv National Medical University, Lviv, Ukraine*

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The aim of the research: To improve prognosis in patients with stable angina by means of statin therapy optimization, notably – switching from simvastatin to milligram- equivalent doses of atorvastatin.

Materials and methods: 894 patients with stable angina that didn't reach target blood lipid levels and/or clinical improvement during 3 month management with simvastatin were observed. On admission, after 1, 3 and 6 months of atorvastatin administration total cholesterol, low density lipoproteins, C-reactive protein levels, blood pressure, tolerance to physical activity and hospitalization incidence caused by acute coronary syndrome were assessed.

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Results: Following 6 months of the statin therapy optimization in observed group of patients was revealed the evidential: decrease of total cholesterol and low density lipoproteins levels (accordingly, from $6,46 \pm 0,04$ and $4,11 \pm 0,04$ mmol/l to $4,74 \pm 0,05$ and $3,00 \pm 0,03$ mmol/l), increased patients' percentage with target levels of total cholesterol and low density lipoproteins (from 8,1 to 54,5%) and blood pressure (from 45,9% to 87,9%), decreased patients quota with increased C-reactive protein levels (from 12,3% to 2,6%). On the background of atorvastatin treatment (20 mg daily) the nessecity in everyday usage of prolonged action nitrates declined from 37% to 15,9%, patients' quota with I functional class increased on 37,2% due to decline of the patients' quota with higher functional class degrees, admission incidence decreased from 15,9% to 3,9% caused by acute coronary syndrome.

Conclusion: Statin therapy optimization in patients with stable angina, shifting from simvastatin to milligram- equivalent doses of atorvastatin, notably results in declining of hospitalization incidence caused by acute coronary syndrome because of milder duration of angina due to lipid metabolism improvement, decrease of systemic inflammation and increased tolerance to physical activity.

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EVALUATION OF PATIENT'S SATISFACTION OF STATIONARY HEALTH CARE QUALITY AT DISCHARGING TIME FROM HOSPITAL

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The aim of the research: to determine the patients satisfaction with the quality of inpatient health care at discharging time from hospital.

Materials and methods: The anonymous questionnaire by the special elaborated protocols has been carried out. The survey covered 50 patients. The structure of the study group included patients of therapeutic and surgical type, which was hospitalized as planned and as urgent. The survey of respondent's attitude has been conducted on the last day of patients stay in hospital for prevention of engagement answers and their maximum objectification. The systematic, structure and logical, sociological (questionnaire), statistical, comparative and analytical methods of analysis have been used in investigation.

Results: The level of patient's satisfaction by quality of stationary medical ensuring at discharging time from hospital was investigated. The overwhelming dissatisfaction of respondents with stay conditions in the hospital, unsatisfactory economic availability of pharmaceutical preparations for interviewed on account of their low purchasing power was established. The quality of medical care supplying, patients considers as priority during medical ensuring.

Conclusions:

1. More than $\frac{1}{2}$ (52%) of respondents was inpatients who always seek a health care at the clinic by the residence place, 74% of them are satisfied with health care.
2. The priority ways in health care are considered: quality of health care – 42%, fast pain relief – 34%, brief treatment – 8% and painless – 6% of respondents.
3. Only 44% of patients are satisfied with stay conditions in hospitals; rest of 56% – partially satisfied or not satisfied at all, that is indicated on a low level of hotel services analyzed healthcare establishments.
4. It was founded the mainly unsatisfactory economic accessibility of medicines for respondents because of their low purchasing power, despite the fact that a large assortment of medicines are purchased at the patients cost, and this fact, in our opinion, is significant for patient satisfaction of health care quality.
5. Patients would recommend their physician (86%) and health care establishments (88%) for friends or relatives, despite the fact that only 84% of respondents were satisfied with the results of treatment.
6. We consider, that the indicators relating to the activities of the attending physicians, consultants, nurses and other staff, as well as factors of economic availability and drugs safety should included in the ranking indicators for assessing of health care establishments (department) activity or individual health professional.

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PECULIARITIES OF MAKING ADMINISTRATIVE DECISIONS BY MANAGERS OF HEALTHCARE ESTABLISHMENTS WITH DIFFERENT LEADERSHIP EXPERIENCE

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The aim of the research: to study the features of formation style of decision-making in health care establishments managers with different managerial work experience.

Materials and methods: The determination of management decision making style in 140 managers of health care establishments with different management work experience with application method «Assessing of management decisions styles» have been conducted. The assessment of management decision making of managers

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was carried out according 2 scales «Authoritativeness» and «Behavior in a problematic situation». The leaders of health care establishments were divided into 6 groups by the managerial work experience: 1st group – 0 to 1 year (n=12), 2nd – 2 to 3 years (n=20), 3rd – 4 to 6 years (n=20), 4th – from 7 to 10 years (n=20), 5th – from 11 to 19 years (n=26), 6th – 20 and more (n=42). Results of 4 persons were unaccounted since the non-complete data. The bibliographical, analytical, systematic methods of analysis and observation have been used in investigation.

Results: The proportion of executives who use indulgent style of decision-making reduces with the experience and the proportion of executives with marginal style increases. The executives with experience of 4-6 years have high rates on «authoritativeness», reflecting the presence of leadership characteristics as a precondition for the effectiveness of managerial work.

Conclusions:

1. It was established that the style structure depends on the length of managerial work. The autonomous style in the style structure is predominant among executives with 1 year experience, situational style is in the group with 2–3 years of experience, autonomous and authoritarian style is predominant for the group with 4–6 years of experience, autonomous style is in the group with experience of 7–10 years and 11-19 years, marginal style is typical for group with experience more than 20 years.
2. Dynamics of management decisions making styles reflects periods of professional activity in leadership positions: the adaptation period (until the 1st year) – realization style, professional development period (from 1st to 10 years) – realization and authoritarian style, stabilization period (11–19 years) – realization style, regression period (20 and more) – marginal style.
3. Transformation of styles during the professional activity is based on changing attitudes managers to subordinates.

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**PHARMACY SELECTION CRITERIA OF PHARMACY CONSUMERS
AS A BASIS FOR QUALITY ASSESSMENT OF PHARMACEUTICAL SERVICE**

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The aim of the research: the evaluation of pharmacy choice key factors from the point of view of the end user based on the analysis of the questionnaire survey of pharmacy consumers opinions; searching possible ways of using the obtained results in practice of Ukrainian pharmacies, including assessment of pharmaceutical services.

Materials and methods: The results of questionnaire survey of 342 pharmacy consumers of a private retail Pharmaceutical Company Ltd. «Market Universal Ltd» (Lviv), conducted in June and July 2012, have been analyzed. Systemic, sociological (questionnaire), statistical, analytical and comparative, modeling analyses have been used.

Results: According to respondents, the most essential criteria for choosing pharmacy include the following aspects: availability of essential drugs and/or commodities at the time of purchase (18,9%), reasonability of prices (16,3%), the ability to obtain the necessary information from pharmacists (15,5%) and positive reputation of a favourite pharmacy (13,5%). The most important factors identified by respondents conceptually correspond to pharmacy assignments due to the principles of GPP.

Conclusions:

1. Among 7 proposed criteria for selecting pharmacy none had obvious advantage for respondents (n=342, p<0,05). This, in our opinion, proves that consumers evaluate pharmaceutical services as a set of virtually equipollent elements, without selecting an explicit dominant among them.
2. Since there is no regulatory basis for national guidance on GPP and mechanisms for its implementation in Ukraine, it is reasonable for Ukrainian pharmacy directors focus on such management models which involve primarily the process and system approaches, including the standard ISO 9001:2009 «Quality Management System. Requirements» and consider management of both material and intangible assets of enterprises, including reputation.

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**PROBLEMS AND PERSPECTIVES OF IMPLEMENTATION OF LOCAL CLINICAL PROTOCOLS IN
HEALTH CARE ESTABLISHMENTS IN UKRAINE**

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The aim of the research: the analysis of the present state and the first effects of the national medical standardization system, as far as industry standards of health care, healthcare quality management comply to current legislation, and establish the threats and risks that may discredit both the idea of medical standardization and aforementioned regulations.

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Materials and methods: The legislative acts and the information resources concerning implementation of medical standardization in health care in Ukraine have been used as an objects of investigation. The study was conducted with application the following methods: systematic and comparative analysis, logical design.

Results: Analysis of regulations and available information resources concerning implement medical standardization in health care establishments in Ukraine in terms of current state and major threats and risks that may discredit the idea of medical standardization. It is founded as a result of our investigation, that existing state accreditation standards do not correspond to current state of health care Ukraine in general and standardization process of medical aid in health care establishments in particular.

Conclusion:

1. The legislative introduction of principles and requirements of medical standardization in health care in Ukraine caused the some problems concerning application of standards of preventive, diagnostic and treatment assistant, management and monitoring of health care quality in health care establishments different forms of ownership in real world economic crisis condition and contemporary sector reform.
 2. Existing standards of state accreditation do not corresponded current state of health care in Ukraine in general and standardization process of medical assistance in health care establishments, management of quality health care, so approaches and organization of state accreditation point to premature implementation; formal application of accreditation procedures discredits result's evaluation as an important structural element of healthcare quality management.
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ANALYSIS OF SPONTANEOUS REPORTING DATABASE AS AN IMPORTANT RESOURCE FOR STUDYING DRUG-DRUG INTERACTIONS

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The aim of the research: analysis of Ukrainian spontaneous reporting database as an important resource for studying drug-drug interactions (DDIs).

Materials and methods: objects of research include: all spontaneous adverse drug reactions reports in pregnant patients (n=127) collected in 2011 by pharmacovigilance in Ukraine; drug use instructions. The design of study was retrospective. The following methods were used: systemic, bibliographic, statistical, standardization and modelling. Conflict of interests: none declared.

Results: In 107 (84,3%) spontaneous adverse drug reactions reports among 127, at least 2 drugs were prescribed. In 107 reports, potential DDIs were identified in 73 reports, which formed group A. 34 adverse drug reactions reports formed group B. Both groups were compared for qualitative (seriousness of adverse drug reaction, use of additional pharmacotherapy) and quantitative (age, number of drugs) variables. Afterward we identified 141 DDIs and classified them as expedient, inexpedient and dangerous.

Conclusions:

1. In our opinion, spontaneous reporting database is a perspective resource for DDI study, including their clinical manifestations. It is proved by numerous publications in Europe and the USA. Such researches have not been conducted previously in Ukraine, despite the fact that their results are essential for the improvement of drug use instructions, namely, in the following aspects: «Incompatibility» and «Interaction with other drugs».
 2. The findings of our study enabled to form a list of the main clinical symptoms according to drug-drug combinations in a table format. We believe that the outcomes of our investigation can be applied as essential educational resource for training physicians in rational pharmacotherapy.
 3. It is found that patients with DDIs in schemes of pharmacotherapy more often need additional pharmacotherapy for elimination or correction of complications in comparison with patients without DDIs in schemes of pharmacotherapy ($p < 0,05$).
 4. The results of correspondence analysis showed that serious adverse drug reactions mostly occur when schemes of pharmacotherapy include 2 and 3 DDIs and considerably more rarely are associated with 1, 5 and 8 DDIs. At the same time, the use of additional drugs is mainly associated with 1 or 2 DDIs, less frequently with 3 or more DDIs.
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THE PROGRAMME OF PHARMACEUTICAL CARE FOR PATIENTS WITH METABOLIC SYNDROME IN PHARMACIES OF UKRAINE

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The aim of the research: the scientific substantiation of the elaboration, approbation and implementation of the programme of the metabolic syndrome pharmaceutical care on the example of a drugstore in Lviv.

Materials and methods: bibliographical, analytical, comparative, modeling, standardization, anthropometric, oscillometric, glucometric (express-test), SWOT-analysis.

Results: The implementation of a programme elaborated by us in practice of a Lviv drugstore proved the reasonability of its application. Basic (85) and extra (376) risk factors of the metabolic syndrome progress were revealed at the approbation stage of this programme in the drugstore consumers. It has been determined that 21 patient became aware of risk factors for the first time due to the participation in the above mentioned programme. In patients selected for the participation in the research no risk factors have been revealed only in 10 people (6,17%). The combination of two extra risk factors 53 (32,72%) occurred the most frequently.

Conclusions: The elaborated programme of the metabolic syndrome pharmaceutical care in terms of the stages of its conducting is intended for: all visitors of drugstores (spreading information leaflets on metabolic syndrome among patients); patients who wish to test the risk factors availability (the measurement of blood pressure, blood glucose level, weight index, etc.); patients with metabolic syndrome verified diagnosis (pharmacotherapy optimization by the detection of drug-related problems and modeling of the feedback with both a patient and a physician).

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PHARMACOEPIDEMIOLOGICAL ASPECTS OF ACUTE CEREBROVASCULAR PATHOLOGY

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The aim of the research: Optimization of treatment and prevention of acute cerebrovascular pathology (CVP), pharmaceutical care in this pathology based on a study of the real consumption of drugs.

Materials and methods: Methods - information retrieval, analysis and synthesis of data, ABC -, formal VN -, ATC / DDD and DU90% analysis. Objects of study are sources of medical and pharmaceutical information leaflets of medical appointments for inpatients in the neurological department of one of the health care establishment in the city.

Results: With ATC/DDD analysis of drugs used in pharmacotherapy of acute CVP amount of consumed DDDs was set. DU90% analysis showed that 90% of consumed DDDs were accounted for 37 drugs. Among them for 30 drugs a correlation between the frequency of appointments and the number of consumed DDDs was observed. Formal VN - analysis of drugs of DU90% showed that 8 drugs (21.6%) did not relate to vital drugs in acute CVP. An ABC - analysis of drug costs for patients with acute CVP using minimum wholesale prices and average retail cost was conducted and its basic characteristics were set. Formal VN - analysis of these drugs showed that vital medicines were in all 3 ABC matrix group.

Conclusions: Research of real consumption of drugs by patients with acute CVP enables optimization of treatment and prevention of acute CVP and improvement of pharmaceutical care in this pathology.

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OPTIMIZATION CONDITIONS OF QUETIAPINE ISOLATION AND DETERMINATION IN BIOLOGICAL SAMPLES

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The aim of the research: research of optimal techniques of Quetiapine isolation from biological objects; purification of metanolic extracts by solid phase extraction, and establishing optimal conditions for identification and quantification of Quetiapine at their metabolites presence by high performance liquid chromatography (HPLC).

Materials and methods: Were applied four techniques for Quetiapine and their metabolites isolation from rats liver and brain: water acidified with oxalic acid, acetonitrile acidified with 30% acetic, 1 M chloride and oxalic acids respectively. Quetiapine dose for rats was acute toxic – 350 µg/g. Quetiapine and metabolites were extracted with chloroform (pH 6–7) and cleaned on cartridges Oasis (30 mg). HPLC on column ACE 5C18 was used for Quetiapine quantification

Results: Equation of calibration curve regression is $Y = 4,98 \cdot 10^4 X - 1.32 \cdot 10^4$ ($r = 0,999542$) in range of Quetiapine concentration from 1 to 40 µg/ml. In brain were determined 3 metabolites and in liver – 6 methabolites of Quetiapine. Acetonitrile acidified oxalic acid is the better extragent. Recovery of Quetiapine with acetonitrile

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from liver is 797–834 $\mu\text{g/g}$ and from brain 163–187 $\mu\text{g/g}$. Percentage of Quetiapine metabolites in brain is 26,3–28,2 % and in liver 34,7–38,5%.

Conclusions:

1. HPLC technique for Quetiapine identification and quantitative determination on ACE 5C18 (250 mm x 4,6 mm) column and detecting at 210 nm were elaborated.
 2. Efficiency of Quetiapine isolation from rats' liver and brain (in acute toxic dosages) were compared. 797–834 μg of Quetiapine was isolated from 1 g of liver and 163–187 μg – from 1 g of brain using acetonitrile acidified oxalic acid.
 3. Part of Quetiapine metabolites in brain after 24 hours from oral administration was 26,3–28,2% and 34,7–38,2% in liver.
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SPECIAL FEATURES OF PROINFLAMMATORY REACTIONS UNDER THE CONDITIONS OF MODELING THE ACTIVITY OF ENTEROSALIVARY RECIRCULATION OF NITRITES.

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The aim of the research: to investigate the role of enterosalivary recirculation (ENR) in development of mechanism responsible in proinflammatory reactions as well as role of IL-1 β i GRO/CINC-1 cytokine secretion in gut.

Materials and methods: rats were used with dose-depended treatment without/with mCSE in dose 0,5 ml/200 gr under mESNR by acid blocks atropine (3 mg/kg), ranitidine (100 mg/kg), L-NAME (10 mg/kg) and their combination during 3 days. *Cucurbita maxim sweet* seed extract (mCSE), Ukrainian plant hybrid kavbuz from watermelon and pumpkin, was used for correction. Content of IL-1 β , GRO/CNC-1 was determined via ELISA.

Results: ESNR impairment was estimated as nonerosive reflux esophagitis, accompanied by increased IL-1 β , GRO/CNC-1 synthesis. mCSE potently prevented cytolytic response to changes of mESNR.

Conclusions: ENR is a cytoprotective component, mCSE prevents ENR-induced gut lesions via suppression of inflammatory mediators such as IL-1 β , GRO/CNC-1, the important pathogenic factors in gut and shows significant anti-inflammatory and antiulcer activity.